

**MIRACLE REPORTS, MORAL PHILOSOPHY,
AND CONTEMPORARY SCIENCE**

by

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I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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ABSTRACT

Miracle Reports, Moral Philosophy, and Contemporary Science

In the case of miracle reports, David Hume famously argued that there is something about "the very nature of the fact" to which the testimony testifies which contains the seeds of the testimony's destruction as credible evidence. The Humean idea, still held by several important contemporary philosophers, is that the very concept of miracle has logical implications for the world, these implications (especially those arising from a miracle's law-violating nature) make a miracle extremely improbable, and so, at least for thinking people, reports of a miracle's occurrence are rendered unbelievable. Hume and apparently some of his contemporary disciples view this feature of miracle reports as an "everlasting check" against reasonable belief in reports of *any* miracle's occurrence.

At the risk of seeming unfair to Hume, but taking seriously Hume and company's apparent judgment that the Humean argument is at least a *present day* check on miracle reports, this dissertation transfers the heart of the Humean argument *into the present* and it makes a case for thinking that, today, the Humean argument *backfires*. In this dissertation a close conceptual look is taken of the "very nature" of the miraculous object of a miracle testimony, a very nature paradigmatically given to us in the reports of Jesus' (allegedly) miraculous resurrection and virgin birth; and then an examination occurs of the logical implications of this conceptual analysis in the context of what science tells us is reasonable to believe about the world at the beginning of the 21st century, and in the context of what some moral philosophizing allows us to reasonably believe as well. The result, this dissertation contends, is that, contrary to what Hume and company think, the concept of miracle contains the seeds not for *weakening* the credibility of a miracle testimony but for *strengthening* it.

The thesis of this dissertation is the following: On the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications – when examined in the context of some implied/predicted findings from contemporary science plus some implied/predicted discernments from moral philosophy – serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity or power to make sense of some facts which suggest such an operation.

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DEDICATION

To Jesus¹

*“We love, because He first loved us.”
1 John 4:19 NASB*

†

¹Because there is considerable confusion today about who Jesus is, a footnote for the sake of clarification is appropriate here. For the reader who desires to achieve a philosophically astute and historically informed understanding of Jesus' identity and mission, this dissertation's author recommends Douglas Groothuis' slim volume *On Jesus*, Wadsworth Philosophers Series (Toronto: Thomson/Wadsworth, 2003).

TABLE OF CONTENTS

Overview

Abstract	iii
Acknowledgments	iv
Dedication	viii
INTRODUCTION	1
CHAPTER 1: MIRACLE A reformulation of the concept, and a look for pointers to clues	26
CHAPTER 2: MORAL PHILOSOPHY The failure of moral relativism and the success of minimal intuitionism as clues for thinking that intelligent human beings have objective moral value	91
CHAPTER 3: THE BIG BANG A finding from contemporary science as a clue for thinking that there is a very powerful, transcendent cause which/who can produce physical stuff	167
CHAPTER 4: INTIMATIONS OF DESIGN Some findings from contemporary science as clues for thinking that there is a very powerful, transcendent, <i>intelligent</i> cause	212
CHAPTER 5: A PLAUSIBILITY STRUCTURE FOR MIRACLES The metaphysical implications of the reformulated miracle concept as background knowledge	305
APPENDIX A visual argument for intelligent causal agency	385
BIBLIOGRAPHY	386

TABLE OF CONTENTS
In Detail

Abstract	iii
Acknowledgments	iv
Dedication	vii
INTRODUCTION	1
I. Introductory Remarks & Thesis Statement	1
II. Chapter Overviews	16
A. Chapter One	16
B. Chapter Two	18
C. Chapter Three	20
D. Chapter Four	21
E. Chapter Five	22
F. Summary Overview	23
CHAPTER 1: MIRACLE	26
A reformulation of the concept, and a look for pointers to clues	
I. Introductory Remarks	26
II. Subjective & Objective Senses	27
III. Philosophical Conceptions	34
A. Four Major Historical Thinkers	34
1. Augustine of Hippo	34
2. Thomas Aquinas	36
3. John Locke	40
4. David Hume	42
B. Major 20th-Century Thinkers	45
1. Richard Swinburne	45
2. Francis Beckwith	47
3. C. S. Lewis	49
4. Robert Larmer	50
IV. A Refined Philosophical Definition	53
A. Senses of Miracle Excluded (Bracketted) Here	53
B. The Sense of Miracle of Interest Here	55

C.	Conditions Number One & Number Two	57
1.	Conditions One & Two Considered (Introduction)	57
2.	The Absurdity of the Violation Concept of Miracle	58
(a)	Regularity Theory	61
(b)	Nomic Necessity Theory	64
(c)	Causal Dispositions Theory	68
(d)	Sub-conclusion	69
3.	The Non-absurdity of the Non-violation Concept of Miracle	70
(a)	A Defence of the Non-violation Concept of Miracle	71
(b)	Some Clarifications, to Emphasize the Pointers	77
D.	Condition Number Three	79
1.	Condition Number Three Considered	79
2.	Some Clarifications, to Emphasize the Pointers	83
E.	Condition Four	84
1.	Condition Four Considered	84
2.	Some Clarifications, to Emphasize the Pointers	86
V.	Conclusion	89

CHAPTER 2: MORAL PHILOSOPHY

91

The failure of moral relativism and the success of minimal intuitionism as clues for thinking that intelligent human beings have objective moral value

I.	Introductory Remarks	91
II.	Moral Relativism	95
A.	Normative Ethical Relativism	95
1.	The Cultural Differences Argument	96
(a)	Exposition	96
(b)	Evaluation	99
(i)	The main premise seems very much to be overstated	99
(ii)	Even if the premise were true, it does not provide sufficient support for the conclusion	104
(iii)	The conclusion is extremely problematic	107
(c)	Sub-conclusion	115
B.	Ethical Subjectivism	115
1.	Assessing the Consequences of Ethical Subjectivism	117
2.	Sub-Conclusion	120
III.	A Case for Objective Moral Value: Minimal Intuitionism	120
A.	Some Clarifications	121
B.	An Appeal to Intuition	128
1.	Moral Relativism (again), for starters	128
2.	Utilitarianism	132
3.	Contractarianism	134

- 4. Survivalist/Evolutionary ethics 140
- 5. The Golden Rule 144
- 6. Kant's ethics 145
- 7. Ross's Intuitionism 146
- 8. Natural Law theory 147
- 9. Excursus on Contemporary Human Rights:
Vital Needs Human Rights theory 147
- 10. Sub-conclusion, and one more argument 153
- C. Objections (and Replies) 154
 - 1. Objection #1: Are feelings merely being projected? 154
 - 2. Objection #2: What about Non-Minimal-Intuitionists? 156
 - 3. Objection #3: Mysterious moral facts? 160
 - 4. Objection #4: What about Intuitionism's problems generally? 162
 - 5. Objection #5: Value is a function of size? 164
 - 6. Sub-Conclusion 165
- IV. Conclusion 165

CHAPTER 3: THE BIG BANG

167

A finding from contemporary science as a clue for thinking that there is a very powerful, physically transcendent cause which/who can produce physical stuff

- I. Introductory Remarks 167
- II. A Clarification Concerning Cause 171
- III. Some Evidence for the Big Bang 172
- IV. Appeal to the Intuitively Obvious 177
 - A. Exposition 177
 - B. Evaluation 179
 - 1. Objection from Draper 181
 - 2. Objection from Smith 182
- V. The Argument from Empirical Facts 184
 - A. Exposition 184
 - B. Evaluation 185
 - 1. Objection from Mackie 185
 - 2. Objection from Smith (again) 188
 - 3. Objection from Grünbaum 194
 - 4. Objection from Draper (again) 196
 - 5. Objection from Le Poidevin & Narveson 198
 - 6. Possible Objection from Hume 199
 - C. Sub-Conclusion 203

VI.	An Objection from the Kantian <i>a priori</i> Principle of Causality	203
	A. Exposition	203
	B. Response	204
VII.	Inferences about the Cause of the Universe's Beginning	208
VIII.	Conclusion	210

CHAPTER 4: INTIMATIONS OF DESIGN

212

Some findings from contemporary science as clues for thinking that there is a very powerful, transcendent, *intelligent* cause

I.	Introductory Remarks	212
II.	Clarifying the Concept of Intelligent Design	214
III.	Defending the Legitimacy of Intelligent Causes as Explanations	226
IV.	Large-Scale Design: Fine-Tuning of the Universe	238
	A. The Evidence for Fine-Tuning	238
	B. Accounting for the Fine-Tuning	245
	1. No explanation is needed?	245
	2. A Case for Deep Mind Affinity	247
	3. Dealing with the Competition	252
	(a) Competing Interpretation #1: Chance/Brute Fact Theory	253
	(b) Competing Interpretation #2: Fundamental Law Theory	254
	(c) Competing Interpretation #3: Multiple Universe Theories	257
	(i) Challenging multiple universe theories directly	257
	(ii) Conceding multiple universe theories	263
	for the sake of argument	263
	4. Sub-Conclusion	268
V.	Small-Scale Design: Molecular Machinery and Codes	268
	A. Complex Biochemical Molecular Machines	268
	1. The Evidence for Complex Biochemical Molecular Machines	268
	2. Accounting for the Machines	270
	(a) A Case for Deep Mind Affinity	270
	(b) Dealing with the Competition	278
	B. DNA's Language/Code	290
	1. The Evidence for DNA's Language/Code	290
	2. Accounting for DNA's Language/Code	291
	(a) A Case for Deep Mind Affinity	291
	(b) Dealing with the Competition	293

VI.	A Cumulative Case	302	
VII.	Conclusion	304	
CHAPTER 5: A PLAUSIBILITY STRUCTURE FOR MIRACLES			305
The metaphysical implications of the reformulated miracle concept as background knowledge			
I.	Introductory Remarks	305	
II.	Clarifying Plausibility	310	
III.	The Universe as a Miracle Writ Large	317	
	A. The Satisfaction of Conditions Two, Three and Four	317	
	B. The Satisfaction of Condition One	320	
	C. Sub-Conclusion	323	
IV.	Miracle Writ Large Enhances the Plausibility of Miracles Writ Small	323	
	A. Some Facts Concerning Jesus' Alleged Resurrection	324	
	B. The Plausibility of Jesus' Alleged Resurrection	337	
	C. Objections (and Replies)	344	
	1. Fallacy of Division Objection	344	
	2. Question-Begging Objection	345	
	3. Mystery Objection	353	
	4. Troeltsch/Flew-type Objection(s)	360	
	(a) Troeltsch/Flew objection commits question-begging fallacy	361	
	(b) Troeltsch/Flew objection confuses crucial concepts	372	
V.	Summary Review & Upshot	375	
VI.	Conclusion	376	
VII.	Post Script on Philosophical Significance	377	
APPENDIX			385
A visual argument for intelligent causal agency		385	
BIBLIOGRAPHY			386
I.	Books, journal articles, M.A. theses, Ph.D. theses, encyclopedia entries	386	
II.	Booklets, papers, magazines, online articles, videos, audio-tapes, etc.	418	

INTRODUCTION

A miracle may be accurately defined [as] *a transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent.*

A miracle is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, *from the very nature of the fact*, is as entire as any argument from experience can possibly be imagined.

- David Hume, "Of Miracles"¹

I. Introductory Remarks & Thesis Statement

The reasonable character of belief in miracles is important for many religious believers. For instance, for Christians, whether or not it is reasonable to believe that Jesus' virgin birth and resurrection actually occurred in history has been a concern of crucial importance because these two alleged miracles have been considered traditionally to be among the foundational miracles of the Christian religion.² According to the

¹David Hume, *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, edited by L. A. Selby-Bigge, 3rd edition, revised by P. H. Nidditch (Oxford: Clarendon Press, 1975), 115n., 114. Italics in the first quote is in the original; italics in the second quote is added for emphasis. Hereafter, I will refer to Hume's *Enquiry Concerning Human Understanding* (as found in the aforementioned work) simply as *Enquiry*.

²Although questioned by some contemporary New Testament scholars, the claim that Jesus' virgin birth and Jesus' resurrection are two of the foundational or essential miracles of historic Christianity appears as *prima facie* obvious from reading the New Testament. Also, this claim is consistent with and central to Christian tradition, as the major creeds of the Christian churches show. See Philip Schaff, editor, *The Creeds of Christendom*, 6th edition, 3 volumes (Grand Rapids, Michigan: Baker Book House, 1983). Also, see: Rowan Williams, "Resurrection," and Andrew Louth, "Virgin Birth," in *The Oxford Companion to Christian Thought*, edited by Adrian Hastings (Oxford: Oxford University Press, 2000), 616-618 and 740, respectively.

Although there are symbolic aspects to the two miracles, the majority of the Christian churches have

contemporary philosopher Antony Flew, "the question whether . . . Jesus did [physically] rise from the dead is of supreme theoretical and practical importance."³ Why? Because, as Flew (himself an unbeliever) points out, "the knowable fact that [Jesus] did [literally resurrect], if indeed it is a knowable fact, is the best, if not the only, reason for accepting that Jesus is the God of Abraham, Isaac, and Israel."⁴ In other words, if we were to know or find it reasonable to believe that Jesus' miraculous resurrection actually occurred, then that knowledge or belief would go some way to provide grounds for thinking -- taking on faith -- that Jesus is God

taken the miracle claims as literally true. For a defence of the conservative, literal perspective vis-à-vis a defence of a liberal, non-literal perspective, see: Paul Copan, editor, *Will the Real Jesus Please Stand Up? A Debate between William Lane Craig & John Dominic Crossan* (Grand Rapids, Michigan: Baker Books, 1998); and Paul Copan & Ronald K. Tacelli, editors, *Jesus' Resurrection: Fact or Figment? A Debate between William Lane Craig & Gerd Lüdemann* (Downers Grove, Illinois: InterVarsity Press, 2000). Craig takes the conservative position; Crossan and Lüdemann are much more liberal.

In defence of the view that the Christian religion is important to many people today, it may be helpful to remember that Christians make up no small part of the contemporary global population. Of the world's nearly 6 billion people, Christians account for 32.79%, Muslims 19.60%, Hindus 13.31%, Buddhists 5.88%, Sikhs 0.38%, Jews 0.24%, other religions 12.83%, non-religions 12.53%, and atheists 2.44% (this is a 2001 estimate from *CIA The World Factbook* which is an online resource [<http://www.odci.gov/cia/publications/factbook/fields/2122.html>]).

³Antony Flew, in Gary R. Habermas & Antony Flew, *Did Jesus Rise from the Dead? The Resurrection Debate*, edited by Terry L. Miethe (San Francisco: Harper & Row, 1987), 3.

⁴Flew, *Did Jesus Rise from the Dead?*, 3. By "reason" Flew and I mean *objective reason* -- a reason that is grounded in the extra-mental physical world and is not merely a subjective revelation (i.e., it is not revealed by God directly to the individual's mind). This is not to say that God, if God exists, cannot or does not provide revelations directly. It very much seems, however, that revelations alleged to come directly from God to one's mind need to be checked against the evidence of the world, to see if they match up with what God may have revealed in the world objectively, and so thereby avoid false revelations (due, say, to self-delusion, or demonic deception, if demons exist). At any rate, the possibility of direct revelations from God, though important, is not a subject of interest here.

Arguably, Flew's claim that Jesus' resurrection would provide "the best" reason for accepting Jesus' claims can be contested. For example, perhaps Flew could ask that Jesus create a cloud formation which appears once a year, only on Flew's birthday, and spells out "God loves you -- Yes you, Antony Flew!" Perhaps, then, it should be noted that Flew does not seem to be comparing Jesus' resurrection to all possible signs or reasons that God might provide. That is, Flew does not seem to be taking Jesus' resurrection to be the best of all possible signs or reasons. Rather, Flew seems merely to be looking at the evidence that the Christian faith actually offers. Of *that* evidence, Jesus' resurrection is the best publicly-accessible reason for accepting (or at least for considering accepting) Jesus' claims.

The need to exposit the credibility of the resurrection (as shown by Flew) is also clear to contemporary philosophers who are believers, as Richard Swinburne's work exemplifies. See Richard Swinburne, *The Resurrection of God Incarnate* (Oxford & New York: Clarendon Press, 2003).

incarnate miraculously born of the virgin Mary, as reported by the New Testament.⁵ Thomas Aquinas seems to have this idea about miracles in mind in the following passage: "In the words of the saints the Incarnation is the miracle of miracles, because it is greater than all other miracles, and because all other miracles are ordered to it. For this reason not only does it lead us to believe in other articles of faith, but other miracles lead us to believe in it: since nothing prevents one miracle from leading to faith in another...."⁶ The miracle that can be seen, the resurrection, allows one to take on faith the truth of the teaching that a miracle that cannot be seen, the virgin birth, occurred -- and these allow one to take on faith the miracle of the Incarnation.⁷

In addition, the miracles of Jesus' resurrection and virgin birth seem very much to give some grounds for taking on faith the so-called "gospel" or good news proclaimed by Jesus and Jesus' disciples. According to the New Testament documents (as traditionally understood), the good news is that Yahweh, the holy and just creator God described in the Old Testament, loves sinful humans so much that (1) He entered the physical world to take the punishment for sin (which is death) onto Himself, (2) He defeated the power of death by rising from the grave, and (3) He offers eternal life to all people who would freely turn from their sinful ways to place their trust in Him. In other words, God provided atonement for sin to redeem humankind, and this

⁵See Luke 1:26-38, John 1:1-14, and John 20:24-31.

⁶Thomas Aquinas, *Quaestiones Disputatae de Potentia* 6.2, translated by the English Dominican Fathers, under the title *On the Power of God* (London: Burns, Oates & Washbourne, 1933), 167.

⁷It should be noted that Aquinas's characterization of the Incarnation as a miracle that leads to belief in other miracles or articles of faith may seem confusing to some. One might think that the Incarnation does not count as evidence of the miracle type, because it would be difficult to tell that Jesus is the Incarnation just by looking, and so the Incarnation does not lead to belief in the other miracles or articles of faith. One need not think so. It is not a requirement of a miracle, to be a miracle, that it be used as evidence (think of a miracle of healing, for the sake of compassion only). Because *some* miracles can be used as evidence, it does not follow that *all* miracles should be used as evidence. So, if one believes without publicly-accessible evidence that Jesus is the Incarnation (e.g., one is given an undoubtable direct revelation in one's mind from God), then, given that belief, it is reasonable to believe the articles of faith that Jesus would have us believe. Via such an argument from authority, the Incarnation miracle can lead to belief in other miracles or articles of faith. Of interest in this dissertation, though, are miracles that *can* be used as publicly-accessible evidence.

atonement can be appropriated via faith.⁸

The crucial question, then, seems to be this: Is it reasonable to believe that the miracles of Jesus' resurrection and virgin birth actually occurred?⁹

The *prima facie* implausibility of the occurrence of these two miracles makes David Hume's work on miracles all the more trenchant, for he has famously argued that it is *not* reasonable to believe *any* report that a miracle has actually occurred.¹⁰ Indeed, Hume wrote with enthusiasm, "I flatter myself, that I have

⁸One might wonder whether the gospel could be true if there were no resurrection. It seems that it would not be, since the resurrection is needed, for theological reasons, to defeat the power of death. Also, without the resurrection of Jesus, the gospel claim (if, for the sake of argument, it could be true without the resurrection) would be just another religious claim, to be accepted or rejected by blind faith. For more on the gospel, see: Alister E. McGrath, "The Doctrine of Salvation in Christ" & "The Doctrine of Human Nature, Sin, and Grace," in *Christian Theology: An Introduction*, 2nd edition (Oxford: Blackwell Publishers, 1997), 386-422 & 423-460, respectively.

In this dissertation, reference to God will occasionally be made via the masculine gender pronoun (e.g., "Himself" or "He", etc.). By making reference to God in this way the implication is not that God is male. Sexuality, it seems, is attributable to the creatures, not the Creator (except, perhaps, when God allegedly became a human being in the man Jesus). However, the use of "It" is inaccurate because it is best used in referring to impersonal things, but God is a personal being. Also, the use of "S/He," "He or She," or "He/She" seems too cumbersome. For simplicity's sake, then, reference to God will occur via the traditional usage of masculine gender pronouns. For a detailed look at the issue of God and the use of masculine gender pronouns, see Vern S. Poythress & Wayne A. Grudem, *The Gender-Neutral Bible Controversy: Muting the Masculinity of God's Words* (Nashville, Tennessee: Broadman & Holman Publishers, 2000).

Also, in this dissertation references to a supernatural Creator such as God or some God-like being will be capitalized (i.e., the first letter of the word will be capitalized). "God" capitalized is indicative of His status in most belief systems; there is also the additional benefit that the capitalization in pronoun use also enables more perspicuous reference to antecedents.

⁹A personal note: It should be pointed out that my interest in the occurrence of these miracles is not due to an apologetic concern. My interest stems from a long and deeply held concern to seek the truth about this matter. This is not to say that the answering of the question in a positive way does not have apologetic value, for it surely does (as would a negative answer have apologetic value for, say, an atheist view). Still, my primary concern in this dissertation is *truth-seeking*, not the doing of apologetics. Apologetics is (and should be) an endeavour that is subsequent to truth-seeking. Otherwise, apologetics turns into mere self-justification and begins to look suspiciously like propaganda (in the morally objectionable sense of the word).

A closely-related note of clarification: It should also be pointed out that this dissertation is not an attempt to defend Christianity *per se* as a particular belief system in all its *minutiae*. The above discussions of the gospel and the foundational nature of the miracles of central interest in this dissertation are an attempt to provide broad motivation, that is, motivation beyond my interest alone, for the topic of this dissertation.

¹⁰Hume, *Enquiry*, chapter 10. For a close look at Hume's argument in the context of his philosophy of knowledge, see Hendrik van der Breggen, "Hume, Miracle Reports, and Credibility" (M.A. thesis, University

discovered an argument... which, if just, will, with the wise and learned, be an everlasting check to all kinds of superstitious delusion, and consequently, will be useful as long as the world endures. For so long, I presume, will the accounts of miracles and prodigies be found in all history, sacred and profane."¹¹ As the Hume citation at the beginning of this introduction makes clear (this passage from Hume will be repeated in the next sentence), Hume thought that in the case of a miracle report what it is that is reported is the reason for not believing the report of its occurrence. For the sake of emphasis and clarity, here again are Hume's words: "A miracle may be accurately defined [as] *a transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent*"; "A miracle is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, *from the very nature of the fact*, is as entire as any argument from experience can possibly be imagined."¹² The idea is that something about the object of the testimony -- i.e., something about "the very nature of the fact" to which the testimony testifies -- contains the seeds of the testimony's destruction as credible evidence. According to Hume, the (alleged) law-violating nature of a miracle makes it reasonable to weigh the evidence for the laws of nature, evidence that is super strong, against the evidence of any report that the laws were violated -- even if this evidence were super strong too -- and so the rational persuasiveness of miracle testimony is rendered impotent. (The two sides of Hume's scale are either in balance or the law-of-nature side outweighs the miracle report side.) In other words, for Hume the very concept of miracle has logical implications for the world, these implications make a miracle extremely improbable, and so, at least for thinking people, reports of a miracle's occurrence are rendered unbelievable.¹³

of Windsor, 1994), chapters 1-4.

¹¹Hume, *Enquiry*, 110.

¹²Hume, *Enquiry*, 115n, 114. Italics in the first quote is in the original; italics in the second quote is added for emphasis.

¹³This is not the only argument Hume sets out in "Of Miracles," but it is his main *philosophical* argument (which Hume sets out in part 1 of his essay). Hume also sets out (in part 2 of "Of Miracles") four non-

philosophical arguments. (1) Hume's historical argument. Hume argues that as a matter of historical fact no miracle has been attested to sufficiently by high quality witnesses: i.e., history shows that no miracle has been witnessed to by enough highly educated, socially outstanding, patently honest men who have lots to lose by lying and who are situated in circumstances that, if lying, exposure would readily result. (2) Hume's psychological argument. Hume argues that testimony for miracles is weak because of the psychological fact that humankind has a propensity to tell lies about miracles. (3) Hume's sociological argument. Hume argues that, as a matter of sociological fact, miracle reports arise primarily in "ignorant and barbarous nations," and so lies are less readily exposed in such nations. (4) Hume's religious argument. Hume argues that miracles from contrary religions simply cancel each other out. By way of a brief critique of Hume's non-philosophical arguments, it should be noted that in the case of the historical, psychological, and sociological arguments it is clear that they are much too general: Hume needs to do a case-by-case assessment. Surely, *not all* people are equally prone to credulity. Surely, *not all* people are equally prone to exaggeration and lying. Surely, *not all* people are ignorant and barbarous (even though they might come from what Hume takes to be an ignorant and barbarous nation). Surely, *not all* lies are not readily exposable in these so-called ignorant and barbarous nations. In other words, the strength of testimonial evidence varies, and such evidence needs to be evaluated on an individual basis. In the case of Hume's religious argument, i.e., that the miracles from contrary religions allegedly cancel each other out, Hume neglects the following points. The cancelling argument requires that the miracles are *apologetic* miracles; but some miracles may be caused by the true God regardless of the religious tradition in which they occur. Following closely on the heels of this point, the cancelling argument only works if we are clear on the ontologies of the miracles; but some alleged miracles may be due to natural causes whereas some are not. Also, the cancelling argument requires that the apologetic miracle testimonies of contrary religions are equally strong; but perhaps there is only strong evidence for one of the miracles and the rest of the miracle evidence is weak. Moreover, even if we were to grant that the miracle testimonies from contrary religions are equally strong, Hume's argument fails to address the significance of the qualitative differences between miracles. Not all alleged miracles are qualitatively equal. Indeed, some alleged miracles have greater existential and moral significance than others. As Francis Beckwith points out, "if the miracles of religion A and religion B are evidentially equal, and religion A claims to be ordained by the true God because its leader has the ability to instantaneously heal patterned baldness, while religion B appeals to the resurrection of its founder, then religion B has a qualitatively better miracle" (Francis J. Beckwith, "David Hume's Argument Against Miracles: Contemporary Attempts to Rehabilitate It and a Response" [Ph.D. dissertation, Fordham University, 1988], 100). In other words, even if apologetic miracle testimonies of contrary religious systems are equally strong, a miracle's highly significant qualitative dimension counts in the favour of the religious system on behalf of which the miracle is alleged to occur. As it turns out, of the founders of the various major religions (e.g., Confucius, Buddha, Moses, Jesus, Muhammad, Baha'u'llah) only one (i.e., Jesus) is reported to have resurrected *and* has pretty good historical evidence to back up that alleged resurrection. The initially impartial person seems to have pretty good reason, then, to check out the miracle reports concerning Jesus, and so this dissertation, with its emphasis on Jesus, may be of some help to this person. Having said this, however, it should be emphasized (again) that the point of this dissertation is not to defend Christianity as a particular belief system in all its *minutiae*; the point is to set out a case for thinking that miracle reports are more plausible than Hume would have us think (more on this is forthcoming, above). For a closer look at Hume's arguments of Part 2 of "Of Miracles," see Hume, *Enquiry*, 116-131. For a look at some arguments similar and sympathetic to Hume's arguments of Part 2 of "Of Miracles," see Michael Martin, *Atheism: A Philosophical Justification* (Philadelphia: Temple University Press, 1990), 197-198. For further criticisms of these arguments from Hume, see: Francis J. Beckwith, *David Hume's Argument Against Miracles: A Critical Analysis* (Lanham, Maryland: University Press of America, 1989), chapter 3; and van der Breggen, "Hume, Miracle Reports, and Credibility," chapter 5.

Significantly, Hume's argument is not of interest merely to satisfy historical curiosity. The (late) contemporary philosopher J. L. Mackie follows Hume in the argument against miracles. According to Mackie, "[The defender of a miracle] must in effect *concede* to Hume that the antecedent improbability of this event [the miracle] is as high as it could be, [and] hence that, apart from the testimony, we have the strongest possible grounds for believing that the alleged event did not occur."¹⁴ Also, Flew follows Hume in this regard too. For Flew, because a miracle is "naturally impossible," it is "logically incompatible with true laws of nature," and hence maximally improbable.¹⁵

The heart of the Humean argument -- that the extreme improbability of the testified-to miracle, as logically implied by the concept of miracle, counts against the miracle testimony -- has received much cogent criticism, however. For example, it has been argued that Hume and company seriously overestimate the negative evidential weight the laws of nature bear on the credibility of miracle testimony on the grounds that they beg the question in favour of naturalism either with respect to God's existence or with respect to God's intentions concerning His miraculous interventions, given God's existence.¹⁶ Also, it has been argued that

¹⁴J. L. Mackie, *The Miracle of Theism: Arguments for and against the Existence of God* (Oxford & New York: Clarendon Press, 1982), 25. As will be seen in the course of the dissertation, the believer should be anxious to insist that the event is improbable too, but improbable solely on naturalist grounds, so the event can function as a sign by its extraordinariness relative to the regular course of events. As will be argued, the legitimacy of appealing solely to naturalist grounds will come into question.

¹⁵Antony Flew, "Neo-Humean Arguments About the Miraculous," in *In Defense of Miracles: A Comprehensive Case for God's Action in History*, edited by R. Douglas Geivett & Gary R. Habermas (Downers Grove, Illinois: InterVarsity Press, 1997), 51. Flew's essay was commissioned for this 1997 book and constitutes one of his most recent substantive critical works on miracles. See too: Flew's introductory essay to David Hume, *Of Miracles* (La Salle, Illinois: Open Court Classics, 1985), 18-19; and Antony Flew, "Miracle," in *The Encyclopedia of Philosophy*, Volume 5, edited by Paul Edwards (New York & London: Macmillan Publishing Co., Inc., The Free Press, & Collier Macmillan Publishers, 1967), 346-353. See too Flew's contributions to Stan W. Wallace, editor, *Does God Exist? The Craig-Flew Debate* (Burlington, Vermont: Ashgate Publishing Company, 2003).

¹⁶This is the main thrust of J. Houston's *Reported Miracles: A Critique of Hume* (Cambridge: Cambridge University Press, 1994). See too C. S. Lewis, *Miracles: A Preliminary Study* (London: Geoffrey Bles, 1947, 1960; reprint, New York: Simon & Schuster/ Touchstone, 1996), chapter 13. Houston convincingly shows that this question-begging occurs too by those -- e.g., J. L. Mackie, Antony Flew, and others -- who have attempted to rehabilitate Hume's argument. More on this will be examined in chapter 5 of this dissertation. Here,

Hume and company seriously overestimate, solely on inductive grounds, the negative evidential weight the laws of nature bear on the credibility of miracle testimony even if they do not beg the question in favour of naturalism.¹⁷ In addition, it has been argued that the Humean concept of miracle as a violation of a law of nature illegitimately sets up a conflict between belief in a miracle's occurrence and evidence for the laws of nature allegedly violated.¹⁸ The basic idea in this last argument is that a miracle is better understood as an

however, it may be helpful simply to provide the following sketch of the manner in which Hume's argument begs the question. Hume takes the (alleged) violation-of-law-of-nature aspect of miracle to be sufficient for counting the (allegedly) violated laws of nature wholly and destructively against miracle testimony. To be sure, in the case of a resurrection (which is the focus of Hume's argument) such an event *is* maximally improbable, *given the laws of nature and given that there is no intervention from outside the system*. The assumption is made, in other words, that no other background knowledge is needed to make a probability judgment: all that is needed is our knowledge of the relevant laws of nature. But we are supposedly talking about a *miraculous* resurrection, and so, although we are given the laws of nature, we are *not* given that there is no intervention from outside the system. In making this assumption, then, Hume is in effect assuming that either God does not exist (and so God never intervenes via miracles) or, if God does exist, God's intentions concerning nature are shown to us wholly by the laws of nature (and so God never intervenes via miracles). But if, as Hume assumes for the sake of argument, there is good evidence for what seems very much to be a miracle -- Hume even allows it to be a *real* miracle -- then Hume's assumption about the background knowledge is at issue. In other words, in order for Hume's argument to work, it requires the assumption that the laws of nature express either all of the goings-on of a universe without God or, if God exists, all of God's intentions concerning the universe; but the truth of this assumption must be put on hold when a miracle (whether actual or alleged) is supposed to be under investigation. Indeed, for one to be *actually open* to the possibility of the occurrence of an occasional *real* miracle, a possibility Hume allows (at least for the sake of argument), requires that the assumption Hume makes be suspended -- at least when one is purportedly investigating the evidence for a miracle. In other words (again), Hume's argument works only if we assume that there is no God or God-like being who on rare occasions intervenes in nature, but this assumption is at issue when we are considering any alleged evidence for miracles. Thus, by assuming the above-described background knowledge, Hume begs the question which *by hypothesis* only the (alleged) miracle evidence can answer. Again: For further discussion of Hume on this issue, see Houston's *Reported Miracles*, plus chapter 5 of this dissertation. (For a look at another way in which Hume begs the question, see Hendrik van der Breggen, "Hume's Scale: How Hume Counts a Miracle's Improbability Twice," *Philosophia Christi* 4:2 [2002]: 443-453.)

¹⁷See: David Johnson, *Hume, Holism, and Miracles*, Cornell Studies in the Philosophy of Religion, series edited by William P. Alston (Ithaca & London: Cornell University Press, 1999), especially chapter 4; and George I. Mavrodes, "David Hume and the Probability of Miracles," *International Journal for Philosophy of Religion* 43 (1998): 167-182. Further discussion on this matter will occur in chapter 5 of this dissertation.

¹⁸See: Robert A. H. Larmer, *Water into Wine? An Investigation of the Concept of Miracle* (Kingston & Montreal: McGill-Queen's University Press, 1988), chapters 2 & 5; Robert Larmer, "Miracles as Evidence for God," in *God and Argument*, edited by William Sweet (Ottawa: University of Ottawa Press, 1999), 255-256; Robert Larmer, "Miracles, Evidence, and God," *Dialogue* 42 (2003): 109.

intervention by God whereby God introduces a particular configuration of matter/energy into the physical realm without violating any natural laws in so doing, and hence the creation's regular performances do not weigh evidentially against miracle reports.¹⁹

Clearly, considerable critical philosophical work has been done on the heart of Hume's argument against reasonable belief in miracles, and so it might seem (as it does to the authors of the above criticisms and to the author of this dissertation) that Hume's argument can no longer be held in high regard. Nevertheless, John Earman has recently observed that, still, "It is almost universally assumed, by Hume's admirers and critics alike, that 'Of Miracles' offers a powerful and original argument against miracles."²⁰ Earman does not provide names, but they are not hard to find.²¹ The well-known contemporary philosopher Simon Blackburn, for example, writes that "Hume's analysis of testimony from miracles destroys their value as evidence."²² But Blackburn offers no refutation of Hume's critics. Also, and again without refuting Hume's

¹⁹The idea of miracle as God introducing a particular configuration of matter/energy into the physical realm without violating any natural laws in so doing ultimately stems from Augustine and Aquinas. This idea will be discussed in chapter 1 of this dissertation, and its implications for the plausibility of a miracle hypothesis will be discussed in chapter 5. For more on the above-mentioned (and other) criticisms of the Humean argument, see especially the following previously mentioned works: Houston, *Reported Miracles*; Johnson, *Hume, Holism, and Miracles*; and Larmer, *Water Into Wine?*. See too: William Lane Craig, *Reasonable Faith: Christian Truth and Apologetics* (Wheaton, Illinois: Crossway Books, 1994); and Richard Swinburne, *The Concept of Miracle*, New Studies in the Philosophy of Religion, series edited by W. D. Hudson (London & Basingstoke: Macmillan, 1970).

As will be argued in chapter 1 of this dissertation, the idea of a miracle as a *violation* of a law of nature is logically absurd, and where the idea seems not logically absurd, it begs the question in favour of naturalism.

²⁰John Earman, *Hume's Abject Failure: The Argument Against Miracles* (Oxford: Oxford University Press, 2000), vii. Earman goes on to challenge this assumption (further) by the application of the probability calculus developed by Hume's contemporaries Thomas Bayes and Richard Price. Some critical comments on the Bayesian analysis of miracle arguments will be set out in chapter 5 of this dissertation. At this juncture, the project is merely to point out that the heart of Hume's argument is still held in high regard by many.

²¹The names presented (above) are authors of introductory philosophy texts. It will be assumed that because the authors' views are expressed in recently-published introductory texts whose publishers are quite prestigious, these views are widely held in the contemporary philosophical community.

²²Simon Blackburn, *Think: A Compelling Introduction to Philosophy* (Oxford: Oxford University Press, 1999), 185.

critics, the well-known contemporary philosopher A. C. Grayling wholly affirms Hume's argument. According to Grayling, within the concept of miracle "lies its weakness," and Grayling then argues: "[A]s David Hume pointed out, when one weighs the evidence supporting the regular functioning of natural laws with evidence supporting claims that there has been a singular violation of them, the former must always so far outweigh the latter as to render them nugatory."²³ Enlisting the authority of contemporary science to defend Hume, philosophers Chris Horner and Emrys Westacott write: "Hume expressed the attitude of science well when he argued that it is always more reasonable to assume that the report of the miracle is mistaken than to believe that the laws of nature momentarily ceased to operate."²⁴ In addition, Nigel Warburton approvingly and uncritically reports Hume's arguments against believing miracle reports and describes them as "powerful arguments."²⁵ Because of Earman's apparently accurate observation, and because of the many good (albeit apparently unnoticed) criticisms already launched directly against Hume's argument, this dissertation's approach to criticizing Hume's argument will attempt to take a somewhat different tack (rather than simply restating or refining the previously made criticisms). At the risk of seeming unfair to Hume, but taking seriously Hume and company's apparent judgment that the Humean argument is an *everlasting* check on miracle reports -- or at least is a *present day* check on miracle reports -- this dissertation will transfer the heart of the Humean argument *into the present* and it will make a case for thinking that, today, the Humean argument *backfires*. The proposal in this dissertation is to do the following: (1) to take a close conceptual look at the "very nature" of the miraculous object of a miracle testimony, a "very nature" paradigmatically given

²³A. C. Grayling, *The Meaning of Things: Applying Philosophy to Life* (London: Weidenfeld & Nicolson, 2001), 126.

²⁴Chris Horner & Emrys Westacott, *Thinking Through Philosophy: An Introduction* (Cambridge: Cambridge University Press, 2000), 239.

²⁵Nigel Warburton, *Philosophy: The Basics*, 2nd edition (London: Routledge, 1995), 28.

to us in the reports of Jesus' (allegedly) miraculous resurrection and virgin birth²⁶; and (2) to look at the logical implications arising from this conceptual analysis in the context of what science tells us is reasonable to believe about the world at the beginning of the 21st century, and in the context of what some moral philosophizing allows us to reasonably believe as well (the reason for appealing to the moral context will become clearer a bit later in this introduction). The result, it will be contended, is that, *pace* Hume *et al.*, the concept of miracle contains the seeds not for *weakening* the credibility of a miracle testimony but for *strengthening* it. The thesis of this dissertation, then, can be stated as follows: On the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications -- when examined in the context of some implied/ predicted findings from contemporary science plus some implied/ predicted discernments from moral philosophy -- serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity or power to make sense of some facts which suggest such an operation.²⁷

The overall defence of this thesis will involve the following: A case will be made for thinking that the concept of miracle which is adequate to capturing the allegedly miraculous nature of the virgin birth and the resurrection of Jesus in effect points to certain aspects of the world which, as it turns out, can be discerned by contemporary science and moral philosophy; then, taking a cue from the fact that a scientific theory gains scientific respectability when its predictions/implications are confirmed/satisfied, it will be argued that the fact that these pointed-to/implied aspects of the world have been uncovered serves to add plausibility to a hypothesis which employs miracle.

²⁶Christian miracles, especially Jesus' resurrection, were the focus of Hume's argument, so this focus will be continued here.

²⁷The word "predict" and its cognates will be used to include predicting about the past (a.k.a. postdiction, retrodiction).

It should be emphasized that the project of this dissertation is quite a modest one. The project is basically to show how to make a reasonable argument for miracles, in a specific and determinate sense, while given certain background assumptions which have been defended elsewhere, and which are not strictly part of the dissertation. It is philosophically legitimate to make assumptions in an argument -- especially if some good philosophical, historical, or scientific work has been already done to defend those assumptions -- to see what further reasoning one can do given those assumptions, all the while realizing that the further reasoning would collapse or be seriously weakened if those assumptions collapse or are seriously weakened. In this dissertation, then, several assumptions will be made -- and these assumptions will be explicitly acknowledged here. (1) It will be assumed that the notions of an immaterial realm as well as an immaterial intelligent causal agent, such as God or a God-like being, are logically coherent.²⁸ (2) It will be assumed that there is no logical inconsistency in holding the traditional attributes of the theistic God (that God is all-good, all-knowing, and all-powerful) in the face of evil's existence, and that evil's existence does not make the existence of the God of Christian theism improbable.²⁹ (3) It will be assumed that the concept of Incarnation

²⁸For a defence of this assumption, see: Richard Swinburne, *The Coherence of Theism* (Oxford: Clarendon Press, 1977); Charles Taliaferro, *Contemporary Philosophy of Religion*, Contemporary Philosophy series (Oxford: Blackwell, 1998), chapters 3-6; Charles Taliaferro, "The Possibility of God: The Coherence of Theism," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 239-258; Ronald H. Nash, *The Concept of God: An Exploration of Contemporary Difficulties with the Attributes of God* (Grand Rapids, Michigan: Academie/ Zondervan, 1983); Stephen T. Davis, "God's Actions," in *In Defense of Miracles: A Comprehensive Case for God's Action in History*, edited by R. Douglas Geivett & Gary R. Habermas (Downers Grove, Illinois: InterVarsity Press, 1997), 163-177.

²⁹For a defence of these assumptions, see: William Alston, "Some (Temporarily) Final Thoughts on Evidential Arguments from Evil," in *The Evidential Problem of Evil*, edited by Daniel Howard-Snyder, The Indiana Series in the Philosophy of Religion, edited by Merold Westphal (Bloomington & Indianapolis: Indiana University Press, 1996), 311-332; Gregory Boyd, *Is God to Blame? Beyond Pat Answers to the Problem of Suffering* (Downers Grove, Illinois: InterVarsity Press, 2003); William Lane Craig, *Hard Questions, Real Answers* (Wheaton, Illinois: Crossway, 2003), chapters 4 & 5; Gregory E. Ganssle, "God and Evil," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 259-277; Michael Peterson, *God and Evil: An Introduction to the Issues* (Boulder, Colorado: Westview Press, 1998); Alvin Plantinga, *God, Freedom, and Evil* (Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1977); John G. Stackhouse, Jr., *Can God Be Trusted? Faith and the Challenge of Evil* (New York & Oxford: Oxford University Press, 1998); Taliaferro, *Contemporary Philosophy of Religion*, chapter 9.

It perhaps should be pointed out here that the *reality* of evil is not only a problem for Christian theism.

is logically coherent.³⁰ (4) It will be assumed that the concept of divine forgiveness is logically

If evil *really* exists (as it sure seems to), then that would seem also to be a problem for the naturalist who holds that reality is ultimately only matter/energy. Why? Because then, say, Auschwitz or the destruction of the World Trade Towers would be evil in only some weaker sense, as, say, a mere cultural difference, or a mere breaking of an agreement, or an impediment to evolution, etc. But such accountings of evil seem not to fit with the moral convictions that we have. More on this in chapter 2.

For an important discussion of the specific objection that the New Testament miracles show that the Christian God, conceived as all-good and all-knowing and all-powerful, cannot exist, because such miracles show Him to be, "at best, arbitrary, capricious, fallible, and somewhat ignorant" (Christine Overall, "Miracles and Larmer," *Dialogue* 42 [2003]: 133), see: Larmer, *Water Into Wine?*, 76-82; Robert Larmer, "Miracles and the Existence of God: A Reply," in *Questions of Miracle*, edited by Robert A. Larmer (Montreal & Kingston: McGill-Queen's University Press, 1996), 140-145; Larmer, "Miracles, Evidence, and God," 107-122; Christine Overall, "Miracles as Evidence Against the Existence of God," *The Southern Journal of Philosophy* 23 (1985): 347-353; Christine Overall, "Miracles and God: A Reply to Robert A. H. Larmer," *Dialogue* 36 (1997): 741-752; Overall, "Miracles and Larmer," 123-135. Although Overall's objection will not be discussed in this dissertation, it will be pointed out that it seems to this dissertation's author that the miracles of central interest in this dissertation do not seem to fall prey to Overall's charges. The miraculous resurrection and virgin birth of Jesus seem much more clearly (according to biblical Christian theology) the product of a carefully laid out salvation plan than, say, Jesus' spur-of-the-moment and apparently frivolous turning water into wine at a wedding reception. A much more thorough defence of this view will have to wait for some other time and place.

It should also be noted here that against the objection from evil's existence or the objection from the apparent arbitrariness of a miracle's performance (or withholding), any defence (e.g., Alston's) which appeals to humanity's epistemic limitations compared to God's superior knowledge and power and goodness need not preclude the human mind's competency to judge that the general evidence of the universe is of some purposeful sort (a judgment that will be made in chapter 4 of this dissertation). Incompetency to discern a specific purpose or purpose for a detail does not preclude the competency to discern a general purpose for the larger picture or system. For example, consider the case of a parent and child. A parent provides his/her child with general provisions for the conditions of life: food (three square meals a day), shelter (a warm bedroom), and protection from danger (keeping the neighbour's barking dog outside of the yard); and the child can quite easily discern these generally benevolent activities of the parent as purposeful. However, sometimes a parent provides his/her child with a special gift (candy for some strange costumed celebration such as Halloween) or withholds this gift (no candy before a meal or bed) or even inflicts pain (via the dentist to fill a cavity); and the child may not understand the purpose for these specific acts -- at least not right away. Nevertheless, and importantly, the fact remains that the child can understand the general purpose of his/her larger world even though not the specific purpose of some of the particular events occurring in it. (Indeed, in this case it is the discernable general purpose that makes the specific purpose difficult for the child to discern.)

It should also be noted here that sometimes dealing with a problem in a particular order is an aid to solving that problem. In a 3-D puzzle, it is very helpful to have bottom pieces in place first, before erecting the upper structure, and it is a mistake to dismiss the puzzle's workability or solubility because the top (later) pieces do not fit at the very bottom. It is the view of this dissertation's author that the problem of evil consists of puzzle pieces that should be addressed later, after some *other* puzzle pieces are in place. So, in the context of this dissertation, it will be taken as useful to *begin* with discernable general purpose (as will occur later in chapter 4 of this dissertation) and *then* deal with tough-to-discern particular purposes (investigations of the latter have occurred in the above-mentioned literature and perhaps will occur in some future philosophical essay/book by this dissertation's author).

coherent.³¹ (5) It will be assumed that the concept of a miraculous resurrection is logically coherent.³² (6) It will be assumed that certain aspects of the New Testament documents, aspects which have to do with Jesus' alleged resurrection, are historically reliable.³³ (7) It will be assumed that the following findings of

³⁰For some defences of the logical coherence of the concept of Incarnation, see: C. Stephen Evans, "Is the Incarnation Logically Possible?", in *The Historical Christ & The Jesus of Faith* (Oxford & New York: Clarendon Press, 1996), 116-136; J. P. Moreland & William L. Craig, "Christian Doctrine II: The Incarnation," in *Philosophical Foundations for a Christian Worldview* (Downers Grove, Illinois: InterVarsity Press, 2003), 597-614; Thomas V. Morris, *The Logic of God Incarnate* (Ithaca, New York: Cornell University Press, 1986); Thomas D. Senior, "The Incarnation and the Trinity," in *Reason for the Hope Within*, edited by Michael J. Murray (Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1999), 238-260; Richard Swinburne, "The Possibility of Incarnation," in *The Christian God* (Oxford: Oxford University Press, 1994), 192-215. For some criticisms of the concept of the Incarnation, see: Michael Martin, *The Case Against Christianity* (Philadelphia: Temple University Press, 1991), chapter 5.

³¹On divine forgiveness, see: Haddon Willmer, "Forgiveness," in *The Oxford Companion to Christian Thought*, edited by Adrian Hastings (Oxford & New York: Oxford University Press, 2000), 245-247.

³²See: Peter van Inwagen, *The Possibility of Resurrection* (Boulder, Colorado: Westview Press, 1998).

³³For a defence of various historical aspects of the New Testament's witness to the resurrection of Jesus, see, for example, Swinburne's recently-published *The Resurrection of God Incarnate*; see too N. T. Wright's recently-published *The Resurrection of the Son of God*, Christian Origins and the Question of God series, Volume 3 (Minneapolis: Fortress Press, 2003). For a very helpful summary of some generally-accepted historical evidence for the occurrence of Jesus' resurrection, see: G. R. Habermas, *The Historical Jesus: Ancient Evidence for the Life of Christ* (Joplin, Missouri: College Press Publishing Company, 1996), 158; and Habermas & Flew, *Did Jesus Rise From the Dead?*, 19-20. Reporting on contemporary New Testament scholarship, Habermas points out that "There are a minimum number of facts agreed upon by practically all critical scholars, whatever their school of thought. At least *twelve* separate facts are considered to be knowable history." (Habermas, *The Historical Jesus*, 158.) Three of these facts "are even more widely accepted as knowable history than the rest of the twelve": (1) the fact of Jesus' actual death; (2) the fact of reports of various witnesses who believe they saw, touched, and talked with the risen Jesus shortly after Jesus' death; and (3) the fact of the transformation of these witnesses to bold proclaimers of Jesus' resurrection in the face of social ostracism, physical hardship, and death. (Habermas, *The Historical Jesus*, 162-163.) Habermas examines various non-resurrection explanations of these facts -- e.g., resuscitation/ swoon theory, hallucination theory, conspiracy theory, legend, etc. -- and finds them wanting in comparison to the resurrection explanation. (Habermas also responds to criticisms of his work, e.g., Martin's *The Case Against Christianity*, and finds them wanting too.) In the view of this dissertation's author, Habermas's findings seem to be significant. What also seems to be significant is that if the resurrection explanation is found not implausible in the light of contemporary science and moral philosophy, then Habermas's findings make the resurrection *even more attractive* as an explanation of the above facts. More on this topic will be set out in chapter 5 of this dissertation.

This dissertation will not attempt to determine how much evidence is needed to believe reasonably that a miracle has occurred. For a look at some philosophical discussion related to issues of this sort, see: Steve Clarke, "When to Believe in Miracles," *American Philosophical Quarterly* 34:1 (January 1997): 95-102;

contemporary science have been established by the scientific community: that the Big Bang occurred, that the Big Bang singularity shows that the universe originated a finite time ago out of nothing physical, that the conditions of the universe's beginning were "fine-tuned" for subsequent life, that the living cell is constituted by complex biochemical molecular machines, and that the cell's DNA is constituted by a language/code.³⁴ Along with keeping these assumptions in mind, it should also be kept in mind that although it will be argued that science seems very much to point to the existence of some sort of God-like being -- i.e., a very powerful, transcendent, and seemingly intelligent causal source of matter/energy -- this dissertation will not attempt to *prove* that the theistic God, as traditionally understood, exists. Although in the light of these scientific factors an argument can be made for the existence of God, this dissertation is not directed to this precise proposal. Moreover, this dissertation will not attempt to establish its thesis *conclusively*, beyond a shadow of doubt. Rather, this dissertation will merely make a *reasonable case* (see next footnote for clarification of "reasonable") for thinking that several important findings of contemporary science when viewed in the light of some important findings from moral philosophy -- when both findings are pointed to by the unpacking of the miracle concept in a miracle hypothesis -- serve to strengthen the plausibility of that hypothesis.³⁵

Phillip Wiebe, "Authenticating Biblical Reports of Miracles," *Journal of Philosophical Research* 18 (1993): 309-325; and Robert A. Larmer, "Miracles and Testimony: A Reply to Wiebe," in *Questions of Miracle*, edited by Robert A. Larmer (Montreal & Kingston: McGill-Queen's University Press, 1996), 121-131. (Wiebe's article is reprinted in Larmer, *Questions of Miracles*, 101-120.)

³⁴In other words, the contemporary reigning scientific explanation for the beginning of the universe, i.e., the Big Bang model, will be taken as established by the scientific community. The competing cosmological models -- i.e., the Steady State and other models -- seem very much not to have won the day (more will be said about this later in the dissertation). Also, the "fine-tuning" of the universe's beginning, the "machinery" of the cell, and the "language/code" of DNA will be taken as established by the scientific community. It is quickly added that to call something "established by the scientific community" is to admit corrigibility and tentativeness concerning that something, especially since scientific consensus can change quickly and drastically as a result of new discoveries. These words of caution will be kept clearly in mind as the dissertation progresses. (To provide some support for these assumptions from science, two brief appeals to scientific authority plus two lists of references concerning the above scientific findings will be presented in chapters 3 and 4.)

³⁵In this dissertation an attempt will be made to make the thesis claim a *reasonable* or *rationaly-warranted belief*, which Adam Morton describes as "a belief acquired by sensible and clear thinking, which considers

In addition, it should be pointed out that the main thrust of the originality of this dissertation lies not with the concept of miracle that is set out; only some limited features of this miracle concept are original in this dissertation, especially the nature of the connection to objective moral value. Rather, the main thrust of the originality of this dissertation lies with: (1) the *emphasis* placed on certain aspects of the concept of miracle; (2) the use of these emphasized aspects, i.e., the use of their logical implications, *as pointers* to specific clues in the world; and (3) the use of the subsequent finding of these logically implied clues via a combination of moral philosophy and contemporary science *as a feature of* a particular miracle hypothesis which counts in favour of its plausibility. The chapter overviews that follow will make these three points more clear.

II. Chapter Overviews

A. Chapter One

In chapter 1, the particular concept of miracle which would be adequate to encompass what is

possible objections and counter-evidence" (Adam Morton, *A Guide through the Theory of Knowledge*, 3rd edition [Oxford: Blackwell Publishers, Ltd., 2003], 182). Although an attempt will be made to set out a preponderance of reasons in favour of this dissertation's thesis over reasons against it, no attempt will be made to judge that the thesis is *rationally obligatory* to hold. Rather, this dissertation's understanding of *reasonable* or *rationally-warranted* belief will be, modestly, *belief that is not irrational to hold*. In other words, i.e., Robert O'Connor's words (slightly altered for my purpose; O'Connor is talking about new design arguments based on contemporary science), the sort of judgment that is sought for this dissertation's thesis is such that "inferring [the thesis] . . . constitute[s] an intelligent choice, that is, a rationally warranted, philosophically viable interpretation of certain remarkable empirical [and moral] phenomena" (Robert O'Connor, "The Design Inference: Old Wine in New Wineskins," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson [London & New York: Routledge, 2003], 83). To put the matter another way, the sort of knowledge this dissertation seeks is not 100% certain knowledge of propositions that are universal and eternal truths; rather, this dissertation seeks knowledge of the novel and historically exceptional, knowledge that is considerably less than 100% certain and easily falls prey to, or may be strengthened by, changes in relevant data. For further discussion of this view vis-à-vis the relationship between reason and faith, see Michael Peterson, William Hasker, Bruce Reichenbach & David Basinger, *Reason & Religious Belief*, 3rd edition (Oxford & New York: Oxford University Press, 2003), chapter 3, especially pages 49-53. Peterson *et al.* call the view that is held in this dissertation *critical rationalism*.

traditionally and paradigmatically recognized as such (i.e., Jesus' virgin birth and Jesus' resurrection) will be clarified and defended, and certain aspects of this concept will be emphasized. As mentioned above, these aspects will serve as pointers to clues in the world as discerned by contemporary science and moral philosophy, clues which will be investigated in subsequent chapters.³⁶

The concept of miracle that is of central interest in this dissertation, and which will be set out in chapter 1, consists of the following conditions (which are for the purpose of this dissertation individually necessary and jointly sufficient for an event to be a miracle): (1) the event in question is an event that is extraordinary or unusual with respect to the regular course of nature in the sense that the event's occurrence is beyond nature's capacity to produce; (2) it is an event that consists of an introduction or coming into being of complex specifically structured matter/energy; (3) it is directly caused by a very powerful, intelligent, and nature-transcending causal source of matter/energy, i.e., God or a God-like being; and (4) it is religiously significant. (This definition of miracle will be known in the dissertation as *miracle sense 6*. The conditions of miracle sense 6 will be made more clear as the dissertation progresses.)

This definition of miracle will be discerned after the following examinations occur: an examination of some subjective and objective senses of "miracle," an examination that includes a look at some alleged miracles from the biblical narrative; an examination of four major historical thinkers on miracles (Augustine of Hippo, Thomas Aquinas, John Locke, and David Hume); and an examination of four major 20th-century thinkers on miracles (Francis Beckwith, Robert Larmer, C. S. Lewis, and Richard Swinburne).

Each of the conditions of miracle sense 6 will be examined closely, to defend against logical absurdities (including the absurdity that a miracle violates a law of nature), and to look at some logical implications for the world.

³⁶In this dissertation the notion of "clue" will be understood as evidence (a fact, object, or event) that helps to solve a problem, which in this case is whether or not the plausibility of a miracle hypothesis is enhanced by that evidence. It will be argued that the clues do enhance the plausibility of a miracle hypothesis.

B. Chapter Two

To set up the motivation for chapter 2, in chapter 1 it will be conceded that setting out the specifics of condition 4 -- the religious significance of a miracle -- is probably best left to theologians, religious studies scholars, and evangelists³⁷; yet it will also be argued that an important part of the religious significance of the miracles of concern in this dissertation consists of a philosophical, *moral* dimension: namely, the thesis that intelligent human beings have objective moral value (i.e., intrinsic worth). It will be argued that a logical implication of the miracles of central interest in this dissertation is that they purportedly serve to *communicate* or *confirm* the alleged objective moral value of intelligent human beings. According to Christian theology, especially with respect to Jesus' alleged virgin birth and resurrection, part of the religious significance of these miracles is that God, in doing these miracles, is supposedly confirming that people have objective moral value. Keeping Plato's insights from the *Euthyphro* clearly in mind, it will be asked: Is it reasonable to believe that intelligent human beings have objective moral value? If it turns out that it is reasonable to believe that intelligent human beings do have objective moral value, then that counts in favour of the miracle hypothesis's plausibility in the sense that the moral value prediction is confirmed, and so the fit of the miracle hypothesis is enhanced, at least a wee bit. Moreover, if a miracle hypothesis is used to explain some facts and this implication/prediction is satisfied/confirmed, then that also counts in favour of a miracle hypothesis in the

³⁷Of course, the proposition that God or a God-like being is the cause of the miraculous event has religious significance and so should be dealt with by philosophers. This proposition will be dealt with in the discussion of miracle condition 3 (that the miracle event is directly caused by a very powerful, intelligent, and nature-transcending causal source of matter/energy, i.e., God or a God-like being). There are other aspects of a miracle's religious significance that are certainly appropriate topics for philosophers to investigate, too: e.g., the concept of God's forgiveness, the concept of God Incarnate, the concept of resurrection, etc. For further discussion of these, see: Willmer, "Forgiveness"; Morris, *The Logic of God Incarnate*; Jerry L. Walls, *Hell: The Logic of Damnation*, Library of Religious Philosophy, Volume 9 (Notre Dame & London: University of Notre Dame Press, 1992); van Inwagen, *The Possibility of Resurrection*. As noted earlier, for the purpose of this dissertation these concepts will be assumed to be logically coherent. As was noted earlier too, it is the view of this dissertation's author that it is legitimate to set out the assumptions one is making in an argument (especially if some good philosophical work has been already done to defend those assumptions) to see what further reasoning one can do given those assumptions, all the while realizing that the further reasoning would collapse, or be seriously weakened, if those assumptions collapse.

following important way: this moral clue will very helpfully boost the significance of the miracle-plausibility-enhancing clues in the world as discerned by contemporary science. As will be argued in chapter 4, the objective moral value of humans can be employed in the latter part of the following two-part scenario: (1) there is the phenomenon of the intricately configured contingencies of the universe's initial conditions (a.k.a. the "fine-tuning" of the universe's initial conditions) and then (2) there is the phenomenon of the subsequent instantiation (not necessarily perfectly) of objective moral value (via the evolution/creation of intelligent human beings). In other words, the instantiation of intelligent human beings -- i.e., the instantiation of that which has objective moral value -- serves to provide what very much appears to be an end or goal for the "fine-tuning" of the universe's initial conditions, and this initial-fine-tuning-ending-up-with-what-has-objective-moral-value is something that will be taken to be a combination which smacks of deep mind affinity. (Claims to the contrary will also be argued against, to buttress this thesis.) A similar argument will be made in the cases of the living cell's molecular machinery and the language/code of its DNA vis-à-vis the instantiation of intelligent human beings, i.e., bearers of objective moral value. The project in chapter 2, then, will be to defend the thesis that it is reasonable to believe that intelligent human beings have objective moral value.

This defence will consist of making a case for thinking that Moral Relativism, which the dissertation's author takes to be (in a broad sense) the biggest contemporary challenge to this chapter's thesis, is a failure and that what will be called Minimal Intuitionism is not. It will be argued that Moral Relativism's failure results not merely from logical and factual problems (though these problems are very serious) but also -- and profoundly -- from its inability to account for at least one fundamental pre-theoretic moral intuition, the intuition that intelligent human beings have objective moral value. It will be argued too that the aforementioned intuition also serves as an important pre-theoretic check or foundational assumption on each of the following major ethical theories: Utilitarianism, Contractarianism, Survivalist/ Evolutionary ethics, Kantian ethics, the Golden Rule, Natural Law theory, and Rossian Intuitionism; an excursus on a

contemporary Human Rights theory -- Vital Interests Human Rights theory -- will occur as well. In addition, various objections concerning intuitionist ethics will be considered.

Even though the defence of the thesis that intelligent human beings have objective moral value will probably not persuade all readers of this dissertation, it nevertheless is a thesis that can be given a reasonable defence and so can be reasonably held by thoughtful, intelligent (critical) people. In other words, the purpose of this chapter is to make space for Minimal Intuitionism on the table of reasonable-to-hold ethical options.

C. Chapter Three

The motivation for chapter 3 will also be set up by the work done in chapter 1. Chapter 1's investigation of conditions 1, 2 and 3 of the concept of miracle (that a miracle is an extraordinary or unusual event with respect to the regular course of nature in the sense that the event's occurrence is beyond nature's capacity to produce, that a miracle is an event which consists of a coming into being of specifically structured matter/energy, and that a miracle is directly produced by a very powerful, intelligent, nature-transcending causal source of matter/energy) also raises the following questions: Does the world provide indications for thinking that a physical creation can come into being, caused, out of the non-physical realm? Does the world provide indications for thinking that there exists a very powerful being which/who transcends nature and can have such a causal efficacy? In chapter 3 the answer will be Yes to both of these questions. To defend these affirmations, it will first be simply asserted/assumed that contemporary science gives us the evidence that something physical has come out of the realm of the non-physical. That is to say, an appeal will be made to the contemporary reigning scientific explanation for the beginning of the universe -- the Big Bang -- which makes it reasonable to believe that the physical universe (space, time, matter, and energy) began to exist.³⁸ Second, it will be argued at length in chapter 3 that this evidence also provides reasonable grounds for thinking

³⁸Strictly speaking, the scientific findings in favour of the Big Bang will not merely be assumed to be the case; a brief, non-fallacious appeal to scientific authority will be made as well.

that there is in fact a cause of the universe which/who is very powerful and transcendent. A defence will be made of the causal principle that whatever begins to exist has a cause for its existence. This defence will involve an appeal to as well as develop some work from William Lane Craig and Thomas Nagel. Also, some important objections will be considered.

D. Chapter Four

Chapter 1's investigation of the first three conditions of the concept of miracle leads as well to the asking of these questions: Does the world give us evidence of a very powerful, nature-transcending cause that can structure physical reality in ways which display signs of intelligence? That is, does the world provide clues for thinking that the cause discerned in chapter 3 is an *intelligent* cause? These questions are reasonable to ask in the context of this dissertation, because, after all, for a powerful and transcendent cause miraculously to bring back the dead body of Jesus in a "glorious resurrected body" (i.e., a live human body with some new and extraordinary powers) or miraculously to produce a Y-chromosome *de novo* in Mary's ovum or a fertilized egg *de novo* in Mary's womb seems to require not only that matter/energy be created but also that this matter/energy be configured and directed in a highly specific and complex way -- a way which very much seems to require intelligence. In chapter 4, then, the answer Yes will be given to the above questions. To defend the Yes answers, an appeal will be made to some recently-discovered scientific clues which will be assumed to be the case and which seem to provide traces of intelligence in the universe.³⁹ These clues are: (1) the apparent "fine-tuning" at the beginning of the universe; (2) the complex biochemical molecular machines that constitute the living cell; and (3) the language/code in DNA. With the above clues taken together with chapter 2's argument for the objective moral worth of intelligent human beings plus chapter 3's argument for a very powerful and transcendent cause of the universe, in chapter 4 a cumulative case argument

³⁹As in the case of the Big Bang, these findings will, strictly speaking, not be merely assumed to be the case; a brief, non-fallacious appeal to scientific authority will be made as well.

will be set out for reasonable belief that a very powerful, transcendent, and *intelligent* causal source of matter/energy exists.

Chapter 4 will begin, appropriately, with a clarification of the idea of intelligent design. With the help of some work from intelligent design theorists William Dembski and Del Ratzsch, the idea of intelligent design and its discernment will be discussed and refined. Also, the scope of application of explanations which appeal to intelligent causes will be expanded beyond the realm of human agency. It will be argued that, *given the assumptions of this dissertation*, there is no principled way to keep an appeal to a God-like being -- i.e., a very powerful, transcendent and intelligent cause -- out of the pool of reasonable explanatory possibilities.

Some evidence from contemporary science for the "fine-tuning" of the universe will be briefly examined, as will some evidence from contemporary science for the cell's molecular machines and the language/code of DNA. A case for deep mind affinity will be made as an explanation for each line of evidence, without appealing to probability arguments (i.e., some criticisms from Neil Manson will be taken to heart here). For each case, objections will be considered, and alternative explanations will be examined.

E. Chapter Five

In the fifth and final chapter, it will be argued that the findings of the previous chapters -- that the universe's coming into being in a highly complex and specifically structured way, displaying marks of intelligence, and very apparently caused by a very powerful and intelligent matter/energy source which exists beyond the universe -- seem very much to constitute an instance of the concept of miracle "writ large." With this aim in mind, the notion of plausibility will be clarified (an appeal to some work from Paul Thagard on good explanations will be made). Also, the idea of the universe as a large-scale miracle will be defended in terms of chapter 1's concept of miracle sense 6 (e.g., the objection that the universe lacks the required background foil to fulfil the extraordinariness vis-à-vis regular course of nature criterion will be considered). In addition, it will be argued that the actuality of this very apparent large-scale miracle which is logically

implied/predicted by the concept of miracle enhances the plausibility of the occurrence of a small-scale miracle, given specific historical testimony/evidence which smacks of the miraculous and which is well handled by a miracle hypothesis. As a test case, some generally agreed upon evidence for Jesus' alleged resurrection will be used (i.e., an appeal will be made to three of the historical facts set out in Habermas's *The Historical Jesus*, as outlined in footnote #33 of this introduction). Some objections from Ernst Troeltsch, Flew, and others will be considered.

F. Summary Overview

In a nutshell, this dissertation takes the uncontroversial insight that the satisfaction/confirming of a hypothesis's implications/predictions counts in favour of that hypothesis's plausibility and (given some assumptions that are not strictly part of this dissertation yet are defended elsewhere) applies the insight to a hypothesis which employs the concept of miracle. The concept of miracle, when understood in terms of the miracles that are of central interest in this dissertation, has logical implications/predictions for the world. The discernment of these logical implications/predictions occurs in chapter 1. In chapter 1 we see that the concept of miracle logically implies that intelligent human beings have objective moral value. In chapter 2 a case is made for thinking that intelligent human beings have objective moral value. In chapter 1 we see too that the concept of miracle logically implies/predicts that matter/energy can come into being from out of the non-physical realm. This implication/prediction is satisfied/confirmed in the Big Bang, as explicitly assumed in chapter 3. (The Big Bang gives us evidence that something physical can come from the non-physical.) Also in chapter 1 we see that the concept of miracle logically implies/predicts that there is a very powerful, physically transcendent causal source of matter/energy. It is argued in chapter 3 that this implication/prediction is satisfied/ confirmed because the Big Bang evidence provides grounds for making it reasonable to believe the following: that the matter/energy which constitutes the universe has a cause, that this cause is very powerful, and that this cause is physically transcendent. In chapter 1 we see as well that the

concept of miracle logically implies/predicts that the aforementioned very powerful, physically transcendent causal source of matter/energy is intelligent. In chapter 4, when the results of chapter 3 are coupled with the evidence of the universe's fine-tuning, the cell's molecular machines, and DNA's language/code plus chapter 2's thesis that intelligent human life has objective moral value, it is argued that this last implication/prediction of the miracle concept is satisfied/ confirmed. In addition to the satisfactions/confirmations of the aforementioned implications/predictions, it is argued in chapter 5 that the *universe's coming into being* satisfies the conditions of the miracle concept, so a miracle hypothesis that is used to explain some particular historical facts gains *additional* plausibility enhancement because it is in important respects phenomenologically and explanatorily analogous to the universe as a miracle "writ large."

Therefore, the thesis of this dissertation will be defended: On the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications -- when examined in the context of some implied/ predicted findings from contemporary science plus some implied/ predicted discernments from moral philosophy -- serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity.

The criticism from Hume, articulated within a very different cosmological and epistemological framework, thus loses much of its cogency.⁴⁰

⁴⁰At this juncture, a reader might wonder how much of the dissertation is "just postulate" and how much is genuine argument from generally accepted premises. Here, again, is a list of assumptions that this dissertation makes and explicitly acknowledges as reasonable-to-hold assumptions: (1) That the notions of an immaterial realm as well as an immaterial intelligent causal agent, such as God or a God-like being, are logically coherent; (2) that there is no logical inconsistency in holding the traditional attributes of the theistic God (that God is all-good, all-knowing, and all-powerful) in the face of the existence of evil, and that evil's existence does not make the existence of the God of Christian theism improbable; (3) that the concept of Incarnation is logically coherent; (4) that the concept of divine forgiveness is logically coherent; (5) that the concept of miraculous resurrection is logically coherent; (6) that Habermas's three historical (physical) facts surrounding Jesus' alleged miraculous resurrection are generally accepted as historically reliable by New Testament scholars (whether Christian believers or not); (7) that certain findings of contemporary science --

that the Big Bang occurred, that the Big Bang singularity shows that the universe originated a finite time ago out of nothing physical, that the conditions of the universe's beginning were "fine-tuned" for subsequent life, that the living cell is constituted by complex biochemical molecular machines, and that the cell's DNA is constituted by a language/code -- have been established by the scientific community.

Assumptions 1-5 are probably not *universally* accepted in the scholarly community, but it is reasonable to believe that they are *widely* accepted. Indeed, it is reasonable to think that the membership of the Society of Christian Philosophers is one of the largest sub-groups, if not *the* largest sub-group, of the American Philosophical Association, and it seems reasonable to think that these philosophers would accept assumptions 1-5. Also, there is much philosophical literature defending the reasonableness of these assumptions, as my references indicate. Also, some additional support (at least for assumptions 1 and 2) comes from a relatively recent survey of the American scientific community which indicates that "about 40 per cent of scientists still believe in a personal God and an afterlife" (Edward J. Larson & Larry Witham, "Scientists are still keeping the faith," *Nature* 386 [3 April 1997]: 435).

Assumptions 6-7 can be reasonably understood as *generally* accepted premises. In defence of the history assumptions, see the references listed in this introduction and in chapter 5; in defence of the science assumptions, see the list of references in chapter 3 and in chapter 4.

The dissertation, then, consists of genuine argument from the above generally-accepted assumptions used as premises, given the less-accepted yet widely-held assumptions used as postulates for the sake of argument.

The following point (presented previously) may be worth repeating here: It is philosophically legitimate to make assumptions in an argument (especially if some good philosophical and scientific and historical work has been already done to defend those assumptions) to see what further reasoning one can do given those assumptions, all the while realizing that the further reasoning would collapse or be seriously weakened if those assumptions collapse or are seriously weakened. So, if a critic (a philosopher or historian or scientist) disagrees with some or many or all of the assumptions that this dissertation makes -- even if he/she has good grounds for doing so -- the existence of such disagreement does not impinge upon the philosophical legitimacy of the dissertation's project. Indeed, this dissertation's bracketing of objections to the above assumptions leads to the discovery of some interesting philosophical insights.

Chapter 1

MIRACLE

A reformulation of the concept, and a look for pointers to clues

I. Introductory Remarks

As mentioned in the introduction, the thesis of this dissertation is the following: On the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications -- when examined in the context of some implied/ predicted findings from contemporary science plus some implied/ predicted discernments from moral philosophy -- serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity or power to make sense of some facts which suggest such an operation.¹ It is important, therefore, to get clear on the concept of miracle right at the start.

The aim of this chapter is to achieve this clarity. First, two contemporary subjective senses plus various objective senses of "miracle" will be examined (of the latter, one is a contemporary scientific sense

¹As pointed out in the introduction to the dissertation, the word "predict" will be used to include predicting about the past (a.k.a. postdiction, retrodiction).

and the rest are traditional/biblical senses).² Second, several philosophical conceptions of miracle will be examined. These conceptions come from four important pre-20th-century thinkers on miracles -- Augustine of Hippo, Thomas Aquinas, John Locke, David Hume -- plus four important 20th-century thinkers on miracles -- C. S. Lewis, Richard Swinburne, Francis Beckwith, Robert Larmer. Third, owing much to Aquinas, Lewis, and Larmer, a particular definition of miracle that is especially central to this investigation will be set out. This definition, it is contended, captures the miraculous nature of two of the foundational miracles of Christianity: namely, the virgin birth and the resurrection of Jesus. Fourth, the four main components of this miracle definition will be examined and defended, and certain aspects of these components will be emphasized. These aspects will serve as pointers to clues in the world as discerned by moral philosophy and contemporary science, clues which will be investigated later in this dissertation (chapters 2-4), clues which enhance the plausibility of a miracle's occurrence (chapter 5).

II. Subjective & Objective Senses

Although the traditional/ biblical view of miracle has more to do with the event *per se* and not merely an observer's reaction to it, the term "miracle" is often used today to describe an observer's subjective reaction to an event, not the event *per se*. A contemporary use of "miracle" has to do with the emotional reaction of pleasant surprise. For example, a not particularly religious listener to CHYM FM Radio in Kitchener-Waterloo receives the randomly-made phone call from morning show hosts George and Tara, learns she has won \$100,000, and in her excitement shouts "It's a miracle!" Of course, one could cast a religious

²The alleged miracles of the Bible (as opposed to some other religious text) will be examined here because those miracles are directly relevant to the alleged miracles that are central to this dissertation, i.e., Jesus' virgin birth and resurrection, the latter of which is the primary focus of Hume's argument. Having a look at these alleged miracles will help us to formulate a philosophical definition.

interpretation onto this event, if one has prayed for, say, financial help.³ It would seem, though, that the event could still very easily be understood in a wholly natural way as a happy coincidence, rather than as a miraculous event due to God's direct intervention in nature. However, if one does cast a religious interpretation onto such an event, it would seem better to view the event not as a miracle but as due to God's providential care. At any rate, as Robert Larmer points out, "our standard use of the word *miracle* implies something stronger than the mere prearranged convergence of independent causal chains."⁴

Another subjective reaction to an event's occurrence is marvel. For example, a mother and father might look at their newborn baby (who was expected to be born without complication and has in fact been born without complication) and they might describe the child as "a miracle."⁵ The parents are not thinking of God intervening in the usual course of nature: child births resulting from pregnancy due to human sperm fertilizing a human ovum are a normal part of the world's ongoing operations. Rather, the parents seem very much merely to be enjoying the apparent mystery and wonder of these operations. In other words -- words from *The Oxford English Dictionary* -- the notion of miracle operative here is the second major sense of "miracle": i.e., the word is "applied hyperbolically to an . . . occurrence so marvelous as to appear

³The scenario of praying for financial help is not too farfetched and seems biblically based. Anecdotes abound here -- even locally. A few years ago, a former student at one of the religious colleges at which this dissertation's author teaches won the CHYM FM prize of \$100,000. Also, and more recently, one of this dissertation's author's part-time teaching colleagues at the aforementioned college won CHYM FM's \$350,000 house giveaway. It is not unreasonable to think that these individuals, with marginal finances and a habit of prayer, petitioned God for financial help.

⁴Robert A. H. Larmer, *Water into Wine? An Investigation of the Concept of Miracle* (Kingston & Montreal: McGill-Queen's University Press, 1988), 8. For a more sympathetic discussion on the topic of "miracles" that can be explained naturalistically, see R. F. Holland, "The Miraculous," *American Philosophical Quarterly* 2 (1965), 43-51; and T. J. Mawson, "Miracles and Laws of Nature," *Religious Studies* 37 (2001): 11-58. A less sympathetic view comes from Michael Levine, who outrightly dismisses such "miracles." According to Levine, "A miracle, philosophically speaking, is never a mere coincidence no matter how extraordinary or significant" (Michael P. Levine, "Miracles," in *Stanford Encyclopedia of Philosophy*, Winter 1997 edition, <<http://setis.library.usyd.edu.au/stanford/entries/miracles/>>).

⁵The author of this dissertation and his wife, as well as millions if not billions of other parents, would undoubtedly attest to this point.

supernatural."⁶

Along somewhat the same lines of having to do with the apparent mystery and wonder of this hyperbolic secondary sense, yet applied in a scientific context, is the idea of miracle as an event that is extraordinary in the extreme because it is causeless. An example of such a miracle would be the (alleged) popping into existence of a virtual particle in the quantum realm. The term "miracle" in this case seems merely to mean an inexplicable event. (As will be argued in the third chapter, however, the alleged popping into existence of a virtual particle, or of anything for that matter, seems to be better understood as a caused event.)

In contrast to the above hyperbolic, secondary sense, *The Oxford English Dictionary* also defines "miracle" in its literal, primary sense, as follows:

A marvelous event occurring within human experience, which cannot have been brought about by human power or by the operation of any natural agency, and must therefore be ascribed to the special intervention of the Deity or of some supernatural being; chiefly, an act (e.g. of healing) exhibiting control over the laws of nature, and serving as evidence that the agent is either divine or is specially favoured by God.⁷

As we will see, exhibiting control over the laws of nature need not require a suspension or violation of those laws; rather, it may only require the employment of the laws for some divine end when a supernatural cause adds something to that to which the laws apply.

The Bible too uses the word "miracle" literally and non-hyperbolically to describe many marvelous events that are alleged to be due to supernatural agency. Still, even in the Bible the word "miracle" has some ambiguity. In spite of this ambiguity, however, in the biblical notion of miracle, the supernatural aspect, not

⁶*The Oxford English Dictionary*, 2nd edition, volume 9, edited by James A. H. Murray, Henry Bradley, W. A. Craigie & C. T. Onions, prepared by J. A. Simpson & E. S. C. Weiner (Oxford: Clarendon Press, 1989), 837.

⁷*The Oxford English Dictionary*, 836-837.

the subjective aspect, is of primary importance.⁸

The word "miracle," as found in English translations of the Bible, derives from *miraculum*, which is Latin for "object of wonder."⁹ In the Bible's original languages, however, there is no single word which corresponds to *miraculum*. The Old Testament usually describes God's activity in the world with the Hebrew words *oth* or *mopheth*, which can be understood as sign or wonder, respectively. The word *oth* is used to describe God's deeds in the ancient Israelites' exodus from Egypt under Moses' leadership: e.g., the various plagues to encourage Pharaoh to free the Israelites, and the parting of the Red Sea just at the right time to allow the Israelites to escape from the approaching Egyptians.¹⁰ The word *mopheth* is used specifically to describe Moses' staff turning into a snake before Pharaoh as well as in general to describe God's aforementioned deeds in the exodus.¹¹ In the New Testament, God's activity in the world is described as sign and wonder, too. The Greek term *semeion* is used to correspond with the Hebrew *oth* and the Greek term *teras* is used to correspond with *mopheth*. The words *semeion* and *teras* occur most frequently in the gospels to describe the well-known miracles performed by Jesus. In addition, in the Old Testament the word *pala* is also used to convey the idea of a difficult accomplishment. Gideon describes God's activity in the exodus with this word.¹² Also, the New Testament often uses the Greek term *dynamis*, which means work of power and

⁸The appeal to the Bible here is not to be understood as an appeal to the Bible as God's Word. Rather, the appeal is simply to the Bible as that collection of ancient documents which describes events alleged to be miraculous, including the events of Jesus' alleged virgin birth and resurrection.

⁹What follows (above) is not to be understood as an exhaustive study of the biblical terms for "miracle." Rather, it is but a sketch. For more detailed discussion, see: Yair Zakovitch, "Miracle (OT)," and Harold E. Remus, "Miracle (NT)," in *The Anchor Bible Dictionary*, Volume 4, edited by David Noel Freedman (New York & Toronto: Doubleday, 1992), 845-856 & 856-869 respectively; M. H. Cressey, "Miracles," in *New Bible Dictionary*, 2nd edition, edited by J. D. Douglas, F. F. Bruce, J. I. Packer, N. Hillyer, D. Guthrie, A. R. Millard, & D. J. Wiseman (Leicester, England/ Wheaton, Illinois: Inter-Varsity Press/ Tyndale House Publishers, 1982), 782-784; Charles E. Hummel, *The Galileo Connection: Resolving Conflicts between Science & the Bible* (Downers Grove, Illinois: InterVarsity Press, 1986), 192-194.

¹⁰See Numbers 14:22 and Deuteronomy 11:3.

¹¹See Exodus 7:9 and Deuteronomy 29:3.

¹²Judges 6:13.

which, like *pala*, conveys the idea of a mighty act.¹³

The biblical view seems very much to be that a miracle's use as a sign, that is, the employment of a miracle to communicate religious significance, hinges upon the wondrousness of the event in question, and the wondrousness of the event in question hinges upon the event's objective extraordinariness or unusualness relative to the usual course of nature, an extraordinariness or unusualness which involves a strong contrast to the usual course of nature. In other words, in the Bible a miracle's extreme extraordinariness and contrast to the usual course of nature suggest a control over nature which points beyond the miracle's occurrence to the supernatural realm, and this pointing bears or confirms a religious meaning. In the Bible a miracle's religious significance/meaning seems to consist of either (1) the event's purposeful occurrence in the context of God's religio-metaphysical economy, or (2) God's confirmation of a religious doctrine of a leader/ teacher, or (3) God's expression of compassion and grace, or (4) some combination of the previous points. In the New Testament, an example of the first would be Jesus' resurrection as an event which defeats the power of death¹⁴; an example of the second would be the Spirit of God descending "as a dove" onto Jesus (at Jesus' baptism) at which time a "voice out of the heavens" is heard to say "This is My beloved Son, in whom I am well-pleased"¹⁵; an example of the third would be Jesus' healing of a woman who had been suffering from a bleeding disorder for twelve years¹⁶; an example of the fourth (i.e., a combination of the first, second, and third) would be Jesus' healing of a paralytic where Jesus also directed those who doubted his authority (to forgive sin) to consider the healing as a sign, "in order that you [i.e., the doubters] may know that the Son of

¹³*Dynamis* is used 120 times in the New Testament. It usually is translated "power" but is translated 8 times as "miracle."

¹⁴See Alister E. McGrath, "The Doctrine of Salvation in Christ," in *Christian Theology: An Introduction*, 2nd edition (Oxford: Blackwell Publishers, 1997), 386-422.

¹⁵See Matthew 3:16-17 NASB.

¹⁶See Luke 8:44b-48.

Man [i.e., Jesus] has authority on earth to forgive sins...."¹⁷

Although it seems clear in the Bible that miracle is understood fundamentally in an objective sense (i.e., it is an extraordinary/unusual *object* of wonder) with the subjective aspect (i.e., the human reaction of wonder) derivative of this objective sense, what perhaps is not as clear is the ontology of some of the Bible's miracles. As will be seen, the control over the laws of nature seems not to be due to any sort of suspending or violation of the operation of these laws: the laws remain intact while other events, either naturally or supernaturally caused, are fed into the physical realm. Consider again the New Testament miracles of Jesus. Some miracles, e.g., Jesus' healing the aforementioned woman with the bleeding disorder, may be psychosomatic, ultimately due to how God created the creature in the first place, simply requiring a robust faith on the part of the sick individual to activate her body's innate healing powers.¹⁸ Interestingly, Augustine conceives of some of the biblical miracles along (roughly) this line as due to "seeds" hidden by God in the creation in the beginning, seeds which could somehow be activated by angels or humans.¹⁹ Somewhat similarly, other miracles, e.g., Jesus' turning water into wine, Jesus' walking on water, Jesus' healing a blind person,²⁰ may be due to Jesus' manipulation of generally unknown natural principles or "seeds" via his superior

¹⁷Matthew 9:6 NASB. For the full story of the paralytic's healing, see Matthew 9:1-8. The healing seems very much to be done out of compassion for the paralytic *and* to provide grounds for belief that Jesus has the authority to forgive the paralytic's sins against God.

¹⁸I am not saying that this is actually true; I am saying it is a plausible possibility. After the woman touched Jesus' robe, she was instantly healed. Jesus' response: "Daughter, your faith has made you well" (Luke 8:48 NASB). This seems to point to the possibility of psychosomatic healing. Nevertheless, I should point out too that when the woman touched Jesus, the account notes that Jesus said to his disciples "power has gone out of Me" (Luke 8:46b NASB). This seems to weaken the case for psychosomatic healing, unless our bodies have a "natural" connection to God's healing power which somehow resides in the world and which can be tapped into by us via faith.

¹⁹Augustine, *De Trinitate*, 3.8.13, translated by Arthur West Haddan, under the title *On the Holy Trinity*, in *A Select Library of the Nicene and Post-Nicene Fathers of the Christian Church*, series 1, volume 3, edited by Philip Schaff (Grand Rapids, Michigan: Wm. B. Eerdmans Publishing Company, 1956), 60-61. Perhaps Jesus sensed that some of these hidden seeds were being tapped into via faith by the woman who touched his robe and was healed.

²⁰See John 2:1-11, 6:16-24, and 9:1-41, respectively, for descriptions of these miracles.

knowledge concerning these natural principles. However, in the cases of the two foundational miracles of historic Christianity, i.e., the miracles of Jesus' virgin birth and Jesus' resurrection, matters seem much different. It very much seems that these miracles could not be due to psychosomatic factors or otherwise nonsupernaturalistic manipulations of already existent matter/energy. These two miracles much rather seem to be due to a direct supernatural intervention into the physical situation. In the case of the New Testament description of Jesus' virgin birth, Jesus' mother (Mary) seems very much to be impregnated directly by a supernatural being.²¹ In the case of the New Testament description of Jesus' resurrection, Jesus' dead body seems very much to be raised to "glorious" life directly by supernatural agency as well.²² Because we are very confident in our knowledge of nature to say without serious reservation that human pregnancy requires human sperm and not just a human egg, and that dead people, if left on their own, do not come to life at all, let alone in a "high-powered" body, it is quite apparent that in the cases of Jesus' virgin birth and Jesus' resurrection a supernatural cause manifests physical effects otherwise beyond the capability of nature's resources. The intervention seems to involve an injection of matter/energy from outside the natural realm. As a result, these effects disrupt the regular course nature would take if there had been no supernatural causal intervention, even though the laws of nature carry on as usual before, during, and after this causal intervention (as they would in a naturally caused intervention).²³

²¹See Luke 1:26-38. Whether Jesus' being miraculously conceived by God in Mary's womb is referred to as "born of a woman" or "born of a virgin," the crucial point in this dissertation is that Jesus' conception was miraculous.

²²See Matthew 28:1ff., Luke 24:1ff., John 20:1ff.

²³In this category one could also include Jesus' multiplication of a few loaves of bread and a few fish into enough bread and fish to feed several thousand people plus have leftovers (see Mark 6:30-44 & 8:1-10). That is, one could include this miracle in the category of *being different* from miracles which arise from "seeds": one would not include this miracle in the category of being foundational of the whole Christian story, though it may have been foundational for spurring some or many people in Jesus' day to become followers of Jesus.

The objection that the First Law of Thermodynamics is violated under this conception of supernatural intervention will be addressed later in the chapter (in section IV-C-3).

III. Philosophical Conceptions

In this section, several philosophical conceptions of miracle will be examined: first, the views of four major historical thinkers on miracles -- Augustine, Aquinas, Locke, and Hume -- and then the views of four major 20th-century thinkers on miracles -- Lewis, Swinburne, Beckwith, and Larmer.²⁴

A. Four Major Historical Thinkers

1. Augustine of Hippo

Although Augustine, as mentioned in the previous section, conceives of some miracles as unusual events caused by "seeds" (occurrences due to activated latent causal principles in nature), he also understands miracles as unusual events produced from outside nature's on-going operations, unusual events produced newly and directly by God²⁵; and Augustine understands both sorts of miracles in teleological terms.²⁶ Not all miracles are due to "seeds" on Augustine's view because, as Augustine points out, "In the first created order [i.e., nature] God did not pre-establish every cause, but retained some in his own will, and those which he has

²⁴The work in this section is not intended to be an exhaustive treatment of *all* the thinkers on miracles; it is intended merely to look briefly at the main players (so to speak), to glean philosophical insights. For some helpful historical overviews of philosophical thought on miracles, see: Robert M. Burns, "Miracles," in *The History of Science and Religions in the Western Tradition: An Encyclopedia*, edited by G. B. Ferngren, E. J. Larson & D. W. Amundsen (New York: Garland Publishing, 2000), 68-73; John A. Hardon, "The Concept of Miracle from St. Augustine to Modern Apologetics," *Theological Studies* 15 (1954): 229-257; and J. Houston, *Reported Miracles* (Cambridge: Cambridge University Press, 1994).

²⁵Augustine, *De Genesi Ad Litteram*, 9.18.33, translated by John Hammond Taylor, under the title *The Literal Meaning of Genesis* (New York: Newman Press, 1982), 93.

²⁶Augustine, *De Civitate Dei*, 10.9, translated by Marcus Dods, under the title *The City of God* (New York: The Modern Library, 2000), 312.

kept in his own will assuredly do not depend on the necessity of created causes."²⁷ Augustine closely connects his understanding(s) of miracle with the human reaction of wonder, which is supposed to direct our minds to God -- indeed, miracles are "wrought for the purpose of commending the worship of the one true God."²⁸ This connection (with wonder, and wonder in turn directing the mind to God in worship) leads Augustine to describe miracles as "whatever appears that is difficult or unusual above the hope or power of them who wonder."²⁹ Interestingly, Simon Blackburn and Antony Flew take Augustine's last statement as Augustine's *definition* of miracle. As a result, Blackburn and Flew complain that Augustine holds a problematic "subjective" (Blackburn) or "relativistic" (Flew) definition of miracle.³⁰ Flew explains the alleged problem that Augustine's view of miracles faces as follows: "To operate with a relativistic notion of this sort is necessarily to be deprived of the possibility of arguing that a miracle is a miracle regardless of whatever anyone may happen to know or to believe about it. . . ."³¹ In other words, what one person takes to be a miracle may be different from what another takes to be a miracle, depending on the persons' differing states of knowledge. Although Flew's (real) and Blackburn's (apparent) charge of epistemological relativism is important and relevant to the issue of identifying or recognizing a miracle's occurrence, to be fair to Augustine it should be emphasized that Augustine, as we have seen, does not neglect the project of defining a miracle

²⁷Augustine, *De Genesi ad Litteram*, 6.18.29, in *Patrologiae latinae*, edited by J. P. Migne (Paris 1861-1900). The above is Joseph Houston's translation from the Latin, taken from Houston, *Reported Miracles*, 15.

²⁸Augustine, *The City of God*, 10.9.

²⁹Augustine, *De Utilitate Credendi*, translated by C. L. Cornish, under the title *On the Profit of Believing* 34, in *A Select Library of the Nicene and Post-Nicene Fathers of the Christian Church*, series 1, volume 3 (Grand Rapids, Michigan: Wm. B. Eerdmans, 1956), 364. Simon Blackburn translates Augustine as saying that a miracle is "whatever is hard or appears unusual beyond the expectation or comprehension of the observer" (Simon Blackburn, *The Oxford Dictionary of Philosophy* [Oxford & New York: Oxford University Press, 1994], 245).

³⁰Blackburn, *Dictionary*, 245; Antony Flew, "Miracles," in *The Encyclopedia of Philosophy* Volume 6, edited by Paul Edwards (New York & London: Macmillan Publishing Co., Inc. & The Free Press/ Collier Macmillan Publishers, 1967), 348.

³¹Flew, "Miracles," 348.

in objective, metaphysical terms. Besides his hidden "seeds" concept, for Augustine a miracle is an unusual instance of the direct causal efficacy in nature of that same will (God's) which is otherwise expressed in the usual course of nature. (To be sure, Augustine acknowledges, a miracle or "portent" may be contrary to what we *know* of nature, but it is not contrary to nature *itself*.³²) Blackburn and Flew, then, mistakenly take Augustine's criterion for identifying or recognizing a miracle, a criterion that has subjective person-relative elements, for Augustine's definition of a miracle, which is thoroughly objective.³³

2. Thomas Aquinas

Aquinas refines Augustine's understanding of the nature of the direct supernatural intervention by making more explicit the connection between the wondrousness of a miracle and the actual cause of a miracle.³⁴ To do this, Aquinas makes a distinction in the notion of wonder. According to Aquinas, "a thing may be wonderful in itself, or it may be wonderful to us."³⁵ The latter case of wonder is due to our ignorance of causes. For example, "the astronomer is not astonished when he sees an eclipse of the sun, for he knows its cause, but the person who is ignorant of this science must be amazed, for he ignores the cause."³⁶ On the other hand, "a thing that has a completely hidden cause is wondrous in an unqualified way [i.e., wonderful in

³²Augustine, *The City of God*, 21.8.

³³Anselm of Canterbury follows Augustine in conceiving of miracles as events or things brought about directly by God. For further comments on Anselm, see: Benedicta Ward, *Miracles and the Medieval Mind* (Philadelphia: University of Pennsylvania Press, 1982), 4; and Houston, *Reported Miracles*, 20.

³⁴Much of what follows comes from St. Thomas Aquinas, *Summa Contra Gentiles*, translated by Vernon J. Bourke, under the title *On the Truth of the Catholic Faith* (New York: Doubleday and Co., 1956), 3.101.1-2. See too St. Thomas Aquinas, *Quaestiones Disputatae de Potentia*, translated by the English Dominican Fathers, under the title *On the Power of God* (London: Burns, Oates & Washbourne Ltd., 1933), 6.2.

³⁵Aquinas, *On the Power of God*, 6.2.

³⁶Aquinas, *On the Truth of the Catholic Faith*, 3.101.1.

itself], and this the name, *miracle*, suggests."³⁷ True wonder comes from a cause that is, "absolutely speaking," hidden from all people: namely, God.³⁸ And so, for Aquinas, "those things must properly be called miraculous which are done by divine power [i.e., God's power] apart from the order [i.e., powers, dispositions, principles] generally followed in things."³⁹ That is, for Aquinas, a miraculous event occurs apart from, but not necessarily in conflict with, the order of nature.

Aquinas distinguishes three categories of miracles: "those which are done above, those which are done against, and those which are done without nature."⁴⁰ According to Aquinas, "A miracle is *above* nature when God produces an effect which nature is wholly incapable of producing."⁴¹ Aquinas understands this to be the case when God induces matter to take a form which is wholly beyond nature's capacity to produce. Examples of these miracles, according to Aquinas, are the Incarnation and the glorified resurrection bodies of the elect (and presumably Jesus' resurrection).⁴² Also, a miracle is above nature when God causes matter to take a form which is not wholly beyond nature's capacity to produce but nature is simply unable to produce it in a particular case. An example of this type of miracle is a resurrection of a dead body in a non-glorified resurrection body.⁴³ Second, according to Aquinas, "A miracle is *contrary* to nature, when nature retains a

³⁷Aquinas, *On the Truth of the Catholic Faith*, 3.101.1. Recall that the word *miraculum* means object of wonder.

³⁸Aquinas, *On the Truth of the Catholic Faith*, 3.101.1.

³⁹Aquinas, *On the Truth of the Catholic Faith*, 3.101.1.

⁴⁰Aquinas, *On the Power of God*, 6.2, Reply to the Third Objection. This division to a large extent reflects the three main "degrees and orders" of miracles that Aquinas sets out in *On the Truth of the Catholic Faith* (3.101.2-4). The main differences will be noted as this section progresses.

⁴¹Aquinas, *On the Power of God*, 6.2, Reply to the Third Objection. In *On the Truth of the Catholic Faith*, 3.101.2, Aquinas says that "the highest rank among miracles is held by those events in which something is done by God which nature never could do."

⁴²In *On the Truth of the Catholic Faith*, examples of this highest rank include the sun standing still and the opening of a sea to provide a path (Aquinas, *On the Truth of the Catholic Faith*, 3.101.2).

⁴³Aquinas probably has Lazarus in mind here; see John 11:1-12:19. In his classification in *On the Truth of the Catholic Faith*, Aquinas takes this sort of work of God as belonging to his second rank or degree of

disposition contrary to the effect produced by God."⁴⁴ As an example of a miracle occurring contrary to nature, Aquinas points to the "three children" who were protected by God's power from a fire's ongoing power to burn them when they were thrown into a fiery furnace by guards, a furnace so hot that the fire's heat killed the guards. (Aquinas is probably referring to the three young Hebrew men -- Shadrach, Meshach and Abednego -- who reportedly were thrown into a fiery furnace for refusing to obey King Nebuchadnezzar's command to worship an "image of gold."⁴⁵) Another instance of such a miracle occurred "when the waters of the Jordan stood ... while retaining the force of gravity."⁴⁶ Also, Aquinas subsumes Jesus' being born to a virgin under this category (as well as under the first category). In these examples, a natural disposition remains which is thwarted or deflected by God's intervention.⁴⁷ Third, "A miracle is done by God *without*

miracles. According to Aquinas, "the second degree among miracles is held by those events in which God does something which nature can do, but not in this order. It is a work of nature for an animal to live, to see, and to walk; but for it to live after death, to see after becoming blind, to walk after paralysis of the limbs, this nature cannot do -- but God at times does such works miraculously." (Aquinas, *On the Truth of the Catholic Faith*, 3.101.3.)

⁴⁴Aquinas, *On the Power of God*, 6.2, Reply to the Third Objection.

⁴⁵See Daniel 3:19-30.

⁴⁶Aquinas, *On the Power of God*, 6.2, Reply to the Third Objection. See too Joshua 3:13-16 NASB: "'And it shall come about when the soles of the feet of the priests who carry the ark of the LORD, the Lord of all the earth, shall rest in the waters of the Jordan, the waters of the Jordan shall be cut off, *and* the waters which are flowing down from above shall stand in one heap.' So it came about when the people set out from their tents to cross the Jordan with the priests carrying the ark of the covenant before the people, and when those who carried the ark came into the Jordan, and the feet of the priests carrying the ark were dipped in the edge of the water . . . that the waters which were flowing down from above stood *and* rose up in one heap So the people crossed opposite Jericho."

⁴⁷Interestingly, Aquinas' also orders miracles of this second category -- i.e., the category of miracles that are done against nature -- in his highest rank, as shown by the previously noted example of the opening of a sea to provide a path (see footnote 41). It is also interesting to note that Aquinas probably would not see a stopping of decay, as in the case of a miraculous resuscitation of a dead body, as a thwarting of nature. A thwarting of nature, as in the above cases of the fire and the waters, involves a *telos* not being realized (i.e., the fire's consuming the furnace's contents, and the waters' going to the earth's centre). For Aquinas, though, it is not in the nature of a thing to be corrupted, i.e., not in its *telos*, so decay would not be a truly natural disposition. Today, we would see a stopping of decay via supernatural intervention as a thwarting of nature's dispositions.

nature, when he produces an effect that nature can produce, but in a manner of which nature is incapable."⁴⁸ For example, nature can produce wine out of a grape which has grown on a vine nourished by water, sun, and soil, but Jesus miraculously changed water into wine when nature's needed resources (the vine, etc.) were lacking.⁴⁹ In view of the above classification (the classification scheme discussed in the footnotes included), Aquinas's idea seems to be that God's miracle-working power is of supernatural origin and -- although its physical effects are sometimes wholly beyond nature's capacity ever to produce, or sometimes merely not producible by the natural causes in close proximity of the event (but not wholly beyond nature's capacity if those causes that could cause the event were actually there) -- God's miracle-working power does not violate nature's integrity. In other words, depending on the type of miracle, when God's supernatural power operates in the natural realm, it engages nature and nature responds to God's supernatural power as if it were (1) a freshly introduced but not altogether new natural power or (2) a freshly introduced and altogether new natural power (where "altogether new natural power" is understood as a power wholly different from existing natural powers); and in this engagement with nature, no conflict with or suspension of nature's laws occurs.

Aquinas also understands miracles to have religious significance. Miracles can show God's power and control over the world. Aquinas writes:

⁴⁸Aquinas, *On the Power of God*, 6.2, Reply to the Third Objection.

⁴⁹In *On the Truth of the Catholic Faith*, Aquinas seems to include miracles from this third category -- i.e., the category of a miracle done by God without nature's resources -- under his second and third ranks of miracles. Recall that the second rank "is held by those events in which God does something which nature can do, but not in this order" (Aquinas, *On the Truth of the Catholic Faith*, 3.101.2). According to Aquinas, examples of this second rank include gaining sight after blindness and becoming alive after dying (the idea is that nature can produce blindness after sightedness and death after life, but not the other way round). The third rank of miracles "occurs when God does what is usually done by the working of nature, but without the operation of the principles of nature" (Aquinas, *On the Truth of the Catholic Faith*, 3.101.2). According to Aquinas, examples of this third rank include the healing of an individual from his/her fever without the use of medicine or the bringing about of rain without the natural conditions required for rain.

Jesus' being conceived without the sperm from a human father and Jesus' resurrection in a new body with supernatural powers would very apparently fall under the category of "highest rank." (If Jesus were merely to come alive after dying, that is, be resuscitated, then this event would fall under the second rank. Jesus' resurrection, however, consists of much more than a mere resuscitation.)

[I]t can be manifested in no better way, that the whole of nature is subject to the divine will, than by the fact that sometimes He does something outside the order of nature. Indeed, this makes it evident that the order of things has proceeded from Him, not by natural necessity, but by free will.⁵⁰

Or miracles can play a role in confirming a teaching or alleged revelation to be from God:

[I]n matters of divine revelation above human reason, confirmation is provided in ways which are proper to divine power. This is in two ways. Firstly, such that the teacher of sacred teaching should do what God alone can do by performing miracles: this may be for bodily health, and so we have the *grace of healing*; or it may be for the pure display of divine power, as when the sun stands still or becomes dark, or the waters are divided; and here we have the *working of miracles*. Secondly, by being able to display what it belongs to God alone to know. These are future contingencies, where we have *prophecy*, and also the secrets of the heart, for which we find the *discernment of spirits*.⁵¹

3. John Locke

John Locke defines miracle as "a sensible operation, which, being above the comprehension of the spectator, and in his opinion contrary to the established course of nature, is taken by him to be divine."⁵² Flew also calls this definition "relativistic" and Blackburn would probably call it "subjectivist." Again, although Flew's (real) and Blackburn's (apparent) charge of epistemological relativism is especially relevant to the issue of identifying a miracle's occurrence, it should be noted that Locke, like Augustine, does not neglect the project of defining a miracle in objective, metaphysical terms. Locke also describes miracles as "divine operations [that] are in themselves beyond the power of all created beings, or at least operations contrary to the fixed and established laws of Nature."⁵³ So why does Locke set out the relativistic-looking definition that

⁵⁰Aquinas, *On the Truth of the Catholic Faith*, 3.99.9.

⁵¹Aquinas, *Summa Theologiae*, 1a2ae.111.4.

⁵²John Locke, *A Discourse of Miracles*, in *The Reasonableness of Christianity*, edited by I. T. Ramsey, Library of Modern Religious Thought (Stanford, California: Stanford University Press, 1958), 79.

⁵³Locke, *A Discourse of Miracles*, 86.

he does? Locke thinks that if we define miracles in an objective, metaphysical way, then the testimony of miracles would lose "its due force to all sorts and degrees of people."⁵⁴ In other words, Locke seems to think that a metaphysical definition will make a miracle's occurrence too difficult for people to discern and so he opts for setting out his epistemological or, per Flew and Blackburn, "relativistic"/ "subjectivist" definition. Interestingly, Locke does not see this as a slide into relativism or subjectivism. Locke believes that God in His faithfulness will help people identify actual miracles as such, for God will ensure that the miracles will "carry with them such strong marks of an extraordinary divine power."⁵⁵ However, as Joseph Houston points out, Locke seems not to notice that if God ensures that the observer can discern that an event is a miracle, then God in effect ensures that the observer *can* discern miracles as metaphysically conceived -- and so Locke's subjective definition of miracle is actually, albeit inadvertently, abandoned in favour of his (previously rejected) objective definition.⁵⁶ Apparently, then, Locke confuses the issue of defining miracle with the issue of reasonably identifying or discerning a miracle's occurrence. Confusion or not, the point remains that to make sense of Locke's epistemological definition of miracle plus his reliance on God to help us recognize *actual* miracles we must presuppose, as even Locke does, a metaphysical definition. Setting Locke's protestations aside, then, for Locke miracles are in fact understood as "divine operations [that] are in themselves beyond the power of all created beings, or at least operations contrary to the fixed and established laws of Nature."⁵⁷ In addition, Locke holds that miracles have a purpose: they are "for the evidencing of some

⁵⁴Locke, *A Discourse of Miracles*, 86.

⁵⁵Locke, *A Discourse of Miracles*, 83.

⁵⁶Houston, *Reported Miracles*, 35-41.

⁵⁷Locke, *A Discourse of Miracles*, 86. It is difficult to discern Locke's intended difference between the disjuncts "divine operations [that] are in themselves beyond the power of all created beings" and "[divine] operations [that are] contrary to the fixed and established laws of Nature." It seems that the latter is an implication of the former as opposed to something wholly different.

revelation or mission to be from Him [God]."⁵⁸

4. David Hume

Hume, in his conception of miracle, disregards religious significance entirely and emphasizes the aspect of law violation/ transgression -- that aspect in which Hume famously sees the seeds for the destruction of miracle testimony, as pointed out in the introduction of this dissertation. According to Hume, "A miracle may be accurately defined [as] *as a transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent.*"⁵⁹ Also, says Hume, "A miracle is a violation of the laws of

⁵⁸John Locke, *The Reasonableness of Christianity*, edited by I. T. Ramsey, Library of Modern Religious Thought (Stanford, California: Stanford University Press, 1958), 41. At this juncture, it seems appropriate to address a *theological* objection made by Benedict de Spinoza against the possibility of miracles. According to Spinoza (in his *Tractatus theologico-politicus*, translated by Samuel Shirley, with an Introduction by Brad S. Gregory [Leiden: E. J. Brill, 1989], chapter 6), nothing can happen that is contrary to the order we find in nature (here we can understand "contrary" not as a violation of the natural order but as an intervention in or interference of the natural order). On Spinoza's view, the order in nature as characterized by natural laws is due to God's will, and since the laws of nature are known by God necessarily and since God's will and knowledge are identical, the laws of nature are therefore eternal and unchanging and characterized by necessity. Consequently, any change in nature would mean a change in God such that He is contradicting Himself. William Lane Craig clearly sets out and summarizes Claude Francois Houtteville's interesting response to Spinoza, so Craig will be quoted: "Houtteville responds that natural law is not necessary, but that God is free to establish whatever laws he wills. Moreover, God can change his decrees whenever he wishes. And even if he could not, miracles could be part of God's eternal decree for creation just as much as the natural laws, so that they represent no change in God." (Claude Francois Houtteville, *La religion chretienne prouee par les faits* [Paris: Mercier & Boudet, 1740]; William Lane Craig, *Reasonable Faith* [Wheaton, Illinois: Crossway, 1994], 134.) Craig also correctly points out that although it is necessarily true that what God knows is true and that God knows His will, it is not necessarily true that God's will cannot be different nor that the content of God's knowledge cannot be different, because God is free to will differently than He does (Craig, *Reasonable Faith*, 145). In other words, as William Dembski points out (in criticizing Friedrich Schleiermacher, who follows Spinoza), Spinoza's system of nature closed to God's free involvement is only one metaphysical option for God, i.e., "It is not the only game in town." (William A. Dembski, *Intelligent Design: The Bridge Between Science & Theology* [Downers Grove, Illinois: InterVarsity Press, 1999], 66.) Another "game in town" has God answering prayer and otherwise miraculously engaging the natural system.

⁵⁹David Hume, *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, edited by L. A. Selby-Bigge, 3rd edition, revised by P. H. Nidditch (Oxford: Clarendon Press, 1975), 115n.; Hume's italics. Hereafter, I will refer to Hume's *Enquiry Concerning Human Understanding* (as found in the aforementioned work) simply as *Enquiry*.

nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, from the very nature of the fact, is as entire as any argument from experience can possibly be imagined."⁶⁰

David Johnson attempts to refine Hume's definition of miracle to avoid interpreting Hume's argument too simply as an *a priori* dismissal of miracles, which it seems not to be. (The alleged *a priori* dismissal of miracles would run as follows: If a law of nature is an exceptionless regularity, and if a miracle is a violation/exception of a law of nature, then "since we know *a priori* that there are no exceptions to exceptionless regularities, we know *a priori* that there are no miracles."⁶¹) To be sensitive to Hume's extreme empiricism with regard to the laws of nature that a miracle purportedly violates, and also to make sense of Hume himself apparently not taking his own argument as an *a priori* dismissal of miracles (otherwise Hume's "Of Miracles" would be much shorter than it is), Johnson takes Hume to define miracles as follows: "for any person *x*, for any time *t*, for any possible event *m*, *m* is a *miracle* for *x* at *t* if and only if *m* actually occurs at some time and *m* is a violation of (an exception to) something which is for *x* at *t* exceedingly well established, relative to a body of inductive evidence, as being a law of nature."⁶² "More pithily," Johnson adds, "*a miracle is a violation of an apparent law of nature*, where the indexing to person and time, and the epistemic aspect above, is built into the word 'apparent.'"⁶³ George Mavrodes, however, points out that Johnson's definition has a result so paradoxical that we should reject it (Johnson's definition). Mavrodes argues cogently as follows:

The resurrection of Jesus violates the generalization that all of the dead remain dead. But

⁶⁰Hume, *Enquiry*, 114. Peter Vardy describes Hume's "violation" concept of miracle as a "classic understanding of miracle" (Peter Vardy, *The Puzzle of God*, new edition [London, England: HarperCollins Publishers, 1999], 203).

⁶¹David Johnson, *Hume, Holism, and Miracles*, Cornell Studies in the Philosophy of Religion, series edited by William P. Alston (Ithaca & London: Cornell University Press, 1999), 6. C. S. Lewis interprets Hume in this way in C. S. Lewis, *Miracles: A Preliminary Investigation* (London: Geoffrey Bles, 1947, 1960; reprint, New York: Simon & Schuster/ Touchstone, 1996), 134-135.

⁶²Johnson, *Hume, Holism, and Miracles*, 9.

⁶³Johnson, *Hume, Holism, and Miracles*, 9.

(assuming that Jesus really did rise) that generalization is not a genuine law of nature. It is only an apparent law, though perhaps supported by a lot of empirical evidence. It will be an apparent law relative to people who think that it is a genuine law. That is, it will be an apparent law relative to people who mistakenly believe that it is a genuine law. To such people the resurrection of Jesus will present a miraculous aspect. But there may be other people, those who do not accept that generalization as true (and they, of course, are right in rejecting it). Relative to them it is not an apparent law of nature. And so, to them, the resurrection of Jesus will not appear as miraculous. Thus it seems to be a consequence of Johnson's way of construing a miracle that as soon as a person recognizes the reality of some miracle it ceases to be a miracle for him or her. E.g., some person might initially think that it is a law of nature that anyone who dies remains dead thereafter. And that person might have a lot of inductive evidence in support of that generalization. But if that person came to recognize the reality of the resurrection of Jesus, then that person would have very good reason to think that the generalization about the dead is false. That person's total evidence would no longer support the generalization; it would instead count conclusively against it. And so it would seem that the only person who could consistently envision the possibility that Jesus' resurrection was a miracle would be the people who think that Jesus did not really rise from the dead. And that seems like a paradoxical result.⁶⁴

In other words (and hopefully more clearly put), what Mavrodes is telling us is that, on Johnson's view, if the resurrection of Jesus is actually seen, then the generalization that all dead people remain dead is seen not to hold, which means that the generalization is seen not to be a genuine law, which means that the generalization can no longer be seen as an apparent law that gets violated -- and so the resurrection of Jesus cannot be a miracle. But this result contradicts the assumption that Jesus' resurrection *is* a miracle.

It would seem fair to Hume, then, that Johnson should stick with the notion of miracle as a violation of a *real* rather than merely *apparent* law of nature, in spite of Hume's radically empirical view of laws of nature. This conclusion is additionally supported by the fact that Hume is setting out an argument against defenders of miracle who appeal to testimony concerning some fact that is, as Hume concedes (for the sake of argument), "really miraculous," and so would violate a real law of nature.⁶⁵ Because the concept of miracle construed as an actual violation of a real law of nature will be discussed in greater detail (and in important

⁶⁴George I. Mavrodes, Review of *Hume, Holism, and Miracles* by David Johnson, *Philosophia Christi*, Series 2, 3:1 (2001): 254.

⁶⁵Hume, *Enquiry*, 114.

senses dismissed) later in this chapter, not much more will be said here about Hume's concept of miracle. Nevertheless, it will be said here (and later defended) that what a miracle does violate is a purportedly true description of the course of nature if it (the course of nature) were not interfered with by a supernatural cause; a miracle does not violate an actual law of nature *per se*.⁶⁶

B. Major 20th-century thinkers

1. Richard Swinburne

Although chronologically Swinburne comes after Lewis, and Beckwith after Larmer, Swinburne's concept of miracle will be looked at first, because in an important sense Swinburne follows Hume, and Beckwith follows Swinburne, and because Lewis and Larmer's views seem best to be examined closely together.

Swinburne defines miracle as "an event of an extraordinary kind, brought about by a god, and of religious significance."⁶⁷ Swinburne, like Hume, understands an event of an extraordinary kind to be "an event

⁶⁶For an important examination of Hume's view(s) concerning a natural law, see John P. Wright, *The Sceptical Realism of David Hume* (Minneapolis: University of Minnesota Press, 1983). According to Wright, there are two interpretations of Hume on natural law. On the first view there are no necessary connexions or natural laws, only constant conjunctions between events; on the second view constant conjunctions are taken as a sign of real natural laws, which we believe or assume exist. Wright dubs the first interpretation "sceptical" and the second "realist." Wright points out that "Hume's realist assumptions about the existence of unknown powers are more pronounced in the *Enquiry* than in the earlier *Treatise*. However, in the later book, as well as the earlier, Hume clearly indicated his belief that we have no idea of the causal power in objects and that the idea which we have in its place is purely subjective." (Wright, *The Sceptical Realism of David Hume*, 3.) Interestingly, Wright points out that Hume did not see any inconsistency between the sceptical and realist sides of his philosophy, and Wright goes on to "try to show how scepticism and realism combine to form a unified philosophical system...." (Wright, *The Sceptical Realism of David Hume*, 3, 7.)

⁶⁷Richard Swinburne, *The Concept of Miracle*, New Studies in the Philosophy of Religion, series edited by W. D. Hudson (London & Basingstoke: Macmillan, 1970), 1. Swinburne sets out the same definition of miracle in Richard Swinburne, "Introduction," in *Miracles*, edited by Richard Swinburne, Philosophical Topics, series edited by Paul Edwards (New York: Macmillan Publishing Company, 1989), 2. Swinburne deviates somewhat from his previous definition in Richard Swinburne, "Miracle," in *The Cambridge*

which goes against [natural laws] or 'violates' them."⁶⁸ Because such an understanding of a miracle's extraordinariness will be examined in greater detail (and in important senses rejected) later in the chapter, no more will be said on this matter here. Unlike Aquinas, Swinburne understands "god" not narrowly to mean only the God of theism but more broadly as "a non-embodied rational agent of great power."⁶⁹ Swinburne adds:

By the agent being 'non-embodied' I mean that (except perhaps temporarily and by his own choice) he has no body; there is no one material object, occurrences affecting which he feels and which he has particularly under his control, to be distinguished from other material objects of which this is not true. By a rational agent I mean a being who can reason, choose, decide, intend, has likes and dislikes, is capable of moral or immoral action. By the agent being of great power I mean that he can produce effects in the world far beyond the powers of men to produce.⁷⁰

Like Aquinas, Swinburne understands a miracle's religious significance widely and narrowly. On the wide understanding, the religious significance of a miraculous event consists of it being "a good event and a contribution to or foretaste of the ultimate destiny of the world."⁷¹ On the narrow understanding, the religious significance of a miraculous event consists of it confirming a religious doctrine or the holiness of a person.⁷²

Dictionary of Philosophy, 2nd edition, edited by Robert Audi (Cambridge & New York: Cambridge University Press, 1999), 573. In the latter work, Swinburne defines miracle merely as "an extraordinary event brought about by God." Because Swinburne's above-mentioned earlier works on miracles make explicit reference to the religious significance of miracles, and because Swinburne's chapter on miracles in his *The Existence of God*, 2nd edition (Oxford & New York: Clarendon Press, 1991; chapter 12) assumes the religious significance of miracles, Swinburne's definition of miracle will here be taken as including religious significance. Also, Swinburne's definition of miracle will here be taken as including god as a miracle's cause, whether "god" is capitalized or not.

⁶⁸Swinburne, *The Concept of Miracle*, 3.

⁶⁹Swinburne, *The Concept of Miracle*, 6.

⁷⁰Swinburne, *The Concept of Miracle*, 6.

⁷¹Swinburne, *The Concept of Miracle*, 8.

⁷²Swinburne, *The Concept of Miracle*, 8.

2. Francis Beckwith

Beckwith defines miracle as "a divine intervention [by a 'god'] which occurs contrary to the regular course of nature within a significant historical religious context."⁷³ Beckwith, like Hume and Swinburne, understands "contrary to the regular course of nature" to mean a violation of a law of nature.⁷⁴ Also, Beckwith understands the aforementioned definition of miracle to entail logically the following proposition (among others): "A miracle is rationally inexplicable by scientific law."⁷⁵

With regard to the above proposition, it is interesting to note that Beckwith holds that miracles should not be defined as *permanently* inexplicable in terms of scientific laws (where scientific laws are taken as true statements of natural laws). Rather, according to Beckwith, a miracle should be defined merely as "inexplicable in terms of what we know about currently well-established scientific laws."⁷⁶ This seems mistaken, however. Beckwith is motivated to understand miracles this way because a miracle's inexplicability in terms of what we know about currently well-established scientific laws may be very helpful in *identifying* a miracle when one occurs.⁷⁷ But this concern, though important, is an epistemological concern. *Defining* a miracle -- i.e., setting out the conditions of what a miracle *is* (which is what Beckwith is purportedly doing)

⁷³Francis J. Beckwith, "David Hume's Argument Against Miracles: Contemporary Attempts to Rehabilitate It and a Response" (Ph.D. dissertation, Fordham University, 1988), 11. This dissertation (with some revisions) was later published as a book: Francis J. Beckwith, *David Hume's Argument Against Miracles: A Critical Analysis* (Lanham, Maryland: University Press of America, 1989). See too: Francis J. Beckwith, "Theism, Miracles, and the Modern Mind," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 221. In the latter work, Beckwith describes the divine intervention in terms of "the action of a non-natural agent, e.g. a god, an angel."

⁷⁴Beckwith, "David Hume's Argument Against Miracles," 14; Beckwith, "Theism, Miracles, and the Modern Mind," 222.

⁷⁵Beckwith, "David Hume's Argument Against Miracles," 11.

⁷⁶Beckwith, "David Hume's Argument Against Miracles," 17. As we will see, Beckwith later seems to change his mind about this.

⁷⁷For an instance of this, see Beckwith, "Theism, Miracles, and the Modern Mind," 224-225.

-- is an ontological concern. Because the project is to *define* the concept of miracle, and because, as Beckwith agrees, a miracle is caused directly by a "god", it should be defined as *permanently inexplicable* in terms of scientific laws. After all, scientific laws have to do with *nature*, and God's or a God-like being's causal interventions in nature are from *outside* of nature. Regarding the epistemological issue of recognizing a miracle when one occurs, it seems that the criterion of inexplicability in terms of what people know about currently well-established scientific laws can provide the basis for a reasonable case for thinking that events such as Jesus' virgin birth or Jesus' resurrection are in fact permanently inexplicable in terms of scientific laws.

At this juncture, it may be tempting to think that Beckwith, like G. W. Leibniz, holds that in a miracle "[God] departs from one law only for another law more applicable"⁷⁸ -- and so Beckwith is right to define miracles as *not* permanently inexplicable by scientific laws/ laws of nature. This would be a mistake. According to Leibniz, the more applicable law in question has to do with "an order superior to that of Nature."⁷⁹ Indeed, Leibniz says, "I hold, that when God works miracles, he does not do it in order to supply the wants of nature, but those of grace."⁸⁰ Also, Leibniz points out, "The distinguishing mark of miracles (taken in the strictest sense) is that they cannot be accounted for by the natures of created things."⁸¹ But these natures of created things are what *scientific laws* and *laws of nature* are ultimately all about. Thus, miracles *are* permanently inexplicable by scientific laws/ laws of nature.

Moreover, and also contrary to what Beckwith holds, miracles are not violations of the laws of nature either, as will be seen.

⁷⁸G. W. Leibniz, *Theodicy*, edited by Austin Farrer & translated by E. M. Huggard (London: Routledge & Kegan Paul Limited, 1951), section 207, p. 257.

⁷⁹Leibniz, *Theodicy*, section 207, p. 257.

⁸⁰G. W. Leibniz, "Mr. Leibnitz's First Paper," in *The Leibniz-Clarke Correspondence*, edited by H. G. Alexander (New York & Manchester: Barnes & Noble/ Manchester University Press, 1956), 12.

⁸¹Leibniz, *Theodicy*, section 207, p. 257.

3. C. S. Lewis

Lewis understands miracle to be "an interference with Nature by supernatural power."⁸² Unlike Hume's and Swinburne's and Beckwith's conceptions of miracle, this interference does not involve a violation of a law of nature. According to Lewis, "The divine art of miracle is not an art of suspending the pattern to which events conform but of feeding new events into that pattern."⁸³ And, unlike one of Aquinas's conceptions of miracle, for Lewis the interference does not consist of an inducing of form into already existing matter. For Lewis, a miracle occurs when God "annihilates or creates or deflects a unit of matter."⁸⁴ (Arguably, when Aquinas classifies miracles as "done above" or "done against" or "done without" nature, Aquinas leaves open the possibility of a Lewisian miracle; Aquinas does not say that all miracles involve an inducing of form into already existing matter.) Moreover, Lewis writes:

If God annihilates or creates or deflects a unit of matter He has created a new situation at that point. Immediately all Nature domiciles this new situation, makes it at home in her realm, adapts all other events to it. It finds itself conforming to all the laws. If God creates a miraculous spermatozoon in the body of a virgin, it does not proceed to break any laws. The laws at once take it over. Nature is ready. Pregnancy follows, according to all the normal laws, and nine months later a child is born.⁸⁵

Lewis adds:

We see every day that physical nature is not in the least incommoded by the daily inrush of events from biological nature or from psychological nature. If events ever come from beyond Nature altogether, she will be no more incommoded by them. Be sure she will rush to the point where she is invaded, as the defensive forces rush to a cut in our finger, and there hasten to accommodate the newcomer. The moment it enters her realm it obeys all her laws.⁸⁶

⁸²Lewis, *Miracles*, 12.

⁸³Lewis, *Miracles*, 81.

⁸⁴Lewis, *Miracles*, 81.

⁸⁵Lewis, *Miracles*, 81.

⁸⁶Lewis, *Miracles*, 81.

Lewis does not state explicitly the claim that religious significance is a necessary condition of miracle, apparently because his work on miracles is but a preliminary study (as indicated by the subtitle of Lewis's main work, *Miracles: A Preliminary Study*). Nevertheless, it is clear -- especially in Lewis's discussion of the Incarnation as "The Grand Miracle" -- that, with Augustine, Aquinas, Locke, Swinburne, Beckwith, and (as we will see) Larmer, he takes an important aspect of the notion of miracle to be its religious significance (as understood in the Bible).⁸⁷

4. Robert Larmer

Larmer takes the notion of miracle to involve four fundamental ideas.⁸⁸ First is the idea that "a miracle is a physical event which is beyond the ability of an unaided nature to produce," either at all or via the natural causes at the scene of the miracle's occurrence.⁸⁹ Second, "a miracle is brought about by a rational agent [who transcends nature]."⁹⁰ Third, a miracle is "an event of an extraordinary kind."⁹¹ Fourth, a miracle has "religious significance."⁹² In his understanding of the first three ideas, Larmer especially follows Lewis's understanding of miracle in the following sense: The supernatural agent who produces a miracle neither

⁸⁷Lewis, *Miracles*, 143ff.

⁸⁸Robert A. H. Larmer, *Water into Wine? An Investigation of the Concept of Miracle* (Kingston & Montreal: McGill-Queen's University Press, 1988), 5, 14.

⁸⁹Larmer, *Water into Wine?*, 5. See too page 8. My attached disjunction seems to be implied by Larmer's overall work.

⁹⁰Larmer, *Water into Wine?*, 5. See too pages 8-9.

⁹¹Larmer, *Water into Wine?*, 5. See too pages 9-10.

⁹²Larmer, *Water into Wine?*, 5. See too pages 10-12.

violates a law of nature nor merely induces matter to take a new form; rather, the supernatural agent introduces into the natural situation new physical events, via the creation and/or annihilation of matter/energy.⁹³ Larmer takes Jesus' virgin birth, healings, and multiplication of loaves and fish as "all quite easily explained" on this account.⁹⁴ Indeed, says Larmer,

All physical events, including miracles, can be described in terms of a certain amount and ordering of energy. If the event can be conceived then so can that particular amount and ordering of energy. Thus, for any miracle, it would always be possible for a transcendent agent to produce it by the creation or annihilation of energy, since all that is required is that the agent bring about the particular amount and ordering of energy necessary for the miracle.⁹⁵

Although the net effect of Larmer's first three ideas is helpful in understanding the concept of miracle, Larmer's first idea (that a miracle is a physical event which is beyond the ability of an unaided nature to produce either at all or via the natural causes at the scene of the miracle's occurrence) can be subsumed under his third. According to the third idea, a miracle must be extraordinary, i.e., an "unusual event," in the sense that it is "an exception to the normal pattern of events in the natural world."⁹⁶ It need not be absolutely unique, though, because, as Larmer points out, "the fact that Christ multiplied loaves and fishes on more than one occasion will scarcely persuade us that these events were not miracles."⁹⁷ This seems correct. However, the first idea (that a miracle is a physical event which is beyond the ability of an unaided nature to produce either at all or via the natural causes at the scene of the miracle's occurrence) seems simply to be an aspect of the condition of extraordinariness or unusualness understood in a strong sense, i.e., in the sense that it is an exception -- an extreme exception -- to the normal pattern in the natural world. After all, the normal pattern

⁹³Larmer, *Water into Wine?*, 20.

⁹⁴Larmer, *Water into Wine?*, 28.

⁹⁵Larmer, *Water into Wine?*, 29.

⁹⁶Larmer, *Water into Wine?*, 9.

⁹⁷Larmer, *Water into Wine?*, 9.

in the natural world is that events beyond the ability of an unaided nature to produce do not occur.⁹⁸ Moreover, if such an event does occur, then it presents us with the contrast that is typical of miracles that are of interest in this dissertation: it violates the prediction of a physical law (when given specific physical initial conditions and assuming no interference) but not the physical law *per se*.

Regarding religious significance, Larmer clearly follows Swinburne. Larmer holds that "if an event is to be called a miracle then it must be possible to interpret it as contributing towards a holy and divine purpose."⁹⁹ This may be understood merely to mean that "a miracle be consistent with God's purposes broadly understood," purposes such as healing, comforting, and reviving.¹⁰⁰ Also, a miracle may be used "on

⁹⁸Larmer sometimes describes the miracle's cause as "overriding" nature (Larmer, *Water into Wine?*, 8, 14, 20). Christine Overall objects that such descriptions are an "inappropriate anthropomorphism with respect to the natural world" because "[i]n these descriptions, 'nature' is implicitly represented as a fallible person, one who is usually in control of what happens in physical reality, but whose will can be overcome or overridden by a being with superior, indeed transcendent powers" (Christine Overall, "Miracles and God: A Reply to Robert A. H. Larmer," *Dialogue* 36 [1997]: 743). Larmer quite correctly replies that Overall's objection seems weak. According to Larmer, "There appears no difficulty in speaking of the overriding of a physical process or system without conceiving such a process or system anthropomorphically. When, for example, I talk of overriding the draft system on my wood boiler, I am under no misapprehension that the boiler should be described as a fallible person." (Robert Larmer, "Miracles, Evidence, and God," *Dialogue* 42 [2003]: 108-109.) Overall, to her credit, sees that her objection is in fact weak (Christine Overall, "Miracles and Larmer," *Dialogue* 42 [2003]: 124). However, Overall goes on to object that Larmer's use of "overriding" shows Larmer thinks "that natural laws are akin to human laws, and that God is the supreme lawgiver" and this, Overall believes, causes Larmer to commit the fallacy of *petitio principii* in his miracle definition (Overall, "Miracles and Larmer," 124-125). According to Overall, "Larmer's definition assumes that God creates natural laws in the first place, and so God can override them," but "[w]hether natural laws are given by a transcendent agency is precisely part of the point at issue" (Overall, "Miracles and Larmer," 125). In view of the fact that Larmer's sense of "override" does not involve any change to or violation of the laws of nature themselves, and in view of the fact that Larmer allows for miracles to be performed by beings who did not create the laws (e.g., angels), whether or not the laws were created in the first place by the overrider seems wholly irrelevant to the issue of conceptualizing miracle.

The thesis that a miracle should not be understood as a violation of a law of nature will be defended in sections IV-C-2 and IV-C-3 of this chapter. The thesis that a miracle need not be understood as caused only by God will be discussed in section IV-D of this chapter. The objection that making an appeal to a miracle -- defined as supernaturally caused -- as evidence for supernatural intelligent causal intervention commits the question-begging fallacy will be discussed in section IV-C-2 of chapter 5.

⁹⁹Larmer, *Water into Wine?*, 10.

¹⁰⁰Larmer, *Water into Wine?*, 11.

occasion" to guarantee a religious doctrine or claim.¹⁰¹

IV. A Refined Philosophical Definition

To refine our understanding of the direct supernatural intervention apparently involved in Jesus' virgin birth and resurrection, an understanding which gleans insights from the previous discussions, in this section a slightly different definition of miracle will be set out. Then the main components of this definition will be examined and defended. First, though, a brief overview of the previous senses of miracle will be set out, to help achieve clarity.

A. Senses of miracle excluded (bracketed) here

Miracle, Sense 1: The word "miracle" is used merely to express an observer's subjective reaction (surprise, astonishment) to an event that is unexpected yet beneficial (e.g., winning a prize in a contest). Such events are easily explained on naturalistic grounds, as happy coincidence. For the religious believer, even though the event is easily explainable on naturalistic grounds, it might be interpreted as due to God's providential care via the likes of Augustinian "seeds" (especially if the event occurs as an apparent answer to prayer).

Miracle, Sense 2: The word "miracle" is used hyperbolically to express an observer's positive reaction to a not wholly unusual natural event that is expected yet, because of the event's complexity and mystery, is considered marvelous (e.g., childbirth).

Miracle, Sense 3: An event is a miracle if and only if it is an event that is uncaused and therefore

¹⁰¹Larmer, *Water into Wine?*, 11.

inexplicable (e.g., quantum particles "popping" into existence).

Miracle, Sense 4: An event is a miracle if and only if (1) it is an event that is extraordinary or unusual with respect to the regular course of nature, an extraordinariness or unusualness which consists of a contrast to the usual course of nature; (2) it is an event that wholly involves natural principles in operation in already existing matter/energy to transform that matter/energy; (3) it is an event produced by a tapping into generally unknown natural principles to manipulate already existing matter/energy by some agent (whether human or supernatural) who has a superior knowledge and/or ability; and (4) it is a religiously significant event. Some possible examples of the third sense of miracle are Jesus' healing of a woman with a bleeding disorder, Jesus' raising of Lazarus back to life, God's parting of the Jordan River, God's protection of the three young men in a fiery furnace.

Miracle, Sense 5: An event is a miracle if and only if (1) it is an event that is extraordinary or unusual with respect to the regular course of nature, an extraordinariness or unusualness which consists of a contrast to the usual course of nature arising from its being beyond the capacity of unaided nature to produce either at all or via the natural causes at the scene of the miracle's occurrence; (2) it is an event that consists of a correlation of a creation with an annihilation of complex specifically-structured matter/energy; (3) it is directly caused by a very powerful, intelligent, and nature-transcending causal source of matter/energy, i.e., God or a God-like being; (4) it is a religiously significant event. An example of the fifth sense of miracle is the healing of a leper, a healing in which dead/ rotten flesh is annihilated and, concurrently, new healthy flesh is created. It may actually be the case, as Larmer thinks, that sense 4 miracles, i.e., the particular events listed as sense 4 miracles, are to be understood in terms of sense 5 miracles. (The question of whether they are or not, will be left unanswered in this dissertation.) It may also be the case that sense 4 miracles and sense 5 miracles overlap somewhat when, say, a transformation of already existing matter/energy occurs along side of a creation/annihilation of matter/energy.

B. The sense of miracle of interest here

The following is a definition of miracle which is of primary interest in this dissertation, and which gleans insights from the previous discussions of miracle yet differs from the above five senses of miracle in small but important ways.

Miracle, Sense 6: An event is a miracle if and only if (1) it is an event that is extraordinary or unusual with respect to the regular course of nature in the sense that the event's occurrence is wholly beyond nature's capacity to produce; (2) it is an event that consists of an introduction or coming into being of complex specifically structured matter/energy; (3) it is directly caused by a very powerful, intelligent, and nature-transcending causal source of matter/energy, i.e., God or a God-like being; and (4) it is religiously significant.

It is the contention of this dissertation that the primary examples of this sixth sense of miracle are Jesus' virgin birth and Jesus' resurrection.¹⁰² In Jesus' virgin birth, it seems to be the case that matter/energy is created to provide a wholly new embryo (fertilized ovum) in Mary's uterus or, if Mary's ovum was used, to provide a wholly new physical structure to function as human sperm. In Jesus' resurrection, it seems to be the case that matter/energy is created to provide new, "high-powered" flesh in Jesus' resurrected body. Jesus was dead for only a short time, so it will be assumed that there is no need to annihilate thoroughly rotten flesh as in the case of a leper's healing. (Reports of the risen Jesus include unhealed nail holes to his hands and an unhealed spear hole to his chest.¹⁰³) However, if there were such rotten flesh, it may have been simply "shed" as new matter/energy was created. (Such a shedding may not be without precedent in the New Testament miracles. When the apostle Paul was healed of blindness "there fell from his eyes something like scales."¹⁰⁴)

¹⁰²Another example of the sixth sense of miracle is Jesus' multiplication of a few loaves of bread and a few fish into enough bread and fish to feed several thousand people plus have leftovers (Matthew 14:13-21 and 15:29-39).

¹⁰³See John 20:27.

¹⁰⁴Acts 9:18 NASB. Some theologians might object on the basis of some Scriptures (e.g., Acts 2: 24-27) that God would not let Jesus' dead body "decay," so there could be no such shedding of deteriorated flesh. It seems that such an objection takes "decay" too stringently. It is reasonable to think that God will not allow

Both Jesus' virgin birth and Jesus' resurrection are extraordinary relative to the regular course of nature, i.e., their occurrence stands in contrast with the regular course of nature, in the sense that they seem very much to be beyond the capacity of an unaided nature to produce at all; moreover, they involve an introduction of complex specifically structured matter/energy. As such, they violate the prediction of the relevant physical laws (e.g., that the impregnation of a woman does not occur without human sperm or a medical doctor's help, and that dead people, when left on their own, do not resurrect), assuming the usual physical initial conditions and assuming no interference (whether natural or supernatural); but they do not violate the relevant laws *per se*, as will be made more clear (in section IV-C-3). Also, both Jesus' virgin birth and Jesus' resurrection seem best understood as directly caused by a very powerful, intelligent, and nature-transcending causal source of matter/energy, i.e., God or a God-like being, a thesis that will be investigated further below (in section IV-D-1&2). Also, both Jesus' virgin birth and Jesus' resurrection are religiously significant in broad and narrow senses, as has been to some extent seen already. What has not been clearly seen in our previous discussions, though it has been lurking in the background of our biblical discussion of miracles, is that the religious significance of these miracles logically entails the thesis that intelligent human beings have objective moral value. This last point will be further argued below too (in section IV-E-1&2).¹⁰⁵

In what follows, the sixth conception of miracle will be clarified, and certain aspects of this definition will be emphasized. These aspects, as mentioned in the introduction to this dissertation and as mentioned in the introduction to this chapter, will serve as pointers to clues in the world which, in themselves, and in their being pointed to, enhance the plausibility of miracles (sense 6).

Jesus' body to *wholly* decompose, yet allow His body to deteriorate *to some extent*. Surely, even Jesus lost decayed skin cells during His life.

It is readily acknowledged here that we are not privy to what is going on in the cases of Jesus' virgin birth and resurrection as, say, we are not privy to what actually goes on in universe formation. Nonetheless, even though there is lots that we do not know, we try to figure things out, admitting our limitations.

¹⁰⁵This logical implication seems also to result from the religious significance of miracle sense 5 and miracle sense 4. It is the view in this dissertation that the above logical implication is clearest in the miracles of Jesus' resurrection and virgin birth, i.e., miracle sense 6.

C. Conditions Number One & Number Two

1. Conditions One & Two Considered (Introduction)

As mentioned above, our first and second conditions of miracle state the following: (1) a miracle is an event that is extraordinary or unusual relative to the regular course of nature in the sense that the event's occurrence is wholly beyond nature's capacity to produce; and (2) a miracle is an event that consists of an introduction or coming into being of complex specifically structured matter/energy.¹⁰⁶ This is to say, contrary to Hume, that a miracle is not a "violation" or breaking of an actual law of nature.¹⁰⁷ Because the concept of miracle as a violation of one or more of nature's laws *per se* has become quite acceptable since Hume (several contemporary adherents to the violation thesis are Francis Beckwith, Chris Horner, J. L. Mackie, Christine Overall, Louis Pojman, Michael Ruse, Ninian Smart, Richard Swinburne, Nigel Warburton, Emrys Westacott¹⁰⁸), and because the violation concept of miracle makes science and miracles seem incompatible

¹⁰⁶This is not to say that non-physical miracles (the caused by God, coming into being of religiously significant spiritual beings) cannot occur; this condition merely limits the miracles of interest in this dissertation to those that are physical or have a physical component.

¹⁰⁷Hume, *Enquiry*, 115n.

¹⁰⁸See: Beckwith, *David Hume's Argument Against Miracles*, 7-11 & 30-32; Chris Horner & Emrys Westacott, *Thinking Through Philosophy: An Introduction* (Cambridge: Cambridge University Press, 2000), 239; J. L. Mackie, *The Miracle of Theism: Arguments For and Against the Existence of God* (Oxford: Clarendon Press, 1982), 19; Christine Overall, "Miracles As Evidence against the Existence of God," *The Southern Journal of Philosophy* 23:3 (1985): 347-353; Christine Overall, "Miracles and God: A Reply to Robert A. H. Larmer," *Dialogue* 36 (1997): 741-752; Louis P. Pojman, *Philosophy of Religion* (Mountain View, California: Mayfield Publishing Company, 2001), chapter 7; Michael Ruse, *Can a Darwinian be a Christian? The Relationship Between Science and Religion* (Cambridge: Cambridge University Press, 2001), 95 & 97; Ninian Smart, *Philosophers and Religious Truth* (London: SCM Press, 1964), chapter 2; Swinburne, *The Concept of Miracle*, chapter 3; Nigel Warburton, *Philosophy: The Basics*, 2nd edition (London: Routledge, 1995), 27.

Note: Overall has changed her definition of miracle from a violation of a law of nature to a "break in the space-time causal sequence" (Christine Overall, "Miracles and Larmer," *Dialogue* 42 [2003]: 127). In view of the definition set out in this dissertation, Overall's new concept of miracle seems to take a step in the right direction, but does not go far enough. Overall's definition seems to be merely a necessary condition of miracle sense 6 in that her definition can be understood as covered by conditions #1 and #2 of miracle sense 6. For example, Mary's supernatural impregnation is a break in the space-time causal sequence in the sense that it is wholly beyond nature's capacity to produce and it consists of an introduction or coming into being

(with miracles being the loser), in this section it will be shown that to account for the extraordinariness of a miracle the violation concept of miracle should be rejected and the introduction of matter/energy concept of miracle is to be preferred.¹⁰⁹

2. The Absurdity of the Violation Concept of Miracle

Laws of nature, as they occur in the physical sciences, are true statements which account for nature's regularities and tendencies. According to Michael Martin, "philosophers of science have commonly understood such laws [i.e., the laws of nature]" as "true universal statements . . ."¹¹⁰ Although this view of the laws of nature is relatively uncontroversial, it should be acknowledged that some prominent philosophers of science -- e.g., Ronald Giere -- disagree.¹¹¹ Giere argues against the existence of what is commonly understood as laws and holds, instead, that we have "restricted generalizations" concerning various systems

of complex specifically-structured matter/energy. But it is also more. It is caused by a supernatural cause and it has religious significance.

¹⁰⁹Larmer agrees that the violation concept of miracle should be rejected because he thinks that such an idea is false (Larmer, *Water into Wine?*, 18). Although Larmer sets out a solid case for conceiving miracles as the creation and/or annihilation of matter/energy without violating any laws of nature (a case that will be incorporated in this dissertation), Larmer does not *show* that the violation concept of miracle should be rejected as false. He seems to think that setting out a positive case for conceiving miracles as the creation and/or annihilation of matter/energy provides sufficient grounds to "dismiss as irrelevant the question of whether it makes sense to talk of violation of the laws of nature" (Larmer, *Water into Wine?*, 18). Larmer seems mistaken in this. As in any case of making a choice between competing explanations or conceptualizations, it seems that the case for Larmer's conception of miracles would be strengthened if it were to be *shown* that its main competitor -- the violation concept -- is *in fact* seriously problematic. Hence, it will be argued in the next section that the violation concept is logically problematic.

¹¹⁰Michael Martin, *Atheism: A Philosophical Justification* (Philadelphia: Temple University Press, 1990), 190. The statements are true of the world directly (e.g., "All dead people decay irreversibly") or indirectly via our models of aspects of the world (e.g., Newton's laws of motion), when the statements are applied *ceteris paribus*, "other things being equal."

¹¹¹Ronald N. Giere, *Science Without Laws, Science and Its Conceptual Foundations*, series edited by David L. Hull (Chicago & London: University of Chicago Press, 1999), chapter 5.

that can be represented by a particular model.¹¹² According to Giere, "Restricted generalizations have not the form of a universal statement plus a proviso, but of a conjunction listing the systems, or kinds of systems, that may successfully be modeled using the theoretical resources in question."¹¹³ Giere may be correct in this, but it still seems reasonable to think that a law can be construed as a universal statement *within the restricted generalization*, that is, within the sphere to which the model applies or "fits", with the proviso that it applies/fits when there is no external interference. Of course, if Giere is right that there are no laws whatsoever, then the violation of law concept of miracle should be abandoned without further argument. In this dissertation, then, laws of nature will be understood to be true statements which account for nature's regularities and tendencies.

Stephen Bilynskyj and William Lane Craig point out that in contemporary science there are three major theories to account for laws of nature: (1) the regularity theory, (2) the nomic necessity theory, and (3) the causal dispositions theory.¹¹⁴ It should be noted that Bilynskyj and Craig's classification is not the only classification possible. However, for the purpose of this dissertation the Bilynskyj-Craig classification seems more helpful than its main competitor, since its main competitor -- Rom Harré's classification -- is easily translated into it and seems not as helpful where not so easily translated into it. Harré sets out a broad classification of laws of nature on historical grounds.¹¹⁵ In Harré's scheme, regularity theory is labeled

¹¹²Giere, *Science Without Laws*, 93.

¹¹³Giere, *Science Without Laws*, 93.

¹¹⁴Stephen S. Bilynskyj, "God, Nature, and the Concept of Miracle" (Ph.D. dissertation, University of Notre Dame, 1982); and William Lane Craig, *Reasonable Faith: Christian Truth and Apologetics* (Wheaton, Illinois: Crossway Books, 1994), 143-144. See too William Lane Craig, "Creation, Providence and Miracles," in *Philosophy of Religion: A Guide to the Subject*, edited by Brian Davies (Washington, D.C.: Georgetown University Press, 1998), 152ff.

¹¹⁵Rom Harré, "Laws of Nature," in *A Companion to the Philosophy of Science*, edited by William Newton-Smith, Blackwell Companions to Philosophy (Malden, Massachusetts: Blackwell Publishers, 2000), 213-223.

"summaries of experience" and causal dispositions theory is labeled "descriptions of natural tendencies."¹¹⁶ Instead of the nomic necessity theory, Harré has a category titled "Laws of nature as expressing relations among concepts."¹¹⁷ Although this category is interesting from an historical point of view, it will not be set out here for two reasons. First, an updated version of it will be examined in a discussion of the causal dispositions theory where descriptions of essences and their relations are of the world (*de re*) rather than merely conceptual relations (*de dicto*). Second, suffice it to say here that under a "conceptualist analysis" of the laws of nature it is obvious that a violation would be logically contradictory. Lewis underscores this second point aptly when he describes the conceptualist thesis in terms of the proposition "[t]hat the fundamental laws of Physics are really what we call 'necessary truths' like the truths of mathematics," and then quickly adds: "in other words, ... if we clearly understand what we are saying we shall see that the opposite would be meaningless nonsense."¹¹⁸ The Bilynskyj-Craig classification of major theories of natural law will be followed in this chapter, then. As will be shown, on each major theory in this classification it is logically absurd to construe a miracle as a violation of a law of nature.

It should be emphasized that the purpose of this section is not to arbitrate between these theories to determine which is best. The purpose of this section is much more modest. It is, rather, merely to show that a miracle should on all the major contemporary accounts of laws of nature *not* be construed as a violation of a law of nature. (Nevertheless, some comments concerning the major difficulties and strengths of these accounts, which in the end point to the causal dispositions theory as the apparently superior theory, will be presented in the footnotes. These footnoted comments will not overturn C. A. Hooker's verdict that "There

¹¹⁶Harré, "Laws of Nature," 216, 218.

¹¹⁷Harré, "Laws of Nature," 215.

¹¹⁸Lewis, *Miracles*, 76. For more on Harré's category "Laws of nature as expressing relations among concepts," see Harré, "Laws of Nature," 215-216.

is no uncontroversial theory of laws: all face difficulties."¹¹⁹)

(a) Regularity Theory

According to Martin Curd and J. A. Cover, regularity theory (a theory promulgated by Hume and Humean-inclined scientists and philosophers) holds that "laws [of nature] describe the ways things actually behave, that they are nothing more than a special kind of descriptive summary of what has happened and what will happen."¹²⁰ On this theory, adds Bilynskyj, "laws of nature state only universal regularities of events and . . . they assert no sort of connection between events."¹²¹ According to regularity theory, a law of nature is simply a universal generalization made on the basis of, and summarily descriptive of, what happens in nature. But if this is the case, as Craig correctly points out, "it follows that no event which occurs can violate such a law."¹²² Craig adds: "The law cannot be violated because it just describes in a certain generalized form everything that does happen in nature."¹²³ So on the violation definition of miracle, for there to be a miracle requires that it is a violation of a law of nature, yet for there to be a law of nature requires that there be *no* violations -- but this means that if there is a miracle then there is not a miracle, which is a contradiction. Alastair McKinnon very helpfully clarifies as follows:

¹¹⁹C. A. Hooker, "Laws, Natural," in *Routledge Encyclopedia of Philosophy*, edited by Edward Craig (London & New York: Routledge, 1998), 474.

¹²⁰Martin Curd & J. A. Cover, *Philosophy of Science: The Central Issues* (New York: W. W. Norton & Company, 1998), 805. Curd and Cover include in their list of regularity theorists (of different stripes) the following names: A. J. Ayer, R. B. Braithwaite, Rudolf Carnap, Richard Feynman, Carl Hempel, Ernest Nagel, Hans Reichenbach, Norman Swartz, and Peter Urbach (Curd & Cover, *Philosophy of Science*, 807).

Recall from a previous note that Wright holds that Hume may have held to a realist view of laws of nature. Regardless of whether natural laws are real or not for Hume, here we will take the skeptical view of Hume as it has manifested itself in the regularity theory of laws of nature.

¹²¹Bilynskyj, "God, Nature, and the Concept of Miracle," 14.

¹²²Craig, *Reasonable Faith*, 143.

¹²³Craig, *Reasonable Faith*, 143.

The idea of a suspension of natural law is self-contradictory. . . . The contradiction may stand out more clearly if for *natural law* we substitute the expression *the actual course of events*. *Miracle* would then be defined as "an event involving the suspension of the actual course of events." And someone who insisted on describing an event as a miracle would be in the rather odd position of claiming that its occurrence was contrary to the actual course of events.¹²⁴

Cover puts the matter this way:

A law of nature is a true universal generalization of the form "All Fs are Gs" or "All so-and-sos do such-and-such." This is the standard account of a law of nature. Hence, anything that is a genuine law of nature has *no exceptions*, no counterinstances: if it really is a law of nature that all Fs are Gs, then there cannot be an F that is not a G. But a miracle is by definition a violation of a law of nature [i.e., an F that is not a G, a so-and-so that doesn't do such-and-such].¹²⁵

At this juncture, one might point out that many laws of nature are statistical, not universal, and so the possibility of violation remains. According to Mary Hesse, "statistical laws in science are in fact regarded as violated if events occur which according to them [the laws] are excessively improbable"¹²⁶ Swinburne, too, holds that it is logically coherent to think that statistical laws can be violated.¹²⁷ Hesse and Swinburne seem to be mistaken, however. A statistical law, as Swinburne correctly points out, "is a law of the form 'n% of so-and-sos do such-and-such'."¹²⁸ Significantly, though, this means that (to echo Cover's argument above) if it really is a law of nature that, say, 90% of Fs are Gs, then there cannot be, say, 50% of Fs that are not Gs. But

¹²⁴Alastair McKinnon, "'Miracle' and 'Paradox,'" *American Philosophical Quarterly* 4 (October 1967), 309. Antony Flew, like McKinnon, thinks that the idea of a law of nature being violated is logically "scandalous" (Antony Flew, *God and Philosophy* [London: Hutchinson, 1966], 148-149).

¹²⁵J. A. Cover, "Miracles and (Christian) Theism," in *Philosophy of Religion: The Big Questions*, edited by Eleonore Stump & Michael J. Murray, *Philosophy: The Big Questions*, series edited by James P. Sterba (Malden, Massachusetts & Oxford, England: Blackwell Publishers Ltd., 1999), 340-341.

¹²⁶Mary Hesse, "Miracles and the Laws of Nature," in *Miracles: Cambridge Studies in their Philosophy and History*, edited by C. F. D. Moule (London: A. R. Mowbray & Co. Ltd., 1965), 38.

¹²⁷Swinburne, *The Concept of Miracle*, 30-31.

¹²⁸Swinburne, *The Concept of Miracle*, 30.

a miracle is by definition a violation of a law of nature, e.g., 50% of Fs that are not Gs. So, if there is a miracle, then there cannot be a relevant law, yet on the violation-of-law concept of miracle the concept of miracle logically requires that law. Hence, the logical problem seems to remain.

To be fair to Swinburne and Hesse, it may be the case that the Fs of which 50% are not Gs come from an *unrepresentative sample* of Fs, and so there is a case of what Swinburne later describes as a "quasi-violation."¹²⁹ In this way the logical problem would seem to be circumvented. However, the fact remains that if miracle is conceived as a *bona fide* violation, i.e., a miracle is defined as a real violation of an *actual* law (not merely a scientific law or approximation of an actual law), then the logical problem is *not* circumvented.

On the regularity theory, then, it is logically absurd to construe a miracle as a violation of a law of nature.¹³⁰

¹²⁹Richard Swinburne, *The Existence of God*, revised edition (Oxford & New York: Clarendon Press, 1991), 232.

¹³⁰It should be noted here that the regularity theory is a seriously problematic account of the laws of nature. Regularity theory has difficulty justifying the universality of the generalization and the very apparent extra-logical, natural necessity of causal processes. Why should the course of nature remain the same for a universal to hold? (Enter Hume's problem of induction.) Also: Is there not something about nature itself whose processes consist of genuine causal relations in contrast with merely accidental regularities? (Hume's claim that we psychologically project necessity onto the world is unsatisfactory, since clearly not all regularities point to genuine laws of nature. As an example of this, Cover suggests the possible experience of all dogs born at sea being Labrador retrievers and the silliness of consequently believing "if my beagle were to have pups at sea, they would be labrador [*sic*] retrievers." [Cover, "Miracles and (Christian) Theism," 343.]) But perhaps, if God exists -- and if we emphasize God's sovereignty in a particular way -- the relationship between God and nature is such that our statements of the laws of nature are but a record of God's activity in the physical universe, which is to say that there are no efficient causes other than God, which is also to say that occasionalism reigns. If God exists and if the relationship between God and nature is as described above, the result would seem to be that we would have a justification of the universality of the laws of nature and their apparent necessity: namely, God's ongoing will. This "no-nature" view, however, has some serious problems. Bilynskyj, following Aquinas, points out three such problems. First, this view is contrary to our common sense experience of physical causes (Bilynskyj, "God, Nature, and the Concept of Miracle," 86). Clearly, our experience is not merely of patterns of events; many of the things we experience have causal properties (Harré, "Laws of Nature," 218-219). Second, this view is contrary to reason, which very apparently reveals structures in the physical world which seem clearly related to the behaviours and powers of those things having the structures (Bilynskyj, "God, Nature, and the Concept of Miracle," 97). Third, this view does not take seriously the Scripture of Judaism, Christianity, and Islam calling the creation "good" (Genesis 1:31), which seems to suggest that God has bestowed upon the creation the power to act in an ordered fashion (Bilynskyj, "God, Nature, and the Concept of Miracle," 97-99). (For a more general refutation of the "no-nature" view on the

(b) Nomic Necessity Theory

According to the nomic necessity theory, laws of nature do not merely state universal regularities of events, they also assert a necessity between events. This necessity is not a *logical* necessity; it is a physical necessity that is weaker than logical necessity yet stronger than logical contingency. Craig describes a physically necessary event as an event that is "naturally inevitable"¹³¹ Unlike on regularity theory, on nomic necessity theory a law of nature is not simply a universal generalization made on the basis of what occurs in nature, it is a universal generalization that goes beyond the actual course of events to support counterfactual conditionals (i.e., what *would* happen *if* so-and-so were the case). But, again, the violation view of miracle is rendered seriously problematic. As Bilynskyj points out, "the condition that laws of nature are universal generalizations about events [also] makes violations impossible on the [nomic] necessitarian view."¹³² No event which occurs -- or would occur, if the conditions were appropriate -- can or could violate such a law. The law cannot be violated because it describes and prescribes in a universally generalized form everything that does and will happen in nature if the conditions are right. As Craig points out, "So long as natural laws are *universal* generalizations based on experience, they must take account of anything that happens and so

basis of the biblical texts, see C. John Collins, *The God of Miracles: An Exegetical Examination of God's Action in the World* [Wheaton, Illinois: Crossway Books, 2000], chapters 4-7.)

For more on occasionalism, see R. Hooykaas, *Religion and the Rise of Modern Science* (Edinburgh: Scottish Academic Press, 1972), 16-28. Hooykaas presents Sebastian Basso, Robert Boyle, Nicolas Malebranche and George Berkeley as representatives (to varying degrees) of the occasionalist view. On occasionalism, see too: Robert Merrihew Adams, "Miracles, Laws of Nature and Causation," *Proceedings of the Aristotelian Society*, Supplementary Volume 46 (1992), 207-224, especially 213-217; and Alfred Freddoso, "Medieval Aristotelianism and the Case Against Secondary Causation in Nature," in *Divine and Human Action: Essays in the Metaphysics of Theism*, edited by Thomas V. Morris (Ithaca & London: Cornell University Press, 1988), 74-118.

¹³¹Craig, *Reasonable Faith*, 144. Curd and Cover include in their list of necessity theorists (of different stripes) the following names: D. M. Armstrong, John Bigelow, John Carroll, Fred Dretske, W. C. Kneale, Christopher Swoyer, and Michael Tooley (Curd & Cover, *Philosophy of Science*, 807; see Curd & Cover for further bibliographical detail).

¹³²Bilynskyj, "God, Nature, and the Concept of Miracle," 35.

would be revised should an event occur which the law does not encompass."¹³³ In other words, laws have (as was footnoted earlier) an implicit *ceteris paribus* clause, which logically implies that for a law to be interfered with or violated is ruled out at the start. Thus, the contradiction that comes to the fore in the case of regularity theory comes to the fore too in the case of nomic necessity theory: on the violation definition of miracle, for there to be a miracle requires that it is a violation of a law of nature, yet for there to be a law of nature requires that there be *no* violations -- but this means that if there is a miracle then there is not a miracle, which is a contradiction.

Nevertheless, Swinburne (as was pointed out above) holds to the violation concept of miracle. Swinburne takes a miracle to be "a non-repeatable counter-instance to a law of nature."¹³⁴ He also points out that we "must . . . distinguish between a formula being a law *and* a formula being (universally) true or being a law which holds without exception."¹³⁵ That is, we must distinguish between a law and its applicability, i.e., the law and the sum total of its instances. And so, Swinburne argues, if we take law in the first sense, as a formula only, then a miraculous event *can* be incompatible with -- i.e., violate -- a law of nature yet not make that law cease to be a law. Swinburne seems to buttress this position with the claim that when in scientific practice ("talk") a non-repeatable anomalous event occurs, such an exception is not taken to falsify any relevant law.¹³⁶ Hence, or so Swinburne would have us think, the violation concept of miracle *is* logically coherent.¹³⁷

Swinburne's case is seriously problematic, however. The fact remains that the *formula* Swinburne distinguishes is still a *law*; and because it is a law it still is a universal (or statistical) generalization about

¹³³Craig, "Creation, Providence and Miracles," 153.

¹³⁴Swinburne, *The Concept of Miracle*, 26.

¹³⁵Swinburne, *The Concept of Miracle*, 28.

¹³⁶Swinburne, *The Concept of Miracle*, 28.

¹³⁷Swinburne continues to hold this view in his more recent work. See Richard Swinburne, *The Resurrection of God Incarnate* (Oxford & New York: Clarendon Press, 2003), 17-23.

events; and because it is a universal generalization about events it will be falsified by a nonrepeatable counterinstance (or because it is a statistical generalization about events it will be falsified by the appropriate percentage of counterinstances to constitute a violation). In other words, as Curd points out, "[Swinburne] is proposing that 'All A's are B' is a genuine law even though there is a nonrepeatable instance of an A that is not B. But this is logically impossible: if 'All A's are B' is a genuine law then *all* A's are B without exception."¹³⁸ Curd adds:

At best what Swinburne has described [in proposing that 'All A's are B' is a genuine law even though there is a nonrepeatable instance of an A that is not B] is a set of possible circumstances in which we might decide to call a universal generalization "a law of nature" despite our knowledge that it is false if we also believed that it could never be replaced with anything better. But the possibility of a change in our linguistic habits does not amount to a demonstration that laws of nature can have counterinstances given the *current* meaning of

¹³⁸Martin Curd, "Miracles as Violations of Laws of Nature," in *Faith, Freedom, and Rationality: Philosophy of Religion Today*, edited by Jeff Jordan (Lanham, Maryland: Rowman & Littlefield, 1996), 182.

It may be tempting to think that there are some problems having to do with the practice of falsifiability which are readily transferrable to the above claim that the formula Swinburne distinguishes is still a *law*, and as a law it still is a universal generalization about events, and as such it will be falsified by a non-repeatable counter-instance. One might argue that no law or hypothesis is ever actually falsifiable because the observational consequences to be tested are deduced not from the hypothesis alone, but from the hypothesis *plus* the assistance of auxiliary hypotheses and other theories. To illustrate this problem, we can set out the experimental relationship as follows, where H is our hypothesis and A1-An are various auxiliary hypotheses and theories, and where O is an observational consequence, which is shown to be false (cf. James Ladyman, *Understanding Philosophy of Science* [London & New York: Routledge, 2002], 77-81):

$$\begin{array}{r} (H \ \& \ A1 \ \& \ A2 \ \& \ A3 \ \& \ A4 \ \dots \ An) \supset O \\ \hline \neg O \\ \hline \neg (H \ \& \ A1 \ \& \ A2 \ \& \ A3 \ \& \ A4 \ \dots \ An) \end{array}$$

Since no theory can be conclusively verified (since theories are underdetermined), the possibility remains that any one or more of the conjuncts A1-An could be false. But this means that we cannot conclusively determine that H is false. Hence, contrary to my position above, we cannot conclusively determine that in Swinburne's account law is falsified.

It should be noted, however, that this problem is a *practical* difficulty, not a *conceptual* or *definitional* difficulty. The difficulty arising from the practice of falsifiability has to do with isolating the hypothesis from the auxiliary statements by conclusively showing that each of these auxiliary statements is true. This difficulty, though, is irrelevant to the conceptual issue. The fact remains, then, that -- conceptually -- we can legitimately say that a non-repeatable counterinstance falsifies a universal generalization about events. (The above discussion, with proper adjustments, applies to statistical laws as well.)

those terms.¹³⁹

Also, Swinburne seems not to realize that in science the practice of not abandoning a law of nature in the face of an anomalous event is motivated not by the apparent logical coherence of the notion of a nonrepeatable violation of a law of nature but by the assumption that further scientific investigation will show not only that the anomalous event can be explained away but also that the law (or some other law) is true.¹⁴⁰ Moreover, Swinburne's construal of a miracle as a nonrepeatable occurrence runs into difficulty. As Michael Martin rightly points out,

[T]here is no *a priori* reason why a miracle cannot be repeated numerous times. For example, it is not logically impossible for a miracle worker to bring many people back to life. Indeed, so-called faith healers such as W. V. Grant and Oral Roberts have allegedly brought about numerous miracles of the same type.¹⁴¹

Also, as Leibniz astutely observed (much earlier than Martin),

[I]t seems to me that the concept of the miracle does not consist of rarity. . . . I believe that God can make general rules for himself in respect even of miracles; for example, if God had decided to bestow his grace immediately or to carry out another action of that kind every time that a certain circumstance occurred, this action would nevertheless be a miracle, albeit an

¹³⁹Curd, "Miracles as Violations of Laws of Nature," 182.

¹⁴⁰David Basinger and Randall Basinger agree that Swinburne's view that a miracle is a violation of natural law is incorrect. However, they do not dismiss the idea of a (mere) violation of a natural law entirely. Basinger and Basinger hold that in and only in the (hypothetical) case that a non-repeatable event E actually occurs, it makes sense "for *practical purposes*" to have a violation, if we "assume that L is a set of very well-established laws and that no other set of laws can be found which can accommodate this phenomenon and is equally simple and useful" (David Basinger & Randall Basinger, *Philosophy and Miracle: The Contemporary Debate*, Problems in Contemporary Philosophy, Volume 2 [Lewiston & Queenston: The Edwin Mellen Press, 1986], 13-14). It would seem that there may be some sense in this for practical purposes. It seems sensible for the "violation" label to be a *temporary* label useful to scientists as they attempt to show that the anomalous event can be explained in such a way that there is no violation, that is, in such a way that the law in question, or some other law, is true. Nevertheless, if L consists of *true* laws of nature, then a violation of such a law runs into logical difficulty.

¹⁴¹Martin, *Atheism: A Philosophical Justification*, 190.

ordinary one.¹⁴²

Swinburne's defence of the violation view of miracle, then, seems very much to fail.¹⁴³

(c) Causal Dispositions Theory

Craig sets out the causal dispositions theory very aptly and succinctly as follows: “[T]hings in the world have different natures or essences, which include their causal dispositions to affect other things in certain ways, and natural laws are metaphysically necessary truths about what causal dispositions are possessed by various natural kinds of things.”¹⁴⁴ The idea is that a thing possesses natural tendencies or powers that are due to what that thing is, and a law of nature expresses those powers. If some substance S were, say, a bit of sodium chloride (salt), then, by definition, S would have the structure -- “electronic architecture,” per Harré¹⁴⁵ -- to dispose it to react with water in a particular way (i.e., dissolve), *ceteris paribus*. The natural law

¹⁴²G. W. Leibniz, Letter 20 from Leibniz to Antoine Arnauld, in *The Leibniz-Arnauld Correspondence*, edited & translated by H. T. Mason (New York & Manchester: Barnes & Noble/ Manchester University Press, 1967), 116.

¹⁴³The nomic necessity theory is a better theory than the regularity theory because it is sensitive to nature's necessity and the need for laws to support counterfactuals. Nevertheless, like regularity theory, it has difficulty justifying the universality of the generalization and the very apparent extra-logical, natural necessity of causal processes. It is reasonable to ask (as we asked of regularity theory): Why should the course of nature remain the same for a universal to hold? Also, it should be noted that merely asserting the existence of necessity does not explain its existence. Of course, if God exists -- and if we (again) emphasize God's sovereignty -- it is possible that the relationship between God and nature is such that our statements of the laws of nature are but a record of God's activity in the physical universe, which is to say (again) that there are no efficient causes other than God, which is to say (again) that occasionalism reigns. If God exists and if the relationship between God and nature is as described above, the result would again seem to be that we would have a justification of the universality of the laws of nature and their apparent necessity: namely, God's ongoing will. This “no-nature” view, however, has the same serious problems that were described in the footnote at the end of the discussion of regularity theory. Our common sense plus philosophical reasons plus the Scriptures seem very much to point to the existence of a creation which has its own efficient, or secondary, causality.

¹⁴⁴Craig, *Reasonable Faith*, 144. See also Harré's description of “Laws as descriptions of natural tendencies” (Harré, “Laws of Nature,” 218-221). In his list of dispositionalists (of various stripes), Harré includes E. H. Madden, R. Bhaskar, N. Cartwright, and himself (Harré, 218).

¹⁴⁵Harré, “Laws of Nature,” 220.

concerning sodium chloride states that sodium chloride has a disposition to dissolve in water. Recall Cover's relevant standard form of a natural law: all so-and-sos do such-and-such. If our S is a so-and-so (sodium chloride), then S will do such-and-such (dissolve in water), *ceteris paribus* (all other things being equal, no other things interfering). Now, we need to ask: What would it mean to *violate* a causal-dispositions law? In the case of our example, it would mean that the bit of salt S is put in water and it does not dissolve. But herein lies the problem. If S is put in water and -- all other things being equal and no other things interfering -- S does not dissolve, then S is *not* salt. Harré explains: "Sodium must react with water (*ceteris paribus*) because if this sample does not do so, it is not sodium: that is, it does not have that electronic architecture upon which its natural tendency to react with water depends."¹⁴⁶ Dissolving in water, *ceteris paribus*, is a requirement of S to be salt. So, the violation concept of miracle logically requires that S be salt and that S be not salt (at the same time and in the same sense), which is a contradiction. On the causal dispositions theory, then, it is (also) logically absurd to construe a miracle as a violation of a law of nature.

(d) Sub-conclusion

Therefore, on the three major theories of natural law -- regularity theory, nomic necessity theory, and causal dispositions theory -- the violation concept of miracle is logically contradictory and so should be abandoned.¹⁴⁷

¹⁴⁶Harré, "Laws of Nature," 220.

¹⁴⁷Compared to the regularity and nomic necessity theories, the causal dispositions theory seems to be the best theory. On the one hand, the causal dispositions theory seems to be able to justify the natural necessity of causal processes on the basis of the very apparent physical "connection between natural tendencies and defining natures of the things and substances that possess them" (Harré, "Laws of Nature," 220). The causal dispositions theory explains regularities of events in nature not as mere regularities of events which induce us psychologically to project necessity onto the world, but as statements of patterns of dispositions or powers that things in nature actually have because of their structures. Nor does the causal dispositions theory merely assert natural necessity as in the case in the nomic necessity theory. On the other hand, on the causal dispositions theory the universality of the generalization would seem to hold because of the existence of *kinds* of things, whose existence *de re* makes sense of what E. J. Lowe describes as "the willingness of scientists to accept even a single well conducted experiment or observation as virtually conclusive evidence in support of a law" (E. J. Lowe, "Sortal Terms and Natural Laws," *American Philosophical Quarterly* 17

3. The Non-absurdity of the Non-violation Concept of Miracle

If it is logically contradictory -- and, hence, logically impossible -- for a miracle to be a violation of a law of nature, and assuming, quite rightly, that no being, no matter how powerful, can do the logically impossible, then one must either reject miracles or differently construe the definition of miracle.¹⁴⁸ Enter: conditions one and two of our definition of miracle sense 6. Recall that condition one states that a miracle is an event that is extraordinary or unusual with respect to the regular course of nature in the sense that the event's occurrence is wholly beyond nature's capacity to produce. And recall that condition two states that a miracle is an event that consists of an introduction or coming into being of complex specifically structured matter/energy. On this conception of miracle, the extraordinariness of a miracle is due not to a law of nature being violated (which is logically absurd, as we have seen) but to the action of the very powerful, nature-transcending and intelligent causal source of matter/energy. What is the nature of the causal efficacy of this cause's action? Answer: It is to perform the extraordinary feat relative to the regular course of nature, i.e., a feat which occurs in contrast to its unaided capacities, of producing something physical out of the non-physical.

In the following section, it will be shown (with much help from Larmer) that although these first two

[1980], 257). On the regularity theory, a single well-conducted experiment or observation should be but one more tiny bit of experience to be placed alongside all the other bits, without providing those bits with a whole lot more support. On the nomic necessity theory, it would count more because of the asserted relation of necessity; but, as we have seen, this relation of necessity seems to be without justification. Also, the causal dispositions theory seems to do a much better job of handling the relationship between God and nature without resorting to occasionalism and its pitfalls. As noted previously, common sense plus philosophical reasons plus the Scriptures seem very much to point to the existence of a creation which has its own efficient/ secondary causality. The causal dispositions view fits well with this evidence. In addition, on the causal dispositions view God would still be sovereign if God's sovereignty is understood in terms of His being the creator of nature, the conserver of nature, and intimately involved in nature's secondary causality. (Much of the previous discussion is gleaned from Bilynskyj, "God, Nature, and the Concept of Miracle.")

¹⁴⁸For defences of the claim that an all-powerful God cannot do the logically impossible, see: Aquinas, *On the Truth of the Catholic Faith*, 2.25; and C. Wade Savage, "The Paradox of the Stone," *The Philosophical Review* 76 (1967): 74-79. To ask someone to do something that is logically impossible is to ask him/her to do what is not a thing, of the order of blah-blah-blah -- unintelligible nonsense.

components of the definition of miracle ensure that a miracle violates the *prediction* of a natural law, they do not require a violation of the laws of nature *per se*, thereby making the non-violation view (unlike the violation view) reasonable to accept. In the section after the next section, these first two components will be further clarified, for the sake of gleaning pointers.

(a) A defence of the non-violation concept of miracle

That the bringing about of something physical out of the non-physical, a bringing about that is beyond nature's capacities, does not violate nature's laws however construed -- and, hence, is not absurd -- can be seen clearly if we see that such a bringing about is a change to the material conditions to which the laws of nature apply.¹⁴⁹ According to Basinger and Basinger,

Natural laws . . . are conditional propositions. They do not describe what will or will not occur, given *any set* of preconditions. Natural laws tell us that, given a specific set of natural conditions *and given that there are no other relevant forces present*, certain natural phenomena will or will not always occur.¹⁵⁰

This means that if there *are* some other relevant forces present -- e.g., the matter/energy introduced into the physical situation by a very powerful and intelligent transcendent agent -- then the laws will not be violated. Rather, the laws will remain intact. Indeed, all that will be different is that the laws will be illustrated differently with respect to a different specific set of initial conditions: our predictions will be off because the laws hold and the initial conditions have suffered interference. The following example from Larmer very helpfully clarifies the matter:

We do not . . . violate the laws of motion if we toss an extra billiard ball into a group of

¹⁴⁹I am following Larmer here (see Larmer, *Water into Wine?*, chapter 2), who seems very much to be following Lewis (see Lewis, *Miracles*, chapter 8).

¹⁵⁰Basinger & Basinger, *Philosophy and Miracle*, 11.

billiard balls in motion on a billiard table. There is no moment at which the laws of motion are contravened. What we do by introducing the extra billiard ball is change the material conditions to which the laws of motion apply and hence change the result which would otherwise be expected.¹⁵¹

At this juncture, Overall might object as follows: "If a loaf of bread suddenly materializes on the table before me, then surely the usual laws governing the production of bread -- including the mixing of ingredients such as flour, salt, and water, the kneading of the dough, and the baking of the dough in an oven -- have stopped operating. So Larmer's claim that the creation or annihilation of matter [by God] is consistent with the observable laws of nature appears to be false."¹⁵² In response to Overall, one could argue as follows. In her example, the laws Overall describes are those which describe the *natural* production of bread. So, if a *miraculous sense 6* loaf were to appear, that is, if a *supernaturally caused* loaf were to appear, the laws governing the *naturalistic* production of bread would *not* have stopped operating. The usual bread-producing laws, *ceteris paribus*, would remain the same: bread still must be made the same way in the absence of a supernatural creation -- flour, salt, and water must be mixed, kneaded, and baked. In other words, in Overall's example the *ceteris paribus* qualification simply does not hold because other forces -- miraculous sense 6 forces -- are supposed (hypothesized) to be (for conceptualization purposes) at work.¹⁵³

But, one might point out that the bread loaf, unlike the billiard ball, was supposedly brought into physical existence out of nothing, that is, from the non-physical realm. Would not a violation of a law of nature occur here? Would not the creation of matter/energy violate the First Law of Thermodynamics (also

¹⁵¹Larmer, *Water into Wine?*, 20.

¹⁵²Overall, "Miracles and Larmer," 125.

¹⁵³If Overall takes the bread's sudden materialization to be uncaused, then Overall has a point. However, the immediate context of Overall's discussion has to do with *God's* creation of matter/energy, i.e., a *miraculous* intervention (for substantiation see page 125 of Overall's "Miracles and Larmer" for the paragraph, i.e., the context, in which the above words from Overall occur). In chapter 3 of this dissertation it will be argued that if X begins to exist, then X is caused. In chapter 5, the question of identifying an event as caused by a supernatural agent, will be addressed.

known as the Principle of the Conservation of Energy)? Larmer anticipates this objection. Larmer points out that the Principle of the Conservation of Energy has two formulations: (1) "Energy can neither be created nor destroyed, although its form may change"; and (2) "In an isolated system (that is, a system not causally influenced by something other than itself) the total amount of energy remains constant, although its form may change."¹⁵⁴ Also, Larmer points out that the first formulation is stronger than the second, and that the actual evidence only supports the second. In addition, it is only the first formulation that the creation or annihilation of matter/energy would violate. Now, because the first formulation is much stronger than the second and hence much stronger than the evidence warrants, and because the first formulation is the only formulation of the two that a miracle would violate, the first can be reasonably seen to be not a law of nature but an *a priori* deistic or naturalistic metaphysical principle which unjustifiably rules out miracles. The second formulation, on the other hand, is a legitimately expressed law of nature. And on the second formulation it is possible for a transcendent agent to intervene in the physical universe by bringing about something physical out of the non-physical. Thus, the second component of the definition of miracle does not violate the laws of nature and so is reasonable to accept.¹⁵⁵

Overall would disagree. Referring to Larmer's above-described handling of the First Law of Thermodynamics (Principle/ Law of the Conservation of Energy), Overall writes:

I find this response unacceptable because whether there *is* anything outside the 'isolated

¹⁵⁴Larmer, *Water into Wine?*, 24. Also, see the entries "Conservation Law" and "Thermodynamics" in Alan Isaacs, editor, *Oxford Dictionary of Physics*, 3rd edition (Oxford & New York: Oxford University Press, 1996), 76-77 & 427-428. See too "Thermodynamics," in James Trefil, editor, *Encyclopedia of Science and Technology* (New York & London: Routledge, 2001), 478. Concerning the discussion that follows (above), see Larmer, *Water into Wine?*, 24-27 & 61-73. See too, Robert Larmer, "Miracles and Conservation Laws: A Reply to MacGill," *Sophia* 31:1&2 (1992): 89-95 (reprinted in Larmer, *Questions of Miracle*, 69-75).

¹⁵⁵The idea of matter/energy coming into being out of nothing physical is not wholly foreign to science. According to the Steady State model of the universe, new matter/energy comes into being in the space between the galaxies as they move farther apart. See "Steady-state theory," in *Oxford Dictionary of Science*, 4th edition, edited by Alan Isaacs, John Daintith & Elizabeth Martin (Oxford & New York: Oxford University Press, 1999), 750.

system' of our universe is part of the very issue itself. If we start out, as Larmer does, by presupposing that the universe has an outside beyond which natural laws do not apply, and that something on the outside can intrude into this universe, then we have already built into our ontological system the transcendent being whose existence is at issue.¹⁵⁶

However, it does seem acceptable and even necessary to discuss the framework in which laws apply. In response to Overall, one needs to note that the issue at hand is merely a *conceptual* or *definitional* issue having to do with setting out a logically coherent account of the notion of miracle which does not involve the idea of violating a law of nature.¹⁵⁷ To be sure, the conceptualization of miracle as an action of some supernatural agent involves assumptions about the logical coherence of the theses "that the universe has an outside beyond which natural laws do not apply, and that something on the outside can intrude into this universe."¹⁵⁸ That is, the conceptualization of miracle as such involves a picture of reality that undoubtedly seems to many persons to be an apparently mythic or fictional realm. However, whether or not there *actually is* anything outside of the alleged isolated system, apparently mythic/fictional or not, is simply irrelevant to the setting out of a logically coherent concept of miracle. Surely, one can legitimately engage in the project of merely *defining* X without requiring the *existence* of X.¹⁵⁹ Of course, the concept of miracle would be circular if the *definiendum* occurs in the *definiens*, but such an occurrence does not occur in any of the miracle definitions set out in this dissertation.

Perhaps someone at this juncture might object that a miracle such as a resurrection, that is, a literal

¹⁵⁶Overall, "Miracles and Larmer," 125.

¹⁵⁷Overall's comments come from a section of her article which is subtitled "Larmer's Definition of Miracle" (Overall, "Miracles and Larmer," 123), so even she acknowledges that the project is definitional/conceptual.

¹⁵⁸Overall, "Miracles and Larmer," 125.

¹⁵⁹Proponents of the ontological argument for God's existence would disagree, if X is God. As interesting as the ontological argument is, its discussion here will be considered beyond the scope of this dissertation. For (much) more on the ontological argument, see Alvin Plantinga, editor, *The Ontological Argument: From St. Anselm to Contemporary Philosophers* (Garden City, New York: Doubleday, 1965).

coming back to life in a transformed physical body with new tissue and with various extraordinary powers, would require a reorganization of matter that is not compatible with the *Second* Law of Thermodynamics, which tells us that entropy in a closed system increases over time. (Entropy is the unavailability of energy to do work; irreversible deterioration.¹⁶⁰) This objection, however, does not take into account the fact (as pointed out previously) that the laws of nature have implicit *ceteris paribus* clauses. The laws of nature hold *if no one and no thing interferes*. If somebody or something interferes in a situation wherein the law is operating, the prediction of a law, given no interference, will be off; the law *per se* is fine. Now, if there were no intervention from outside the system, and a resurrection occurs, then that would seem very much to be inconsistent with physics, i.e., the Second (and First) Law(s) of Thermodynamics would seem very much to be violated. We can legitimately say this because our knowledge concerning the natural impossibility of resurrections is excellent; in fact, the objection assumes that this knowledge is excellent in order to get the objection off the ground.¹⁶¹ Nevertheless, it may be helpful here to emphasize that we have excellent evidence that dead people, when left to themselves, stay dead. In fact, the evidence for non-reversible necrosis (cell decay at death) is super strong. It is surely reasonable to believe, then, that when nature is left to itself, resurrections not only do not occur but also cannot occur. In other words, we are very secure in our knowledge that a *naturally* caused resurrection is not compatible with the laws of nature. *But*, it needs to be emphasized, in the project at hand we are talking about -- i.e., conceptualizing -- a *miraculous* resurrection ("miraculous" in the sense of miracle sense 6). In the case of a miraculous resurrection, there is an introduction of matter/energy which is produced by an intelligent source that is outside of the system. This means that the *ceteris paribus* clause kicks in and keeps the Second Law of Thermodynamics intact because

¹⁶⁰See the entries "Entropy" and "Thermodynamics" in Isaacs, *Oxford Dictionary of Physics*, 132 & 427-428, respectively.

¹⁶¹Reminder: The word "resurrection" does not mean a mere resuscitation; it means a transformed physical body with new tissue and with various extraordinary powers which Jesus reportedly had (e.g., his ability to appear and disappear).

it (the clause) allows for the interference, which means that there is no violation of the Second Law of Thermodynamics, which means that miracles are consistent with physics.

At this juncture, it is interesting to note that by incorporating conditions one and two into our miracle definition we are returning in large measure to Aquinas's understanding of miracle. As was previously pointed out, according to Aquinas "a thing that has a completely hidden cause is wondrous in an unqualified way."¹⁶² The significance of the hiddenness of the cause is that it points to an event which is not produced by natural causes. And this is to say, with Aquinas (but Aquinas' word "divine" will be taken to mean merely *supernatural*), that "those things must properly be called miraculous which are done by divine power apart from the order [i.e., powers, dispositions, principles] generally followed in things."¹⁶³ In other words, in the words of Francisco Suarez, a miracle must "exceed all the native power of visible and bodily causes."¹⁶⁴ This can be quite reasonably understood as incorporating the first and second conditions into the concept of miracle: i.e., a miracle is an event that is extraordinary or unusual relative to the regular course of nature, an extraordinariness or unusualness which consists of a contrast to the usual course of nature arising from its being wholly beyond the capacity of unaided nature to produce, and it is an event that consists of an introduction or coming into being of complex specifically structured matter/energy.

Having defended the non-violation view of miracle by showing its logical coherence and the logical incoherence of the violation view, at this juncture it should be noted that the tendency of some philosophers to use the mistaken violation view can be explained to some extent via an error theory and so the view, in a sense, need not be discarded wholly. Mavrodes quite reasonably suggests that "associated with" a law of

¹⁶²Aquinas, *On the Truth of the Catholic Faith*, 3.101.1.

¹⁶³Aquinas, *On the Truth of the Catholic Faith*, 3.101.1.

¹⁶⁴Francisco Suarez, *De angelis*, 4.39.10; cited by John A. Hardon, "The Concept of Miracle from St. Augustine to Modern Apologetics," *Theological Studies* 15 (1954), 237.

nature and its *ceteris paribus* clause is a universal generalization without such a clause.¹⁶⁵ This second generalization "describes the natural world as it would be if it were left to itself."¹⁶⁶ Also, Mavrodes points out,

[This second generalization] will be a true description of the world if in fact there are no divine interferences.... And it will be false if there are any such interferences. This second generalization provides a sense in which a miracle is a violation.¹⁶⁷

In other words, as Michael Levine points out, "Only if one disregards the possibility of supernatural causes can known exceptions to laws possibly be regarded as violations of laws."¹⁶⁸ The violation view of miracles, then, may be attractive to at least some thinkers (especially those who are not sympathetic to miracles: e.g., Hume and company) because a miracle violates their understanding of nature in the sense that they *already believe or assume* that nature is wholly autonomous.

(b) Some Clarifications, to Emphasize the Pointers

So, our first and second conditions of a miracle require that the event is extraordinary with respect to nature's regular operations in the sense that the event's occurrence is wholly beyond the capacity of unaided nature to produce, and that the event consists of an introduction or coming into being of complex specifically structured matter/energy. Can some aspects of these conditions be made clearer and so serve more clearly as pointers to clues in the world? The answer is Yes. This extraordinary introduction of complex specifically structured matter/energy into the physical situation means that the matter/energy is created out of nothing physical. (By "physical" I mean those sorts of objects, forces and events that constitute the subject matter of

¹⁶⁵Mavrodes, Book Review of *Hume, Holism, and Miracles*, by David Johnson, 255.

¹⁶⁶Mavrodes, Review, 255.

¹⁶⁷Mavrodes, Review, 255.

¹⁶⁸Levine, "Miracles," 1.

the contemporary physical sciences, sciences such as physics, chemistry, biology, neurophysiology, and, on a grander scale, astronomy.) The new matter/energy is not a mere reconfiguration of already existing matter/energy.¹⁶⁹ Also, this extraordinary introduction of complex specifically structured matter/energy into the physical situation is something that natural (physical) causes cannot produce on their own. This seems to leave open two possibilities: (1) the possibility of a transcendentally-caused creation coming out of a non-physical realm of being; and (2) the possibility of a wholly spontaneous creation, a creation coming out of absolutely nothing and caused by absolutely nothing. Also, to introduce complex specifically-structured matter/energy into the physical situation is to introduce something that is not a mere undifferentiated glob of matter/energy. For example, in the case of Jesus' virgin birth (i.e., his conception in Mary's womb without the help of a human father) the new matter/energy is configured in a particular and wildly complex way: to function as a Y chromosome in Mary's ovum, or to function as a fertilized human egg. In the case of Jesus' resurrection, the new matter/energy has to be configured in a particular and wildly complex way: to function as a new, high-powered body. The newly introduced matter/energy, then, has to be highly specified in its amount and in its complexity, and so it seems very much to require an intelligent cause.

Does contemporary science provide clues for thinking that a physical creation can come into being, caused, out of the non-physical realm? Does contemporary science provide clues for thinking that there exists a very powerful being which/who transcends nature and can be causally connected to nature? Does contemporary science provide clues for thinking that the previously-mentioned being is an intelligent being who can structure physical reality in such a way as to leave signs of intelligence? These questions will be asked again at the end of this chapter and answered in subsequent chapters.

¹⁶⁹This introduction of complex specifically structured matter/energy would explain miracles in which it appears that God accelerates the natural processes involved. For example, in Jesus' turning water into wine it may be that there is a creation of the required substances rather than a recombination and acceleration of the natural process of wine making.

D. Condition Number Three

1. Condition Number Three Considered

The third condition for an event to be a miracle is that it is an event produced by a very powerful, nature-transcending and intelligent causal source of matter/energy, i.e., God or a God-like being.¹⁷⁰ As Larmer has pointed out, "a miracle is brought about by a rational agent who transcends nature."¹⁷¹ Whether this agent is God or some lesser God-like being is a question Larmer leaves open.¹⁷² According to Beckwith, who follows Swinburne, "[a] miracle is an event for which a 'god' is responsible."¹⁷³ Beckwith goes on to appeal to Swinburne's definition of "god": according to Swinburne, a god is "a *non-embodied* rational agent of great power."¹⁷⁴ Swinburne adds, "By the agent being of great power I mean that he or she can produce effects far beyond the normal powers of humans."¹⁷⁵ Beckwith also holds that "a divine intervention refers to the action

¹⁷⁰As mentioned in the introduction to this dissertation, it will be assumed that the notion of an immaterial causal agent, such as God or a God-like being, is logically coherent. For a defence of this view, see Stephen T. Davis, "God's Actions," in *In Defense of Miracles: A Comprehensive Case for God's Action in History*, edited by R. Douglas Geivett & Gary R. Habermas (Downers Grove, Illinois: InterVarsity Press, 1997), 163-177. See too: Richard Swinburne, *The Coherence of Theism* (Oxford: Clarendon Press, 1977); Charles Taliaferro, "The Possibility of God: The Coherence of Theism," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 239-258; and Ronald H. Nash, *The Concept of God: An Exploration of Contemporary Difficulties with the Attributes of God* (Grand Rapids, Michigan: Academic/Zondervan, 1983).

¹⁷¹Larmer, *Water into Wine?*, 8-9.

¹⁷²Larmer even suggests that a miracle may be caused by a human person, and he appeals to the New Testament book of Acts 3:1-9 for substantiation. It seems to me that because the healing performed by Peter in this passage is done "in the name of Jesus Christ of Nazareth," God is acting in this instance of healing in response to Peter's call for healing.

¹⁷³Beckwith, *David Hume's Argument Against Miracles*, 7.

¹⁷⁴Swinburne, *The Concept of Miracle*, 6; Swinburne, "Introduction," in *Miracles*, 5; Beckwith, *David Hume's Argument Against Miracles*, 12.

¹⁷⁵Swinburne, "Introduction," in *Miracles*, 6.

of a non-natural agent, e.g., a god, an angel."¹⁷⁶ Also, as has been noted, Lewis describes the cause of a miracle as a "supernatural power."¹⁷⁷ Even Hume, as we have seen, holds that a miracle is brought about "by a particular volition of the Deity, or by the interposition of some invisible agent."¹⁷⁸ Overall and Aquinas, however, object to the third condition.

Overall favours a conception of miracle that "does not presuppose transcendent agency, and is neutral with respect to whether or not [the event in question] is created by God."¹⁷⁹ Overall argues that incorporating supernatural causal agency into the definition of miracle will land the miracle defender into question-begging. According to Overall, "by starting with an example given by Christians of a miracle [e.g., Jesus' alleged virgin birth], and including within it a description that includes supernatural intervention, [the defender of a concept of miracle which includes supernatural causal agency] is already saying that naturalistic explanation has failed."¹⁸⁰ In other words, according to Overall, "Since [the defender of a concept of miracle which includes supernatural causal agency] starts by assuming the reality of the events that Christians offer up as miracles, and defines those miracles as including religious significance and being caused by supernatural agency, he has already arrived at his end point even as he begins; theism is built into the method from the very start."¹⁸¹ In response to Overall, however, one can reply with three reasons. First, the concept of miracle, as we have seen in the discussion of miracles earlier in this chapter, clearly includes the idea of a supernatural cause: the typical meaning of miracle, especially miracle sense 6, is that it is an event that is caused by a supernatural, powerful, and intelligent agent, such as God. Miracles are conceived not as events that are causally unconnected, nor

¹⁷⁶Beckwith, "Theism, Miracles, and the Modern Mind," 221.

¹⁷⁷Lewis, *Miracles*, 12.

¹⁷⁸Hume, *Enquiry*, 115n.

¹⁷⁹Overall, "Miracles and Larmer," 127.

¹⁸⁰Overall, "Miracles and Larmer," 129. Overall is referring explicitly to Larmer in the above passage.

¹⁸¹Overall, "Miracles and Larmer," 128. Overall is referring explicitly to Larmer in the above passage.

as events that are caused by natural causes; they are conceived as caused by supernatural agency. Second, the defender of a concept of miracle which includes supernatural causal agency merely *hypothesizes* or *entertains* the possible occurrence of a miracle, for the sake of teasing out a definition; the defender does not assume (or at least need not assume) that the miracle *actually exists in reality*, the defender does not assume (or at least need not assume) that a miracle *has actually occurred in fact*.¹⁸² To be sure, this hypothesizing is informed by our fallible knowledge of nature's capabilities, especially in the conception of a miracle in sense 6, and, to be sure, it may be the case that an alleged miracle's occurrence turns out to be in fact better explained by natural causes, but this still is not to presuppose a miracle's actual existence. Third, Overall seems to conflate (again) the conceptual project of defining a miracle, on the one hand, with, on the other hand, the epistemological project of identifying or recognizing a miracle's actual occurrence when the occurrence is supposed to serve as evidence for the existence of the alleged supernatural cause. It may very well turn out that the occurrence of an event as conceived as miracle sense 6 simply cannot be identified as such (contrary to what the author of this dissertation is inclined to think); but that is another matter. So, the concept of miracle sense 6 remains, and there also remains an epistemological project of identifying or recognizing a miracle's actual occurrence, which is in large measure a project of this dissertation, but especially the project of chapter 5.¹⁸³

Aquinas insists that *only God* can bring about a miracle.¹⁸⁴ A miracle is an object of wonder, and true wonder for Aquinas comes from a cause that is, "absolutely speaking," hidden from all people, which is God.¹⁸⁵ Aquinas's strict view on miracles (i.e., that a miracle is done by God only) runs into some practical

¹⁸²This is true of Larmer too, *pace* Overall.

¹⁸³The objection that this project is question-begging when the occurrence of a miracle is supposed to serve as evidence for the existence of the alleged supernatural cause will be examined in part IV-C-2 of chapter 5.

¹⁸⁴Aquinas, *On the Truth of the Catholic Faith*, 3.101.2.

¹⁸⁵Aquinas, *On the Truth of the Catholic Faith*, 3.101.1.

as well as conceptual difficulty, as discerned by Pope Benedict XIV in the eighteenth century.¹⁸⁶ Pope Benedict XIV points out that Aquinas's view makes it very difficult for the Catholic church to beatify and canonize her saints, a process which requires the investigation of miracle claims.¹⁸⁷ It is one thing to distinguish between natural and supernatural causes; it is quite another thing to distinguish between supernatural causes themselves (which is the issue at hand). The Pope does make a case for distinguishing between a false miracle wrought by a fallen angel and a true miracle wrought by a good angel: we are to examine "the good effects of a phenomenon, its utility, mode of performance, purpose, character of the performer and circumstances."¹⁸⁸ In other words, we are to determine the identity of the supernatural author of a miracle, that is, determine whether this author is a fallen angel on the one hand or a good angel or God on the other hand, on moral grounds (which apparently include Sacred Scripture as a record of early Church judgments in these matters). But this still leaves the thorny practical and conceptual issue of distinguishing between supernatural acts in the world wrought by good angels and supernatural acts in the world wrought by God. As interesting and important as this distinction may be, not to mention the difficulty in actually making it for practical identification purposes, an attempt to set out the criteria of this distinction will not be pursued here. Because the good angels are presumably ambassadors for God, and because all true miracles are ultimately due to God either via God's direct doing or via God's delegation of His authority and power to angels, this dissertation will follow Pope Benedict XIV -- as well as Hume, Larmer, Lewis, Swinburne, and others -- in holding to a more general position: namely, that a miracle is produced by a very powerful,

¹⁸⁶Hardon, "The Concept of Miracle from St. Augustine to Modern Apologetics," 234-243.

¹⁸⁷Interestingly, as Stanley Jaki points out, the pope, prior to becoming the pope, served the church in the role of "devil's advocate," that is to say, he was "the official whose duty is to sift spurious miracles from credible ones" (Stanley Jaki, *Means to Message: A Treatise on Truth* [Grand Rapids, Michigan/ Cambridge, U.K.: William B. Eerdmans Publishing Company, 1999], 186). Because such sifting takes us a step closer (hopefully) to the truth on these matters, it seems that it would be more appropriate to describe the pope's pre-papal duty as that of an "angel's advocate."

¹⁸⁸Hardon, "Concept of Miracle from St. Augustine to Modern Apologetics," 236.

intelligent, and transcendent causal source of matter/energy. Discerning whether this cause is a good angel or God -- or some other particular very powerful, intelligent, transcendent, God-like being -- will require further investigation, investigation that will not be pursued here.

2. Some Clarification, to Emphasize the Pointers

So, the third condition of a miracle is that it is brought about by a very powerful, nature-transcending and intelligent causal source of matter/energy. Can some aspects of this condition be made clearer and hence serve more clearly as pointers to clues in the world as discerned by contemporary science? The answer is Yes. That this cause transcends nature means that it exists "outside" nature, that is, beyond the physical universe in an immaterial realm. That this cause is very powerful means that, though physically transcendent, it can bring physical objects into being out of the non-physical realm. Moreover, that this cause is intelligent means that to achieve a purpose it can, as William Dembski points out, "choose from a range of competing possibilities."¹⁸⁹ It also means that, because its intelligence is combined with its great power, it can create highly complex specifically-structured physical items which, because of their highly complex specific structure, display signs of intelligence.

Does contemporary science provide clues for thinking that there exists a very powerful and intelligent being who transcends nature and can have a causal impact as described above? This question will be asked again at the end of this chapter and answered in a subsequent chapter.

¹⁸⁹William A. Dembski, "Signs of Intelligence: A Primer on the Discernment of Intelligent Design," in *Signs of Intelligence: Understanding Intelligent Design*, edited by William A. Dembski & James M. Kushiner (Grand Rapids, Michigan: Brazos Press, 2001), 188. Interestingly, Dembski also points out that the word "intelligent" is derived from the Latin *inter* (between) and *lego* (choose or select), and so "according to its etymology, intelligence consists in *choosing between*" (Dembski, "Signs of Intelligence," 188).

E. Condition Four

1. Condition Four Considered

The fourth condition of a miracle is that it has religious significance. As mentioned earlier, that a miracle is religiously significant means that a miracle can advance or contribute to, as Swinburne points out, "a holy or divine purpose for the world."¹⁹⁰ Following the biblical view of miracle, as also mentioned earlier, Swinburne distinguishes between a wide and a narrow understanding of religious significance. On the wide understanding, a miracle is a good event and contributes to or provides a foretaste of the world's ultimate future.¹⁹¹ On the narrow understanding, a miracle confirms the holiness of some individual who performs the miracle or it provides God's seal of approval upon a particular doctrine on whose behalf the miracle was wrought.¹⁹² In the case of the two miracles of central interest in this dissertation, it would seem that elements of both the wide and narrow views come into play. According to Christian theology, Jesus' resurrection defeats the power of death, which is presumably a good thing, and it provides a foretaste of the future actuality in God's kingdom of life after death. Also, Jesus' resurrection is said to serve as a divinely-wrought confirmation of the truth of Jesus' various religious teachings plus the doctrine that he is God's Son miraculously conceived by God in the virgin Mary's womb. Moreover, Jesus' virgin birth and resurrection purportedly constitute signs which confirm the so-called "gospel" or good news.¹⁹³

At this juncture, it should be pointed out that some philosophers hold that the condition of religious significance should not be a necessary condition for an event to be deemed a miracle. Basinger and Basinger argue as follows:

¹⁹⁰Swinburne, "Introduction," in *Miracles*, 6.

¹⁹¹Swinburne, "Introduction," in *Miracles*, 6.

¹⁹²Swinburne, "Introduction," in *Miracles*, 6-7.

¹⁹³For a brief presentation of the gospel, and some relevant references, see this dissertation's introduction.

[T]here appears to be no set of objective *independent* criteria by which the theist can determine in all cases whether an event contributes to some holy, just purpose. Rather, the theist may in some cases be able to declare that an event contributes to a holy purpose only *after* she has determined that it has been caused by God.¹⁹⁴

And so, the Basingers conclude, "it seems best to us not to include 'religious significance' as a distinct, primary definitional criterion for miracle."¹⁹⁵ The Basingers, however, seem to confuse an epistemological problem with an ontological problem. To be sure, one may in some cases be able to say that an event contributes to a holy purpose only after determining that the event has been caused by God or some very powerful nature-transcending agent. But so what? The point at issue here is not *how we figure out* whether a miracle has occurred; that is, it is not an *identification* issue. Rather the point at issue here is *what is* a miracle; that is, it is a *conceptual, definitional* issue. Indeed, as Larmer points out, "it makes no sense to call an event a miracle unless it can be interpreted as being in accord with the divine purposes."¹⁹⁶ Part of what constitutes a miracle, then, is that it is purposeful with regards to some supernatural, divine plan which purportedly pertains to the ultimate well-being of people. Perhaps the religious significance of a miracle is difficult to figure out and the person doing the miracle has to explain its significance, and perhaps we can only accept the explanation by faith in that person's integrity and superior knowledge (this would be a kind of argument from authority); but this is an issue that is separate from what constitutes a miracle's nature.

Also at this juncture, it should be pointed out once again that Hume does not include religious significance as part of the definition of miracle. According to Hume, "A miracle may be accurately defined [as] *a transgression of a law of nature by a particular volition of the Deity, or by the interposition of some*

¹⁹⁴Basinger & Basinger, *Philosophy and Miracle*, 22.

¹⁹⁵Basinger & Basinger, *Philosophy and Miracle*, 23.

¹⁹⁶Larmer, *Water Into Wine?*, 11.

invisible agent."¹⁹⁷ Hume takes only conditions one and three (where condition one is understood as a violation of a law of nature) as necessary and jointly sufficient for a miracle. For Hume, a miracle occurs even in the apparently pointless "raising of a feather, when the wind wants ever so little of a force for that purpose," whether this event is "discoverable by men or not."¹⁹⁸ In view of our discussion of traditional/ biblical miracles near the beginning of this chapter, however, the following comments from Swinburne seem to be an acceptable criticism of Hume: "If a god intervened in the natural order to make a feather land here rather than there for no deep natural purpose, or to upset a child's box of toys just for spite, these events would not naturally be described as miracles."¹⁹⁹ Clearly, as the biblical use of the notion of miracle sense 6 shows, for an event to be a miracle it should have considerable significance of a religious sort.

2. Some Clarifications, to Emphasize the Pointers

So, the fourth condition of a miracle is that it is a religiously significant event. Can some aspects of this condition be made clearer and hence serve as pointers to clues in the world which somehow show the world to be miracle friendly? The answer is Yes. First, though, it should be emphasized (as was pointed out in the introduction to this dissertation) that the setting out of all the specifics of the alleged religious significance of a miracle, e.g., the details of the gospel, is probably best left to theologians and religious studies scholars and evangelists, not philosophers (though philosophers should certainly investigate the logical sense and plausibility of such pronouncements²⁰⁰). Theology should probably be left to theologians, religious

¹⁹⁷Hume, *Enquiry*, 115n.; italics in the original.

¹⁹⁸Hume, *Enquiry*, 115n.

¹⁹⁹Swinburne, "Introduction," in *Miracles*, 6.

²⁰⁰For examples, see: Anne C. Minas, "God and Forgiveness," in *Contemporary Philosophy of Religion*, edited by Steven M. Cahn & David Shatz (New York & Oxford: Oxford University Press, 1982), 32-45; Thomas V. Morris, *The Logic of God Incarnate* (Ithaca & London: Cornell University Press, 1986); Jerry L. Walls, *Hell: The Logic of Damnation*, Library of Religious Philosophy, Volume 9 (Notre Dame & London:

studies to religious studies scholars, and evangelism to the likes of Billy Graham, especially in the course of a philosophy dissertation. But does this mean that the philosophical investigation of the religious significance of miracle comes to a complete halt here? One should think not. One can concede that the exact and whole nature of the religious significance of a miracle should be left to theologians, religious studies scholars, and evangelists to articulate (and thus for philosophers subsequently to investigate), but this is not to say that there is not a philosophical dimension immediately and intimately connected to a miracle's religious significance which still can and should be studied in this dissertation. In fact, it is a contention of this dissertation that there is a *moral* dimension which is an integral conceptual part of the religiously significant aspect of a miracle, and which is properly a subject of philosophical inquiry. As noted above, on Swinburne's wide understanding of religious significance, a miracle is supposed to be a *good* event. Leaving aside the existential significance for humankind of Jesus' miraculous virgin birth and resurrection (God's coming to earth and giving us a glimpse of a glorious life after death is presumably a good thing for humankind), what is also interesting in these miracles in the context of their religio-metaphysical significance -- i.e., the context of the Christian gospel -- is that God is *indicating* and *confirming* the objective moral worth of intelligent human beings. By becoming a human in Jesus and resurrecting after death, God allegedly indicates and confirms that, as Genesis points out, He considers His creation to be "good" and, when humans come on the scene, "very good."²⁰¹ In other words, what God communicates via miracles (sense 6) is, among other things, His view that intelligent human beings are in an objective sense the moral crown, as it were, of His creation: i.e., intelligent human beings have objective moral value (intrinsic worth).

University of Notre Dame Press, 1992); John G. Stackhouse, Jr., *Can God Be Trusted? Faith and the Challenge of Evil* (New York & Oxford: Oxford University Press, 1998); Peter van Inwagen, *The Possibility of Resurrection and Other Essays in Christian Apologetics* (Boulder, Colorado: Westview Press, 1998). As was mentioned in the introduction to this dissertation, in this dissertation the concepts of God's forgiveness, God's incarnation, God's existence vis-à-vis evil and suffering, and Jesus' physical resurrection will be assumed to be logically coherent.

²⁰¹Genesis 1: 4, 10, 12, 18, 21, 25, and especially 31.

Significantly, however, as Plato's Euthyphro dilemma shows, for humans to make sense of this -- which we very much seem to -- such moral worth must be, from the human perspective, conceptually discernable independent of God.²⁰² Properly adjusted for a theistic context, the Euthyphro dilemma asks: Is an action right because God wills it, or does God will an action because it is right?²⁰³ That is to ask: Is God's will right-making, or is it right-indicating? If one answers yes to the first question, i.e., to the question of the first disjunct (and if one does not constrain God's will by His goodness or perfection), then this seems to make God's will unacceptably arbitrary. If one answers yes to the second question, i.e., the question of the second disjunct, then it seems that there is a standard of rightness which exists independently of God. Is there a *tertium quid*? There very much seems to be one, namely: Ethics and objective moral value are neither created by nor independent of God. In other words, God's will is right-indicating, but what God's will indicates is ontologically dependent on God's nature. The moral principles articulated by God's communiques reflect God's unchanging and perfect nature. Of course, from the human point of view, rightness and moral worth must be conceptually discerned independently (epistemologically) of God. We must already have in mind a concept of goodness to understand the concept of God's goodness or to judge/recognize that God is good, so God's goodness must be explained in terms which do not appeal to God as the standard of goodness. Ethics and moral value, then, are dependent on God ontologically, but conceptually/ epistemologically *our* understanding of ethics and moral value comes first (for us). Thus, a logical implication of the religious significance of miracles such as Jesus' resurrection and Jesus' virgin birth is that the events are morally significant in an objective sense and this objective moral significance stems from the objective moral worth

²⁰²The Euthyphro dilemma can be found in Plato, *Euthyphro*, translated by Lane Cooper, in *Plato: The Collected Dialogues including the Letters*, edited by Edith Hamilton & Huntington Cairns, Bollingen Series LXXI (Princeton: Princeton University Press, 1961), 169-185.

²⁰³Plato, *Euthyphro*, 10a (p. 178).

of intelligent human beings, recognizable to us without appealing to God for philosophical justification.²⁰⁴

Does moral philosophy provide clues (good reasons) for thinking that intelligent human beings have objective moral value? This question will be asked again at the end of this chapter.

V. Conclusion

The thesis of this dissertation is that the concept of miracle, properly understood, is such that certain features of its metaphysical and moral implications, when examined in the context of some pointed-to findings from contemporary science and some pointed-to discernments from moral philosophy, can be reasonably seen to enhance the plausibility of a miracle hypothesis. Appropriately, then, the aim of this chapter has been to clarify the particular concept of miracle which is of central interest in this dissertation. To achieve the aim of this chapter, the following four steps were taken. First, two contemporary subjective senses plus various objective senses of "miracle" were examined. Of the latter, one was a contemporary scientific sense and the rest were traditional/biblical senses. Second, several philosophical conceptions of miracle were examined. Third, a particular philosophical definition of miracle (sense 6) that captures the miraculous nature of the miracles of central interest in this dissertation (i.e., the virgin birth and the resurrection of Jesus) was set out. Fourth, the four main components of this miracle definition were examined and defended, and certain aspects of these components were emphasized. As a result of the fourth step, the following questions came to the fore: Does contemporary science provide clues for thinking that a physical creation can come into being,

²⁰⁴For further discussion on the relationship between God and ethics, see: Richard Mouw, *The God Who Commands: A Study in Divine Command Ethics* (Notre Dame, Indiana: University of Notre Dame Press, 1990); Jan Narveson, *Moral Matters*, 2nd edition (Peterborough, Ontario: Broadview Press, 1999), 43-46; Kai Nielsen, *Ethics Without God*, 2nd edition (Buffalo, New York: Prometheus Books, 1990); Kai Nielsen, *God and the Grounding of Morality* (Ottawa & Paris: University of Ottawa Press, 1991); Louis P. Pojman, *Ethics: Discovering Right and Wrong*, 3rd edition (Belmont, California: Wadsworth Publishing Company, 1999), chapter 10; Scott B. Rae, *Moral Choices: An Introduction to Ethics*, 2nd edition (Grand Rapids, Michigan: Zondervan Publishing House, 2000), chapter 2; Steve Wilkens, *Beyond Bumper Sticker Ethics* (Downers Grove, Illinois: InterVarsity Press, 1995), chapter 10.

caused, out of the non-physical realm? Does contemporary science provide clues for thinking that there exists a very powerful being which/who transcends nature and can be causally connected to nature? Does contemporary science provide clues for thinking that the previously-mentioned being is an intelligent being who can structure physical reality in such a way as to leave signs of intelligence? And: Does moral philosophy provide clues (good reasons) for thinking that intelligent human beings have objective moral value?

In the chapters that follow, this dissertation will look for (and at) those clues to which the concept of miracle (sense 6) has pointed us. In chapter 2, the clue that intelligent human beings have objective moral value will be discerned and defended. (The clue that intelligent human beings do have objective moral value will in chapter 4 be put to use in an argument for the intelligent agency of a very powerful causal matter/energy source which/who transcends nature.) In chapter 3, the clue that something physical has come out of the realm of the non-physical will be examined. The scientific evidence for the Big Bang will be accepted as a clue that the physical universe began to exist. In chapter 3 it will be argued that this clue gives reasonable grounds for thinking (1) that there is a very powerful and physically transcendent cause of the universe rather than (2) that the universe came into being uncaused, out of nothing. Chapter 4 will investigate the clue that some general aspects of the physical universe (its "fine-tuning") plus several of its specific contents (the cell's molecular machines, DNA's code/language) appear designed, and -- with some help from the clues from chapters 2 and 3 -- chapter 4 will argue that it is reasonable to think that this apparent design constitutes a trace of intelligence which points to a very powerful, transcendent, and intelligent causal source of matter/energy. In chapter 5, it will be argued that the findings of the previous chapters -- that the universe's coming into being in a highly complex and specifically structured way, displaying marks of intelligence, and very apparently caused by a very powerful and seemingly intelligent matter/energy source which exists beyond the universe -- seem very much to be an instance of the concept of miracle "writ large". In chapter 5 it will also be argued that this very apparent large-scale miracle enhances the plausibility of the occurrence of a small-scale miracle, given specific historical testimony/evidence which smacks of the miraculous.

Chapter 2

MORAL PHILOSOPHY

The failure of Moral Relativism and the success of Minimal Intuitionism as clues for thinking that intelligent human beings have objective moral value

I. Introductory Remarks

The thesis of this dissertation is the following: On the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications -- when examined in the context of some implied/ predicted findings from contemporary science plus some implied/ predicted discernments from moral philosophy -- serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity or power to make sense of some facts which suggest such an operation. As has been pointed out in the previous chapter, one of the conditions of the concept of miracle that is of interest in this dissertation is that it has religious significance and part of this religious significance is that the Deity is (allegedly) indicating/confirming through miracle that human beings have objective moral value. As has been pointed out too, the miracle concept, so understood, logically implies/predicts that people have objective moral value. As has been pointed out as well (and will be argued in later chapters), if a miracle hypothesis is used to explain some facts and this implication/ prediction is satisfied/confirmed, then that counts in favour

of a miracle hypothesis in the following important ways: the instantiation of that which has objective moral value serves to provide what very much appears to be an end or goal for the "fine-tuning" of the universe's initial conditions, and this initial fine-tuning which ends up with what has objective moral value is something that can be taken to be a combination which smacks of deep mind affinity (chapter 4); also, the instantiation of that which has objective moral value serves to provide what very much appears to be an end or goal for the machines and DNA code in the cells of a human being, and this machinery and instructional codes which end up with what has objective moral value are something that also can be taken to be a combination which smacks of deep mind affinity (chapter 4); in addition, these results (along with a result from chapter 3) can be employed as an integral part of a plausibility structure for miracle reports (chapter 5).

The aim of the present chapter is to look for the first clue logically implied/predicted by the concept of miracle discussed in the previous chapter: i.e., the clue that intelligent human beings have objective moral value.¹ A case will be made for thinking that it is reasonable to believe that they (we) do.

To make the case for believing that intelligent human beings have objective moral value, the following steps will be taken. First, an examination will be undertaken of the contemporary ethical theory that, in the view of this dissertation's author, seems to constitute today's major opposition (understood broadly) to the belief that intelligent human beings have objective moral value. That theory is Moral Relativism. According to Moral Relativism, morals (moral principles and moral values) are essentially dependent upon either culture (a.k.a. Normative Ethical Relativism) or the individual's feelings (a.k.a. Ethical Subjectivism²). A case will be made for thinking that this theory has some seriously debilitating flaws, of which some are logical, some

¹As noted in the introduction to this dissertation, the notion of "clue" will be understood as evidence (a fact, object, or event) that helps to solve a problem, which in this case is whether or not the plausibility of a miracle hypothesis is enhanced by that evidence. It will be argued that the clues do enhance the plausibility of a miracle hypothesis.

²Ethical Subjectivism is a meta-ethical theory which has logical implications for ethical theory. For simplicity's sake, Ethical Subjectivism will be understood as an ethical theory, although, strictly speaking, it is not.

factual, and some obviously moral. Second, a (sub-)case will be made for what will be called Minimal Intuitionism, which is this dissertation's author's view that intelligent human beings have objective moral value and we know this via intuition. The (sub-)case will involve three parts. (1) Minimal Intuitionism will be clarified: for examples, its crucial concepts will be looked at; how Minimal Intuitionism differs from other Intuitionisms will be examined; and the question of whether there are other legitimate intuitions consistent with the primary intuition will be asked. (2) Then Minimal Intuitionism will be defended by appealing to the *obviously moral* flaws of Moral Relativism and by discerning some fundamental moral shortcomings and/or assumptions of several major theories in moral philosophy, theories which will be taken as a reasonable representation of contemporary moral philosophizing, theories which include Utilitarianism, Contractarianism, Survivalist/ Evolutionary Ethics, the Golden Rule, Kantian Ethics, Ross's Intuitionism, Natural Law Theory, plus a recent human rights theory -- Vital Needs Human Rights Theory. (3) Then various important objections to Minimal Intuitionism will be addressed.

It might be helpful for clarity's sake to note here that the case for Minimal Intuitionism made in this chapter does not consist of the argument that humans have objective moral value *just because* somebody intuits that they do. Such an argument is much too simplistic and easily suffers from charges of subjectivity and arbitrariness. Rather (as will be seen), the overall argument runs (roughly) as follows: A look at the various second-order theories (i.e., the moral theories) shows that our pre-theoretic first-order judgments/intuitions regarding these theories loom large in the sense that the intuited veracity of these first-order judgments either (1) competes with second-order theories which neglect the intuition (or attempt to explain it away) or (2) is very apparently presupposed by the second-order theories; in the former category the first-order judgments/intuitions trump the second-order theories, and in the latter category the first-order judgments/intuitions seem to be foundational to the second-order theories; thus, we have indirect evidence for the primacy and veracity of these moral intuitions. (The first category includes Moral Relativism, Utilitarianism, Contractarianism, and Survivalist/Evolutionary Ethics; as we will see, in these theories Minimal

Intuitionism is neglected or excluded to the very obvious pre-theoretic moral detriment of the theories, and so, indirectly, these theories serve to endorse Minimal Intuitionism. The second category includes the Golden Rule, Kant's ethics, Ross's Intuitionism, and Natural Law theory; as we will see too, in these theories Minimal Intuitionism seems very much to be in operation/presupposed, in some cases more obviously than others, and so, indirectly, these theories serve to endorse Minimal Intuitionism as well. Seemingly somewhere in between, but clearly leaning more towards the second category than the first, is Vital Interests Human Rights theory.) Because indirect arguments are legitimate in other philosophical fields of inquiry (e.g., logic, metaphysics), it is the view of this dissertation's author that such arguments are acceptable in ethics too.³

It should be noted here too (as was noted in the introduction to the dissertation) that the case for Minimal Intuitionism will very probably not persuade all readers of this dissertation. Nevertheless, the author of this dissertation believes that the case for Minimal Intuitionism is a reasonable case, a case that can be reasonably held by thoughtful, intelligent (critical) people. The purpose of this chapter, then, is to make philosophical space for Minimal Intuitionism on the table of ethical options.⁴

³For a couple of examples of indirect arguments (a.k.a. indirect proofs) in metaphysics, see the discussion of *reductio ad absurdum* in Wesley C. Salmon, *Logic*, 3rd edition, Prentice-Hall Foundations of Philosophy Series, series edited by Elizabeth Beardsley, Monro Beardsley & Tom L. Beauchamp (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1984), 32-34.

⁴The idea of "making space" comes from Peter Vardy who says that the purpose of his work in philosophy of religion (wherein he defends God's existence without attempting to provide so-called proofs for God's existence) is "to provide space in a society where the whole idea of God is dismissed, [to show] that it is a serious possibility, that it can be taken seriously by sane intelligent people who are willing to think critically" (Peter Vardy, "Philosophy of Religion," in *What Philosophers Think*, edited by Julian Baggini & Jeremy Stangroom [London & New York: Continuum, 2003], 120; see too Peter Vardy, *The Puzzle of God*, 3rd edition [London: HarperCollins Publishers, 1999]). This dissertation's author is attempting to do the same for Minimal Intuitionism in ethics.

II. Moral Relativism

Normative Ethical Relativism will be examined first, then Ethical Subjectivism.

A. Normative Ethical Relativism

What is Normative Ethical Relativism (NER)? NER is the ethical theory that one's morality is based fundamentally on the moral rules and values held by one's society. More specifically, NER is the normative thesis that moral rules and values are essentially a function of one's culture or society or tribe, i.e., that whether or not an act or value X is right or good for the members of a group depends in an essential way upon whether or not the group's belief or practice says or implies X is right or good.

For the sake of clarity, at this juncture NER should be distinguished from a few other relativisms. Ethical Subjectivism, as was pointed out in the previous section, is the thesis that morals are essentially dependent upon the individual's feelings. Descriptive Moral Relativism is the thesis that the moral beliefs and/or practices of individuals or groups do in fact differ from one group or individual to another. Conceptual Moral Relativism is the thesis that the very meaning of moral terms or concepts depends upon and varies with culture. Epistemic Relativism is the thesis that knowledge is in some important way mind-dependent. The view held in this dissertation is that all of these other relativisms are to varying degrees largely mistaken. In section II-A-1-a of this chapter, Descriptive Relativism will be shown to be mistaken. Also in section II-A-1-a, Conceptual Moral Relativism will be shown to suffer from some problems similar to those of NER, plus others besides. In section II-B, Ethical Subjectivism will be examined and will be shown to be a failure. In the next chapter -- chapter 3, section V -- Epistemic/ Perceptual Relativism will be considered, and it will be shown to be highly problematic.⁵

⁵For some important discussions of the various relativisms, especially epistemic/ perceptual relativism, see: Jerry A. Fodor, "A Reply to Churchland's 'Perceptual Plasticity and Theoretical Neutrality,'" *Philosophy of*

This section's investigation of NER will follow the lines of an exposition and evaluation of an argument that seems to be the main defence of NER, namely, what is known as the Cultural Differences Argument.⁶ In this section it will be argued that NER is a poorly-supported as well as seriously-flawed moral thesis.

1. The Cultural Differences Argument

(a) Exposition

The Cultural Differences Argument defends NER on the ground that there is great diversity of moral practice and belief among societies. This argument is perhaps the classic defence of NER, having been set forth as early as the fifth century B.C., as recorded by the ancient-Greek historian Herodotus.⁷ Even at the present time, the argument seems to be very popular among university and college students⁸ as well as among

Science 55 (1988): 188-198; Michael Luntley, *Reason, Truth and Self: The Postmodern Reconditioned* (London & New York: Routledge, 1995), chapter 5; Hugo Meynell, "Science, the Truth, and Thomas Kuhn," *Mind* 84 (January 1975): 79-93; Thomas Nagel, *The Last Word* (New York & Oxford: Oxford University Press, 1997); Jan Narveson, "Politics, Ethics, and Political Correctness," in Marilyn Friedman & Jan Narveson, *Political Correctness: For and Against*, Point/Counterpoint: Philosophers Debate Contemporary Issues, series edited by James P. Sterba & Rosemarie Tong (Lanham, Maryland: Rowan & Littlefield Publishers, Inc., 1995), 72-77; W. H. Newton-Smith, "Rationality, Truth and the New Fuzzies," in *Dismantling Truth: Reality in the Post-Modern World*, edited by Hilary Lawson & Lisa Appignanesi (London: Weidenfeld & Nicolson, 1989), 23-42; Kai Nielsen, "Rationality and Relativism," *Philosophy of the Social Sciences* 4 (1974): 313-331; John Searle, "The Storm over the University," in *Debating P.C.*, edited by Paul Berman (New York: Dell Publishing, 1992), 85-123, especially 112-114.

⁶The name of this argument is taken from James Rachels, *The Elements of Moral Philosophy*, 3rd edition (New York: McGraw-Hill, Inc., 1999), 23.

⁷Herodotus, *The Histories of Herodotus*, translated by George Rawlinson (New York: Appleton, 1859); the relevant passage is reprinted in Louis P. Pojman, editor, *Moral Philosophy: A Reader*, 2nd edition (Indianapolis/Cambridge: Hackett Publishing Company, Inc., 1998), 20.

⁸I am basing this claim about the popularity of the Cultural (and Individual) Differences Argument among students on (1) my personal experience of having visited and/or studied at a few colleges and universities across Canada plus (2) the personal experience of several of my colleagues. Also, some indirect support for my claim comes from Stephen A. Satris's "Student Relativism," *Teaching Philosophy* 9:3 (September 1986),

some philosophers.⁹

Herodotus presents the claim that "Custom is the king o'er all" after he reports how King Darius of Persia discussed funerary practices with some Callatians (Asian tribal people) and some Greeks.¹⁰ On the one hand, the Callatians dispose of their deceased parents by eating them; on the other hand, the Greeks dispose of their deceased parents by cremating them. Both groups are repulsed by the practice of the other, and both groups refuse to engage in the other group's practice, even though Darius offers to pay them money to entice them to engage in the other's practice. According to Louis Pojman, Herodotus's report "illustrates cultural relativism and may suggest that [for Herodotus] ethical relativism is the correct view ('culture is king')."¹¹ For some in the ancient world, then, what is right or wrong and what is good or bad depends upon -- is relative to -- the group.

Much more recently, NER has been defended by a number of social anthropologists, of whom the most famous probably is Ruth Benedict. Benedict argues that over time and in response to its own historical situation, a group "selects" from the range of possible human behaviours, thereby creating and shaping its own culture, which includes its own ethics. According to Benedict, "this selection is as nonrational and subconscious a process as it is in the field of phonetics [i.e., the 'choosing' of speech sounds by members of

193-205, and from Thomas L. Carson's "'Who Are We to Judge?'" *Teaching Philosophy* 11:1 (March 1988), 3-14. Echoing Allan Bloom, Satris and Carson lament not only the popularity but also the almost-rampant uncritical acceptance of NER (and Ethical Subjectivism) by undergraduate students. Thus, although I have no formal studies to support the above claim, it seems like a fairly reasonable claim to make.

⁹See the work of philosophers David B. Wong (in *Moral Relativity* [Berkeley: University of California Press, 1984] and Gilbert Harman (in "Moral Relativism Defended," *Philosophical Review* 84 [1975]: 3-22; and in *The Nature of Morality: An Introduction to Ethics* [New York: Oxford University Press, 1977]). Wong's and Harman's arguments are more sophisticated than the Cultural Differences Argument to be presented above. Nevertheless, the Cultural Differences Argument needs to be examined because it is important in its own right -- and because it seems very much to lurk behind and provide a foundation for Wong's and Harman's arguments. The various details of Wong's and Harman's arguments will be dealt with at appropriate junctures in this chapter.

¹⁰Herodotus, *The Histories of Herodotus*, in Pojman, *Moral Philosophy*, 20.

¹¹Pojman, *Moral Philosophy*, 20.

a social group]."¹² Appealing to the diversity of moral beliefs and practices among social groups, Benedict concludes that "morality differs in every society, and is a convenient term for socially approved habits."¹³ And so, according to Benedict, rightness and wrongness depend upon or are relative to the group.

As a defence of NER, then, the Cultural Differences Argument can be stated succinctly as follows: Social groups differ in their moral practices or beliefs (i.e., their customs)¹⁴; therefore, whether or not an act or value X is right or good for the members of a group depends (in an essential way) upon whether or not the group's belief or practice says X is right or good.¹⁵

¹²Ruth Benedict, "Anthropology and the Abnormal," *The Journal of General Psychology* 10 (1934): 72.

¹³Benedict, "Anthropology and the Abnormal," 73. It might be tempting to take Benedict's claim that morality is a convenient term for socially approved habits as an endorsement of Conceptual Moral Relativism, the theory that the very meaning of moral terms and concepts is dependent upon culture. This would be a mistake, however, since Benedict proposes that the notion that X is morally good is to be *universally understood* to mean that X is a socially approved habit. (Note: Conceptual Moral Relativism suffers from the standard criticism levelled at Naive Subjectivism [NS], namely, the problem that the obviously real disagreement between societies [i.e., individuals, in the case of NS] disappears, and the problem that criticism of other societies [other individuals on NS] becomes impossible. On Conceptual Moral Relativism, "X is right" means *X is according to my group's rules*, so when two groups appear to disagree about X's rightness, they really are not; nor can a group say of another group that X is wrong for that other group, since that is not what "X is wrong" means. But both of these consequences of Conceptual Moral Relativism seem very much to be contradicted by the facts of our experience.)

Benedict is not alone in her views. Thirty years before Benedict, Levy-Bruhl (in *La Morale et la Science des Moeurs* [Paris: 1903]) argued that moral systems "are merely rationalizations of custom," and that what is customarily done in a society is what is right. This bit of information (and translation of French to English) is from Kai Nielsen, "Ethical Relativism and the Facts of Cultural Relativity," *Social Research* 33 (1966): 533. Nielsen points out too that the following anthropologists have been, like Benedict, quite impressed with the differences of moral practices and beliefs in various societies: E. Westermarck (in *Ethical Relativity* [London: 1932]); Franz Boas (in *Anthropology and Modern Life* [New York: 1928]); and M. Herskovits (in *Man and His Works* [New York: 1950]).

¹⁴This claim is also known as Descriptive Relativism.

¹⁵Wong attempts to defend NER by appealing to a truth-conditions analysis of moral statements and then by arguing that differing societies' "adequate moral systems" (i.e., their extensions) will allow mutually conflicting moralities to be "equally true" (Wong, *Moral Relativity*, 65). In spite of appearances to the contrary, Wong's "adequate moral system" is not essentially different from Herodotus and Benedict's view that morality is but a society's socially-approved habit or custom. Why? There are three reasons: (1) the habit or custom in question is but a society's method for determining a morality which is deemed adequate by that society, i.e., it too is a so-called *adequate moral system*; (2) both the habit and the adequate moral system vary from society to society; and (3) both present their societies with putatively "true" moral principles which may

(b) Evaluation of the Cultural Differences Argument

The Cultural Differences Argument *fails*. Why? Because of the following reasons: (1) The argument's main premise seems very much to be overstated; (2) even if the premise were true, it would not provide sufficient support for the conclusion; and (3) the conclusion -- i.e., the NER thesis -- is extremely problematic.

(i) The main premise seems very much to be overstated

The premise -- that groups differ in their moral beliefs or practices or customs -- seems very much to be overstated because the *similarities* in groups' moral beliefs or practices or customs seem very much not to be taken into account. In anthropology classes, in moral issues courses, and in the news media, we tend to inspect carefully the apparent moral differences and we tend to neglect the similarities. "Hence," Francis Beckwith points out, "by focusing our attention only on disagreements, our perception has become skewed."¹⁶

conflict with the putatively "true" moral principles of other societies.

Harman's view seems not to be essentially different from Herodotus's and Benedict's view either. Harman holds that the morality of a society is a kind of agreement (which actually exists in the minds of its members). According to Harman, "There is an agreement, in the relevant sense, if each of a number of people intends to adhere to some schedule, plan, or set of principles, intending to do this on the understanding that the others similarly intend" (Harman, "Moral Relativism Defended," 4). People "agree" to a morality in the sense of simply falling into line with the others in one's group and perhaps making some behaviours conditional upon the behaviours of those others. Significantly, Harman's theory of agreement is not understood as a *justificatory* theory, which is used to defend or critique a particular moral rule; rather, it is understood as an *explanatory* theory, i.e., as simply explaining *what is the case*. This means, however, that Harman's agreements need not be rational -- i.e., they need not be justified in terms of self-interest or in terms of objective moral value, if such value exists -- and this means that the terms of agreement could be adhered to simply because that is the cultural expectation, or habit, or custom, which differs from group to group.

Thus, both Wong and Harman can be placed in the camp of Herodotus and Benedict. And, so, because Wong and Harman can legitimately be seen to be proponents of the Cultural Differences Argument, the above critique of the Cultural Differences Argument will legitimately apply to them, too. Of course, Wong's and Harman's theories have some important idiosyncrasies; these idiosyncrasies will be addressed later in this chapter.

¹⁶Francis J. Beckwith, "Philosophical Problems With Moral Relativism," *Christian Research Journal* 16:2 (Fall 1993), 23.

In other words, we seem to be misled into thinking that there are very few similarities and very many differences, when in fact the evidence strongly suggests that it is *the other way round*.

Why should we think that there are considerable similarities in the moral practices and beliefs around the world? There are five reasons.

First, as Kai Nielsen points out, "we find such eminent anthropological authorities as Kroeber, Linton, Redfield, Mead and Kluckhohn emphasizing that there are common denominators amid the variations."¹⁷ It should be acknowledged right away that Nielsen also points out that the above anthropologists' formulations of very general, common moral principles run the risk of being *too* general. Nielsen warns, "We have not discovered anything very interesting or significant when we find out that all normal people in all cultures regard some patterns of sexual behavior as bad and some ways of eating as desirable and that all cultures have some concept of murder. To say that murder is wrong and eating is good is at best minimally informative."¹⁸ Nielsen's concern is a legitimate one, as far as it goes. It very much seems, however, that the claims of the anthropologists are not as vacuous as Nielsen makes them out to be -- as the remainder of this section of the present chapter will confirm. In the meantime, it should also be noted that in addition to the anthropologists to whom Nielsen refers we find a leading contemporary social scientist, James Q. Wilson, arguing that the evidence from anthropology supports the thesis that there is a universal moral sense.¹⁹

¹⁷Nielsen, "Ethical Relativism and the Facts of Cultural Relativity," 533-534. Cf. Ralph Linton, "Universal Ethical Principles: An Anthropological View," in *Moral Principles of Action: Man's Ethical Imperative*, edited by Ruth Nanda Anshen, Science of Culture Series, Volume 6 (New York & London: Harper & Brothers, Publishers, 1952), 645-660; Robert Redfield, "The Universally Human and the Culturally Variable," *The Journal of General Education* 10 (July 1967): 150-160; Clyde Kluckhohn, "Ethical Relativity: Sic et Non," *Journal of Philosophy* 52 (1955): 663-667; Margaret Mead, "Some Anthropological Considerations Concerning Natural Law," *Natural Law Forum* 6 (1961): 51-64; A. L. Kroeber & C. Kluckhohn, *Culture* (Papers of the Peabody Museum of Harvard University). E. O. Wilson (in *On Human Nature* [New York: Bantam Books, 1979]) has identified a number of common moral features among social groups, as well.

¹⁸Nielsen, "Ethical Relativism and the Facts of Cultural Relativity," 536.

¹⁹James Q. Wilson, *The Moral Sense* (New York: The Free Press, 1993). See too James Q. Wilson, *Moral Intuitions* (New Brunswick, New Jersey, & London, U.K.: Transaction Publishers, 2000).

Second, there is the witness of the Universal Declaration of Human Rights, drawn up by the United Nations in 1948 and signed by more than 100 nations from around the globe.²⁰ This document shows (from a relatively contemporary perspective) that very many people have similar moral views. For examples, human life, liberty, and security are said to be good; and slavery, arbitrary arrest, and torture are said to be bad. (Of course, many countries do not live up to their professed standards. Nevertheless, it seems significant that those standards are at least professed.)²¹

Third, C. S. Lewis's survey of the major moral codes of the ancient Babylonians, Egyptians, Chinese, Jews, Hindus, Romans and others very much seems to show that the peoples of the world *in the past* have a great many fundamental moral similarities, too.²² Indeed, as anthropologist Ralph Linton observes, "Information is now available on a large number of cultures which are so widely distributed in time and space that they provide an adequate sample for comparative studies. There is no society on record which does not have an ethical system." Linton adds: Even though "the relative importance attached to particular values differs considerably from one society to another and even at different points in the history of the same society," the fact remains that "[t]he values reflected in ethical systems seem to be much the same everywhere."²³

²⁰For an online copy of the Universal Declaration of Human Rights, see the following website: <http://www.un.org/Overview/rights.html>. Or see Appendix A of Brian Orend, *Human Rights: Concept and Context* (Peterborough, Ontario: Broadview Press Ltd., 2002), 244-250. For this dissertation, the idea of using the United Nations' Universal Declaration of Human Rights as evidence for the claim that there are considerable similarities in moral practices and beliefs around the world is gotten from Paul Chamberlain, *Can We Be Good Without God? A Conversation About Truth, Morality, Culture & A Few Other Things That Matter* (Downers Grove, Illinois: InterVarsity Press, 1996), 80.

²¹See too the American Bill of Rights (1789), the French Declaration of The Rights of Man and Citizen (1789), and the Canadian Charter of Rights and Freedoms (1982), copies of which can be found in Appendix A of Orend, *Human Rights*, 241-242, 242-244, and 250-258, respectively.

²²C. S. Lewis, *The Abolition of Man* (Oxford: Oxford University Press, 1943; reprint, New York: HarperCollins Publishers, 2001), 83-101.

²³Linton, "Universal Ethical Principles: An Anthropological View," 658-659.

Fourth, much apparent moral diversity may be due to differences in *factual* beliefs as opposed to differences in *moral* beliefs. Moral values or principles may be the same yet be differently *applied* because of variations in factual beliefs. As James Rachels points out, when we ask *why* a moral practice occurs, we can see that the extent of the apparent difference in moral values or principles may be overestimated. Rachels defends his point with the following cogent argument:

Consider a culture in which people believe it is wrong to eat cows. This may be a poor culture, in which there is not enough food; still, the cows are not to be touched. Such a society would *appear* to have values very different from our own. But does it? We have not yet asked why these people will not eat cows. Suppose it is because they believe that after death the souls of humans inhabit the bodies of animals, especially cows, so that a cow may be someone's grandmother. Now do we want to say that their values are different from ours? No; the difference lies elsewhere. The difference is in our belief systems, not in our values. We agree that we shouldn't eat Grandma; we simply disagree about whether the cow *is* (or could be) Grandma.²⁴

And, as Pojman points out: "One tribe in East Africa throws its deformed children into the river because it believes that such infants *belong* to the hippopotamus, the god of the river. We consider this a false belief, but the point is that the same principles of respect for . . . human life are operative...."²⁵ Thus, because of differences in belief concerning the facts to which moral principles are applied, the apparent diversity in moral principles is reduced.

Fifth, and finally, much apparent moral diversity may be due to differences in the *circumstances* in which moral principles are applied as opposed to differences in the moral principles themselves. As Chamberlain points out, "The same moral principles operating in vastly different circumstances can produce very different actions."²⁶ For example, in the Inuit practice of female infanticide, which seems morally

²⁴Rachels, *The Elements of Moral Philosophy*, 27-28.

²⁵Louis P. Pojman, *Ethics: Discovering Right and Wrong*, 2nd edition (Belmont, California: Wadsworth Publishing Company, 1995), 36.

²⁶Chamberlain, *Can We Be Good Without God?*, 86.

abhorrent to us, the apparent difference in morality is due primarily to the harsh physical environment. Indeed, the following combination of circumstances in the Inuit's life-situation conspire to force what is to us a radical solution:²⁷ (1) the Inuit cannot farm the land on which they live, which means that they are a nomadic, hunting people; (2) a mother can usually carry at most one baby while she travels, which means that having more than one baby is an extreme practical difficulty; (3) babies are breast-fed up to four or more years of age, which means that having more than one baby creates a considerable nursing problem (even in the best of times); (4) males, because they are usually the physically stronger of the two sexes, are the hunters and food gatherers, which means males are needed for the family's survival more than females; and (5) males, as hunters and food gatherers, take more physical risks and consequently have a higher young-adult mortality rate than females. Consequently -- to keep the number of hunters and food gatherers high -- a great pressure is placed on parents to practice female infanticide. In other words, as Chamberlain points out (referring to the above five points), "it doesn't look like [the Inuit parents] killed more female babies than males because they loved or respected them less. This was simply one of the harsh measures necessary for survival as a people."²⁸ And so, as Rachels points out, "the raw data of the anthropologists can be misleading; it can make the differences in values between cultures appear greater than they are."²⁹

Thus, the premise -- that groups differ in their moral beliefs or practices or customs -- seems very much to be overstated.³⁰

²⁷The subsequent list of circumstances is gleaned from Peter Freuchen, *Book of the Eskimos*, edited by Dagmar Freuchen (Cleveland & New York: The World Publishing Company, 1961) and from E. Adamson Hoebel, *The Law of Primitive Man: A Study in Comparative Legal Dynamics* (Cambridge: Harvard University Press, 1954; New York: Atheneum, 1979); cf. Rachels, *The Elements of Moral Philosophy*, 28-29.

²⁸Chamberlain, *Can We Be Good Without God?*, 86.

²⁹Rachels, *The Elements of Moral Philosophy*, 29.

³⁰It should be pointed out that above it has not been argued that *all* moral principles are the same among the various groups; it has been argued merely that there are more similarities than the Cultural Differences Argument would lead us to believe. Also, it should be pointed out that this chapter has gone on at length (above) in arguing that the premise (that groups differ in their moral beliefs or practices or customs) seems

(ii) Even if the premise were true, it would not provide sufficient support for the conclusion

But even if the premise (that groups differ in their moral beliefs or practices or customs) were true, it would not provide sufficient support for the NER thesis (i.e., that whether or not an act or value X is right or good for the members of a group depends in an essential way upon whether or not the group's belief or practice says X is right or good). Why? The reasons are as follows: (1) The NER thesis requires that there are no objective trans-cultural moral standards, but (2) from the fact that groups differ or disagree about their moral practices or beliefs, it simply does not follow logically that there are no objective trans-cultural moral standards. The point: Even amidst a diversity of moral practices and beliefs, it is not unreasonable to think that one group's moral practices or beliefs are objectively and trans-culturally right whereas another group's moral practices or beliefs are mistaken.

To press this point home, Rachels considers a disagreement that might exist between two societies concerning the shape of the earth:

In some societies, people believe the earth is flat. In other societies, such as our own, people believe the earth is (roughly) spherical. Does it follow, *from the mere fact that they disagree*, that there is no "objective truth" in geography? Of course not; we would never draw such a conclusion because we realize that, in their beliefs about the world, the members of some societies might simply be wrong. There is no reason to think that if the world is round everyone must know it.³¹

Rachels may be pressing the point too hard. The proponent of NER does not believe that disagreement about morals shows that there is no objective truth at all concerning morals; rather, the NER proponent believes that the objective truth about morals is that they are relative to culture. Still, Rachels' point remains in the sense that there is no reason to think that disagreement about the world's shape logically implies that the world's

to be overstated because it very much seems that the apparent truth of this premise is *psychologically* very persuasive for *many people* (even though, as will be shown in the next section of this chapter, the truth of this premise does not provide sufficient support for the NER thesis).

³¹Rachels, *The Elements of Moral Philosophy*, 24.

shape is not round. In other words, if a universal objective moral principle were to exist, it could very well exist independently of our moral beliefs or practices, and this means that a diversity of moral beliefs or practices simply constitutes weak evidence for the NER thesis. For NER to stand, NER requires that the non-existence of any universal objective moral principles *be shown*; however, the appeal to diversity of moral practice and belief does not do this. Thus, even if the premise -- that groups differ in their moral beliefs or practices or customs -- were true, it would not provide the needed support for the NER thesis.

At this juncture, however, it might be argued, as David Wong seems to argue, that the premise *would* provide strong support for the NER thesis if the differences in moral beliefs or practices or customs were *irresoluble*.³² But, as Narveson correctly points out (via rhetorical question): "[H]ow could one ever plausibly claim to *know* that a disagreement is 'irresoluble'? We can know that it hasn't been resolved as of time *t*, that people have discussed it a good deal and not come to any conclusion, and so on. But how could we know that no one will ever think of something that settles the issue?"³³ Obviously, as Narveson also points out, some sort of theory is necessary to explain why the disagreement cannot be resolved. But, as Narveson points out as well (rightly, it seems), such a theory is *not* forthcoming. Why? Because, according to Narveson, the *concept* of morality includes the idea that morality has a *practical purpose* -- namely, that of *resolving conflicts*. Hence, Wong's objection does not fly.³⁴ And thus (again), even if the premise -- that groups differ in their moral beliefs or practices or customs -- were true, it would not provide the needed support for the conclusion that morals are essentially a function of the group.

Yet, it seems, someone might still try to object to our conclusion (i.e., that even if the premise -- that

³²Wong seems to argue this in several parts of his *Moral Relativity*; see especially his discussion of abortion, pp. 190-198.

³³Jan Narveson, "Critical Notice of David B. Wong *Moral Relativity*," *Canadian Journal of Philosophy* 17:1 (March 1987): 242-243.

³⁴Interestingly, Wong himself seems to understand morality to include the notion of having the practical purpose of resolving interpersonal conflicts. According to Wong, "morality [is] an action-guide with a subject matter that pertains to interpersonal relations" (Wong, *Moral Relativity*, 216; see also page 38).

groups differ in their moral beliefs or practices or customs -- were true, it would not provide sufficient support for the NER thesis) on a type of Moorean grounds. To make this possible objection sensible, it may be of some help here first to review G. E. Moore's "relativism."³⁵ Moore holds that we are to do what will promote the better overall, long-range results; however, he thinks the calculation of these results to be difficult in the extreme -- too difficult to calculate, in fact. Nevertheless, according to Moore, we do know very well how others will react to our action if our action goes against a group's moral rules, and these reactions, in Moore's view, seem to outweigh any deviation from the rules (even when the rules are bad). Hence, according to Moore, we should follow the group's rules. Moore, in other words, is not a *fundamental* moral relativist (i.e., he does not locate the essential rightness or wrongness of an act in its relation to a group's rules), but he is a moral relativist *in effect*. Now (and here is the objection, finally), it seems that someone might be tempted to argue that, because the actual rightness or wrongness of an act is unknowable due to Moore's calculation difficulties³⁶, the premise that groups differ in their moral beliefs or practices or customs -- if true -- *would support* NER (in Moore's non-fundamental sense).

How should we respond to such an objection? It seems that we would have to challenge the claim that the actual rightness or wrongness of an act *really is* unknowable when there is a conflict between moralities. Why? The reason is that the fact (again) that inherent to the concept of morality is the idea that morality has a practical purpose -- that moral conflicts are to be *resolved*. The internal conceptual pressures of morality push resolutions beyond even group borders. Conflicting moral principles could not be said to be both right in the name of morality, as the moral relativist would have us think; rather, in the name of morality, the conflict *would get worked out*. And this seems to imply that a *rational* morality would be

³⁵What follows is from G. E. Moore, *Principia Ethica*, revised edition, edited by Thomas Baldwin (Cambridge: Cambridge University Press, 1903, 1993), chapter 5.

³⁶Or, say, because of an alleged "moral blindness" due to sin perhaps.

sought, i.e., a morality which appeals to the interests of everyone.³⁷ Thus, even if moral principles were not knowable in some deep sense (e.g., due to Moore's calculation difficulties or some other form of "moral blindness"), the fact of moral differences between social groups would not provide the needed support for the NER thesis.

(iii) The conclusion is extremely problematic

To show that the NER thesis -- that whether or not an act or value X is right or good for the members of a group essentially depends upon whether or not the group's belief or practice says X is right or good -- is extremely problematic, it will be assumed, for the sake of argument, that the NER thesis is true, and the consequences will be examined.

If NER is true, what follows?³⁸ Answer: Some very serious problems.

³⁷The idea that there are internal conceptual pressures arising from the notion of morality which point in a rational conflict-resolving direction is from Jan Narveson, "Justifying a Morality," in *Ethics & Justification*, Douglas Odegard, editor (Edmonton: Academic Printing & Publishing, 1988), 257-276. When Minimal Intuitionism is discussed later in this chapter, it will be argued that Narveson's prudential, in-everyone's-interest notion of "rational" does not exhaust the notion of rationality. Intuited objective moral value will play a role in rationality too.

³⁸In assuming that the NER thesis is true, we are assuming, in other words, that there are no absolute or universal objective moral standards. That there are no absolute or universal objective moral standards should not be misunderstood as meaning that there are no moral principles that hold regardless of circumstance. As Narveson correctly points out, such an understanding of absolute moral standards has the shortcoming of "confus[ing] the absolutist/ relativist question with the very different question whether there are any moral principles that hold in more than just a *prima facie* way" (Narveson, "Critical Notice," 236).

It seems reasonable to think that absolute or universal objective moral principles need not be understood in such a strong way, but with the qualification added that if the classic Christian concept of God were instantiated in reality, then the very general moral principle "honour God" would seem *always* to apply. For an interesting look at how a couple of Christian philosophers seem to apply some *prima facie* principles under the general moral principle *honour God*, see J. P. Moreland & Norman L. Geisler, *The Life and Death Debate: Moral Issues of Our Time* (Westport, Connecticut: Praeger, 1990). Moreland and Geisler do not explicitly state the principle that I attribute to them, but it very much seems to be assumed in their work as *the* fundamental moral principle which stands behind all their other moral principles. They seem to take the Ten Commandments in a hierarchical order of importance: i.e., the first four, which have to do with humankind's relationship to God, are "more absolute" as it were than the remaining six, which have to do with relationships between people.

First, the NER thesis has a factual problem. If NER is true, then it is not possible for a society to undergo moral reform. J. P. Moreland and Norman L. Geisler explain:

Moral reformers are members of a society who stand outside that society's code and pronounce a need for reform and change in that code. However, if an act is right if and only if it is in keeping with a given society's code, then the moral reformer is by definition an immoral person, for his views are at odds with those of his society. But any view which implies that moral reformers are impossible is defective.³⁹

Why is it that any view which implies that moral reformers are impossible is defective? (1) Because it is a historical fact that moral reform occurs in a society (e.g., William Wilberforce,⁴⁰ Jesus of Nazareth⁴¹, Martin Luther King, Jr.⁴², etc.); and (2) because, as Rachels points out, "few of us think that our society's code is perfect; we can think of ways it might be improved."⁴³ NER, then, does not square with the relevant facts.

Harman, however, seems to think that on NER moral reform is possible in the case of, say, slavery.

Why? Harman explains as follows:

[I]f slavery is wrong in the society, it is wrong because of the rules that are socially enforced with respect to people who are not slaves. These rules may really apply to everyone and not just to non-slaves, even though members of the society do not recognize this because they falsely believe that there is an important relevant difference between slaves and other people and therefore think of the slaves as, say, beasts of burden rather than as people. . . . A social

³⁹Moreland & Geisler, *The Life and Death Debate*, 4.

⁴⁰Wilberforce (1759-1833) spent 45 years of his life working to eliminate slavery in England. Slavery was morally acceptable in England during Wilberforce's time, but Wilberforce and his colleagues argued that it was wrong. For more on Wilberforce's work as a moral reformer, see John Pollock, *Wilberforce* (London: Constable, 1977) and Kevin Belmonte, *Hero for Humanity: A Biography of William Wilberforce* (Colorado Springs, Colorado: Navpress, 2002).

⁴¹That Jesus of Nazareth is a moral reformer who stood outside of a society's moral code and pronounced a need for change in that code can be seen in the following passages: Matthew 5:21-22, Matthew 5:27, Matthew 5:33-37. Loosely paraphrased, in these passages Jesus tells his listeners "You have heard moral principles A, B, and C; but I tell you that these are to be replaced by deeper principles X, Y, and Z."

⁴²See Martin Luther King, Jr., *A Testament of Hope: The Essential Writings of Martin Luther King, Jr.*, edited by James Melvin Washington (San Francisco: Harper & Row, Inc., 1986).

⁴³Rachels, *The Elements of Moral Philosophy*, 26.

custom theory of morality [i.e., NER] can therefore suppose that morality derives from principles that are socially enforced without having to assume that what is socially enforced is always right. Such a theory of morality is not committed to saying that, if there is a custom of slavery, slavery must be right. It is only committed to saying that, if slavery is wrong, it is wrong with reference to some custom or other that is socially enforced.⁴⁴

In other words, Harman thinks that on NER we can engage in moral reform by encouraging a society to live up to its moral code (when it is not) via clarification and correction of the relevant beliefs. Harman seems not to realize, however, that as important as such an endeavour might be, it is "reform" in a very *weak* sense, i.e., not in the relevant sense of *reforming or changing the code itself*. Moreover, and more importantly, Harman seems not to realize that the custom that is *also* socially enforced in his example is the custom of falsely believing that there is an important relevant difference between slaves and other people. On Harman's own lights, then, in spite of whether or not slavery is based on false beliefs -- i.e., in spite of slavery's wrongness and the accompanying mistaken beliefs concerning this -- because slavery is right with reference to some custom that is socially enforced, slavery is right. In other words, a stalemate occurs: slavery is *both right and wrong*. Hence, *pace* Harman, moral reform is not possible on NER.

Second, NER has a very difficult practical problem. According to NER, what the social group (i.e., culture or society or tribe) says is right is right. But the question quickly arises: *Which* social group should one listen to? The social group into which one was born? The social group in which one was raised? Or the social group one presently occupies? And what about the fact that most of us belong to *more than one* social group *at one time*? As Walter Stace points out, "'In Rome do as Rome does' may seem as good a rule in morals as it is in etiquette. But can we stop there? Within the village are numerous cliques each having its own set of ideas. Why should not each of these claim to be bound only by its special and peculiar moral standards?"⁴⁵ When visiting a university in Russia not long ago, the author of this dissertation asked the

⁴⁴Harman, *The Nature of Morality*, 95.

⁴⁵Walter T. Stace, *The Concept of Morals* (New York: The Macmillan Company, 1965), 52-53.

following question: If NER is true, then what should *I* do, since I was born in Venezuela, grew up in a Dutch family, became a Canadian as a teen, attend a protestant-evangelical Christian church, study at a secular university, teach at a Christian college, and am presently visiting a recently Marxist country? In other words, the concept of "social group," which is crucially important for NER, is terribly ambiguous; and so questions of the above sort complicate NER greatly -- to the extent that NER leaves us puzzled and with *no* guidance.

That the question -- *Which society?* -- needs to be answered can be seen by the following less tame real-life example. Not long ago in the U.S., there was a legal case concerning two American parents who killed their teen-aged daughter because she did not marry the man the parents wanted her to marry. The parents were charged with murder. However, the parents attempted to defend the morality of their act on the grounds that they were *Palestinian-Americans*. Neal Gabler reports: "As a friend [of the parents] said, 'We follow our religion.' If the parents hadn't disciplined their wayward daughter, 'they'd be embarrassed in front of everybody.' In short: It's a Palestinian thing. You wouldn't understand."⁴⁶ In other words, although it is strange to North Americans, according to Palestinian custom it is morally permissible for a father and mother to kill their daughter if she refuses to marry the man the family has arranged for her to marry. Clearly, then, NER needs to be able to say *which* social group is the one to listen to here, and *why*, but it does not. (Also, NER does not help matters simply by saying *both* social groups are right. More on this last point in my next paragraph.)

Third, NER has an *additional* practical problem. As was pointed out earlier, the concept of morality includes the idea that morality has the practical purpose of resolving conflicts of interest. But, if NER is true, then it is possible for individuals A and B to disagree about act X's moral status and yet *both* be right. But, asks Narveson, "how on earth are you going to resolve a conflict between A and B about whether A ought to do X, where A thinks he ought and B that A ought not, by telling them both that they're *right*? How are you going to provide behavioural control or guidance to someone by telling both to do and *also not to do* X in

⁴⁶Neal Gabler, "Moral Relativism? 'You Don't Get It,'" *Los Angeles Times*, June 14, 1992, M1.

C?"⁴⁷ NER, in other words (Narveson's), is *useless*.

Wong, as noted previously, attempts to defend NER by arguing that the "adequate moral systems" of different societies will allow mutually conflicting moralities to be "equally true." (Because Wong is involved in a truth-conditions analysis, "equally true" is to be understood as *both are true* or *all are true*; not as *as true as*, where both might be false.) Significantly, as Narveson goes on to point out: "there is something *very peculiar* about [the thesis that mutually conflicting moralities, that is, ones which yield contrary prescriptions about actions, can both be true]. If we are going to accept that a certain kind of statement has truth-values, then what can it mean to accept also that certain 'conflicting' pairs of them are both *true*?"⁴⁸ It means, as Narveson goes on to answer, that we are committed to "accepting that it may in some cases be *true* that a given individual, A, in a particular situation and asserted against the same background of facts, C, both ought and also ought *not* to do a certain particular act X."⁴⁹ And, adds Narveson, "This seems to me bereft of significance, and it will certainly seem so to A."⁵⁰ Individual A, in other words, finds in moral relativism *no* guidance and *no* possible solution concerning X.

Although the uselessness problem is a practical one, it is also a *logical* problem for NER. Why? Because the concept of morality implies conflict resolution but NER implies the logical opposite.

NER is useless, then, as Narveson points out (colourfully), "either because it is inconsistent, or because instead of solving problems, it simply stares blankly at them and shrugs them off as insoluble."⁵¹

Fourth, NER has a second logical problem. According to NER, whatever moral principles held by a society as *right are right for that society*. Significantly, this allows for the possibility of some societies to

⁴⁷Narveson, "Critical Notice," 246.

⁴⁸Narveson, "Critical Notice," 237-238.

⁴⁹Narveson, "Critical Notice," 238.

⁵⁰Narveson, "Critical Notice," 238.

⁵¹Narveson, "Critical Notice," 244-245.

hold *absolute culturally-transcendent principles*. Clearly, this is not merely a hypothetical possibility: very often in real life when a group holds X to be Wrong, the members are saying *more* than "X is merely not in accordance with my tribe's rules" -- they are saying "X is Wrong for *other* tribes too." (For substantiation of this point, think of the values held by evangelical Christian groups, or fundamentalist Muslims, or humanists who have signed the Humanist Manifesto II.⁵²) Because the (assumed) truth of NER implies the truth of the possibility of moral absolutism, from the truth of NER we can logically derive the following contradiction: Whether or not act X is right (or wrong) for the members of a group G depends (in an essential way) upon whether or not G's belief or practice says X is right (or wrong) *and it is not the case* that whether or not act X is right (or wrong) for the members of G depends (in an essential way) upon whether or not G's belief or practice says X is right (or wrong). Thus, because contradictions are necessarily false, and because falsehoods can be logically derived only from other falsehoods, it follows that our (for the sake of argument) assumption that NER is true must be false -- which means NER is false.

Fifth, NER does not provide a satisfactory answer to a very important question -- namely, *Why obey the tribe's rules?* If the tribe answers that it has ultimate authority in matters of morals, then the basis of this authority needs to be examined. If the tribe answers that it or its representatives *always* know best, the answer is patently false (think of *any* society and its representatives for a substantiation of this point⁵³). If the

⁵²That humanists who have signed the Humanist Manifesto II are saying *more* than "X is merely not in accordance with my tribe's rules" can be seen from the following excerpts. According to article 5 of the Humanist Manifesto II, "The preciousness and dignity of the individual person is a central humanist value." According to article 6, "short of harming others or compelling them to do likewise, individuals should be permitted to express their sexual proclivities and pursue their life-styles as they desire." According to article 11, "The principle of moral equality must be furthered...." According to article 12, "We deplore the division of humankind on nationalistic grounds. We have reached a turning point in human history where the best option is to *transcend the limits of national sovereignty* and to move toward the building of a world community." According to article 13, "This world community must *renounce the resort to violence and force* as a method of solving international disputes." And so on. (See Paul Kurtz, editor, *Humanist Manifestos I & II* [Buffalo: Prometheus Books, 1973].)

⁵³Included in this claim would be all religious societies and their representatives (unless the representatives were omniscient and somehow demonstrated themselves to be so).

authority rests on superior strength, i.e., the threat of force, then the justification of the use of this force needs to be examined. As Narveson points out, "A fight decides who wins, but, obviously, it doesn't decide who's *right*. And who's right is just what we want to know! So we are left with a serious question: what is the underlying reason that makes society's rules right -- if they are?"⁵⁴ It makes *good sense*, then, to ask: What good reasons can the relativist give us for thinking that we should always obey our society's rules? Significantly, any non-question-begging answer to these questions leads us to reasons *other than* mere accordance to culture. But this means that the variable of culture is no longer the fundamental variable.

At this juncture, it is appropriate to acknowledge that NER is often held because it purportedly implies or promotes tolerance. This is an extremely problematic view, however. As Tom Beauchamp observes,

If we interpret normative [ethical] relativism as *requiring* tolerance of other views, the whole theory is imperiled by inconsistency. The proposition that we ought to tolerate the views of others, or that it is right not to interfere with others, is precluded by the very strictures of the theory. Such a proposition bears all the marks of a *non-relative* account of moral rightness.... A moral commitment to tolerance of other practices and beliefs thus leads inexorably to the abandonment of normative [ethical] relativism.⁵⁵

Also, it is questionable that NER promotes tolerance. Why? Because NER provides legitimacy to *non-tolerant* social moralities, as will be seen in the next paragraph.

NER also has a profoundly important sixth problem: namely, the fact that NER ends up giving support and legitimacy to what seem very obviously to be *evil* regimes. (The referent here is to the uncontroversial *extension* of the term "evil": i.e., the reference is to the elements of the class of situations to which the term clearly "evil" applies.⁵⁶) For example, if NER is true, then it becomes impossible for groups

⁵⁴Jan Narveson, "20th C. Ethical Theory" (University of Waterloo: unpublished manuscript, no date), 32.

⁵⁵Tom Beauchamp, *Philosophical Ethics: An Introduction to Moral Philosophy* (New York: McGraw-Hill, 1982), 42.

⁵⁶In this way one can avoid making an *intensional* definition of evil, which, as Michael Peterson observes, "could be proposed and debated indefinitely" (Michael Peterson, *God and Evil: An Introduction to the Issues* [Boulder, Colorado: Westview Press, 1998], 10). Although Peterson seems to be exaggerating a wee bit, his

such as our own to criticize the well-known Nazi atrocities against Jews and others which occurred in World War II Germany. On the NER hypothesis, if the Nazi culture says that genocide is right, then genocide *is* right for them, and so we have to tolerate their genocidal practices. What is more, if NER is true, then we cannot condemn Stalin's enslavement and murder of millions in the former Soviet Union. Nor can we condemn Pol Pot's murder of millions in Cambodia. Nor can we condemn Saddam Hussein's murder (via poisonous gas) of whole Kurdish villages in Northern Iraq or his putting Kurds in a sack, lifting them up by helicopter and dropping them to their death in a nearby lake.⁵⁷ Nor can we condemn the September 11th terrorist murder of three thousand people in New York's World Trade Centre. And, going back in history somewhat, nor can we condemn the atrocities of the Christian Crusades and Inquisition. And so on. In view of our pre-theoretic moral intuitions, these deeds are clearly evil and wrong.

Thus, the conclusion -- i.e., the NER thesis -- is extremely problematic, to say the least.⁵⁸

point -- that *much* work needs to be done to set out an uncontroversial intensional definition of evil -- is well-taken.

⁵⁷The above information about Saddam Hussein's atrocities is reported by my wife's and my next-door neighbours, who are Kurds from northern Iraq. The occurrence of these sorts of atrocities in Iraq has been confirmed by newspaper reports as (at the time of writing) the U.S.-led war in Iraq has toppled Saddam Hussein's regime. For example, see Brian Caldwell, "Two Iraqi refugees see war as necessary for peace," *The Record*, March 21, 2003, W1-W2.

⁵⁸Pojman provides an additional criticism of Harman's NER. According to Pojman, "in tying obligation to motivation, [Harman] makes the notion of interpersonal contract largely irrelevant to the logic of agent assessment" (Louis P. Pojman, "Gilbert Harman's Internalist Moral Relativism," *The Modern Schoolman*, 68 [November 1990]: 29). Why? Because without some element of external sanction with which to reckon, the agent has (on Harman's view) no reason to maintain a contract. Let me explain. In the case of finding ourselves belonging to two groups and having conflicting agreements, Harman's solution is that we "must choose the group which is most important to us and act on its conventions" (Harman, *The Nature of Morality*, 113). But, as Pojman points out, this means that "In the end Harman's account reduces to Moral Solipsism, for I can in these circumstances become a 'group of one' and so choose any principle I feel like, [since] there are no logical constraints on what is to count as a moral principle" (Pojman, 28). Significantly, then, when it comes to Harman's combining of this internalism with his contractualism, this means that "[e]ssentially, there is no reason in itself to keep an agreement with others unless one feels like it" (Pojman, 29). And so, Pojman challenges Harman's admission that "[internalism] tends toward subjectivism" (Harman, 92; emphasis added) by pointing out (rightly) that Harman's internalist moral relativism in fact seems very much to *reduce* to Ethical Subjectivism. (Ethical Subjectivism will be examined in the next major section of this chapter.)

(c) Sub-Conclusion

The goal in this section has been to examine NER. NER's primary defence, the Cultural Differences Argument, was set out; the premise of the Cultural Differences Argument was shown to be very apparently overstated; it was shown that even if the premise were true it would not provide sufficient support for the NER thesis; and it was shown that the NER thesis is extremely problematic, logically, factually, and morally. NER, therefore, is a poorly-supported as well as seriously-flawed ethical theory, and therefore should be dismissed.

B. Ethical Subjectivism

At this juncture, the proponent of NER, in his/her continued denial of objective moral values, might take refuge in Ethical Subjectivism (ES). What is ES? According to Rachels, "This is the basic thought behind Ethical Subjectivism. Ethical Subjectivism is the idea that our moral opinions are based on our feelings, and nothing more."⁵⁹ In other words, ES holds that no objective moral values or principles exist: morals are, ultimately, emotion-based. ES, then, is the ethical theory that moral principles and values are essentially a function of one's feelings, i.e., that whether or not an act X is right, or whether or not some thing X is good, depends in an essential way upon whether or not the individual *feels* X is right or good. On ES, a moral judgment is merely an expression of personal taste.

ES as understood here is also known as sophisticated or non-naive subjectivism: a.k.a. Emotivism. It is of some interest to note that naive subjectivism is the view that moral utterances *report* subjective states, such as "I like X." However, if this reportive view is correct, then in an apparent moral disagreement, wherein A holds X is right and B holds X is wrong, there can be no real moral disagreement between A and B: A and B would have to agree that A likes X and B does not like X. Thus, naive subjectivism is a flawed moral view.

⁵⁹Rachels, *Elements of Moral Philosophy*, 38.

It is interesting to note too that in the 20th century, ES/Emotivism came to its heyday via the work of A. J. Ayer and Charles L. Stevenson.⁶⁰ ES can be understood as a byproduct of Logical Positivism and its crucially-important verificationist principle. According to the verificationist principle, a claim is a genuine truth claim if and only if it is either empirical (testable by sense experience) or analytic (true by definition). Because moral claims fit neither category, they were said not to be genuine truth claims. And, because we know language has functions other than truth reporting, functions such as exhorting and exclaiming, moral utterances were held not to *describe* facts but to *express* emotions or *commend* attitudes concerning a particular issue (and perhaps thereby stir the emotions or change the attitudes of others so they would follow suit). Of course, the verificationist principle failed to satisfy its own criterion of meaningful discourse, thereby significantly weakening the foundations for ES. Still, though, ES seems to be a view held by some today, as was noted previously.⁶¹

In our investigation of ES we will look only at the ES thesis itself, not the arguments given in support of ES. A proponent of NER who decides to retreat to ES from NER might be tempted to restructure the Cultural Differences Argument (which was examined in the previous main section) as the *Individual Differences Argument* by substituting social groups with individuals (Harman's "groups of one"). The Cultural Differences Argument defends NER on the ground that there is great diversity of moral practice and belief *among tribes or societies*; the Individual Differences Arguments would defend ES on the ground that there is great diversity of moral practice and belief *among individuals*. However -- and too bad for the ES proponent who might be persuaded by the Individual Differences Argument -- many of the above criticisms

⁶⁰A. J. Ayer, *Language, Truth and Logic* (1936; New York: Dover, 1996); Charles L. Stevenson, *Ethics & Language* (New Haven: Yale University Press, 1944).

⁶¹For a brief discussion of ES vis-à-vis Logical Positivism, see Harry J. Gensler, *Ethics: A Contemporary Introduction*, Routledge Contemporary Introductions to Philosophy, series edited by Paul K. Moser (London & New York: Routledge, 1998), chapter 5. See too Oswald Hanfling, "Logical Positivism," in *Philosophy of Science, Logic and Mathematics in the Twentieth Century*, edited by Stuart Shanker, Routledge History of Philosophy, Volume 9, series edited by G. H. R. Parkinson & S. G. Shanker (London & New York: Routledge, 1996), 193-213.

of the Cultural Differences Argument's premise and that premise's support relation for NER can, without losing their force, be readily transferred to the Individual Differences Argument. As is the case with groups, the extent of the disagreement between individuals is not at all as great as may first appear, so the claim that there is great disagreement is overstated. Also, as is the case with disagreement between groups, mere disagreement between individuals about objective moral principles is not sufficient grounds for showing that there are no objective moral principles. This dissertation will be content, then, not to rehearse additional arguments to show that ES is weakly supported; rather, it will be argued merely that ES *per se* is a seriously-flawed moral thesis.⁶²

1. Assessing the Consequences of Ethical Subjectivism

To show that the ES thesis is a seriously-flawed moral thesis, the *reductio ad absurdum* strategy will be employed: it will be assumed, for the sake of argument, that ES is true, and the consequences will be examined -- and the absurdity of these consequences will show that ES is not true.

If ES is true, what follows? Interestingly, ES leads to some problems very similar to NER.

Paralleling NER's problem of moral reform, on ES an individual's moral principles and values would always be right and good and could only be criticized if the individual deviated from the previously accepted moral principles and values (assuming the individual did not feel hypocrisy was acceptable, which might be too big an assumption to make in view of the strength of one's feelings when one feels like violating one's previously-held principles⁶³). In other words, intra-personal moral criticism is lost. But, surely, it is

⁶²For criticisms of some arguments in favour of ES/Emotivism, see Grant C. Sterling, *Ethical Intuitionism and Its Critics*, New Perspectives in Philosophical Scholarship: Texts and Issues, series edited by James R. Duerlinger (New York: Peter Lang Publishing, Inc., 1994), 30-34. Sterling thinks ethical language is plainly about objective facts of the world, and not merely an instrument whereby we act out our subjective inclinations (although we might do such acting out because of the objective fact of the world).

⁶³There would seem to be sort of "snowball" effect here: the more one feels like violating one's previously-held principle, the less one would feel that the previously-held principle was of value, so the less resistance

reasonable to suspect that an individual's moral principles and values are *not* always right and good. We know from experience that it is possible to be mistaken on moral matters.

Paralleling NER's *uselessness* problem, ES is useless in resolving conflicts of interest because ES says *all* parties in a conflict are right if they feel they are right. But, of course, the problem in the first place is that they all feel that they are right! Consider the following story from Christina Hoff Sommers (in this passage the words "values clarification" can be understood as *ES clarification*):

One of my favorite anecdotes concerns a teacher in Massachusetts, who had attended numerous values-clarification workshops and was assiduously applying their techniques in her class. The day came when her class of sixth graders announced that they valued cheating and wanted to be free to do it on their tests. The teacher was very uncomfortable. Her solution? She told the children that since it was *her* class, and since she was opposed to cheating, they were not free to cheat. "I personally value honesty; although you may choose to be dishonest, I shall insist that we be honest on our tests here. In other areas of your life, you may have more freedom to be dishonest...."⁶⁴

As Beckwith and Gregory Koukl point out, however, "If the [above-mentioned] teacher values honesty, then [on ES] *she* should be honest without imposing her values on her students. They should still decide for themselves, which they had."⁶⁵ In other words, either ES leads to the imposition of the subjectively-based values of the powerful onto the weak (i.e., the teacher simply imposes her subjective values onto the children) or ES leads to anarchy (the students and the teacher choose various values and live accordingly). On ES both alternatives are equally legitimate. And so, in resolving conflicts, ES is not helpful at all.

Paralleling NER's logical problem, ES also generates a logical contradiction. On ES whatever the

there would be to violating the principle, and so the more (relatively speaking) one would feel like doing it.

⁶⁴Christina Hoff Sommers, "Teaching the Virtues," *Teaching Philosophy*, Newsletter of the American Philosophical Association (Fall 2001); cf. Christina Hoff Sommers, "Teaching the Virtues," in *Vice & Virtue in Everyday Life*, 5th edition, edited by Christina Sommers & Fred Sommers (Fort Worth, Texas: Harcourt College Publishers, 2001), 676.

⁶⁵Francis J. Beckwith & Gregory Koukl, *Relativism: Feet Firmly Planted in Mid-Air* (Grand Rapids, Michigan: Baker Books, 1998), 77.

individual *feels* is right or good *is* right or good. But this logically implies that some individuals may hold to an objective, trans-personal moral principle or value, and, because they feel it to be right or good, it *is* right or good. But this logically implies that it is *not* the case that whatever the individual feels is right or good is right or good. So, given ES, it follows logically that it *is* the case that whatever the individual feels is right or good is right or good *and* (at the same time and in the same respect) that it *is not* the case that whatever the individual feels is right or good is right or good. So, from the assumed truth of ES a *bona fide* contradiction can be logically deduced, which means that ES cannot be true.

Paralleling NER's problem of being unable to criticize obviously evil regimes, on ES we cannot say that individuals who engage in obviously evil acts are doing something that is wrong or bad. In other words, on ES *inter*-personal criticism is lost. But consider the recent case of the individuals who were responsible for the brutal death of the young American homosexual man, Matthew Shepard, who was beaten, apparently tortured, and left outside overnight tied to a fence in near-freezing temperatures before he was rescued, only to die a few days later in hospital. Or consider the case of Paul Bernardo and Karla Homolka who together raped and murdered several young women, including Homolka's younger sister. Or consider the case of Ted Bundy who murdered over twenty women. Or consider the case of Jeffrey Dahmer who not only murdered but also cannibalized his victims. Or consider the case of Clifford Olson who murdered a dozen children. Surely, we very much *do* think that there are practices and values which are *in fact* wrong and evil.

Closely connected to the previous problem, ES also has a problem arising from the psychological impracticality of ES. On the more important moral matters, it seems very much to be psychologically *impossible* to believe that a behaviour X is wrong yet hold that it is right too (for someone else). On a very personal note, for all that I may try, I find it psychologically impossible to believe that although I may hold that it is wrong to torture my sons for fun, it may nevertheless be morally permissible for others to torture my sons for fun if they (the others) feel it is right. Also, I find it psychologically impossible to believe that although I may hold that my sons have great moral value, it may nevertheless be morally unobjectionable for

others to attribute zero moral value to my sons if they feel that way. I find it that this case concerning my sons can be generalized not only to *any* child but also to *any* intelligent human being.

2. Sub-Conclusion

Therefore, ES is a seriously-flawed moral thesis too, and should be dismissed.

III. A Case for Objective Moral Value: Minimal Intuitionism

Having torn down what is (broadly speaking) the major opposition to the view that intelligent human beings have objective moral value, a positive case will now be set out for reasonably believing that intelligent human beings actually *do* have such value. This case for objective moral value consists of a defence of what this dissertation's author calls Minimal Intuitionism, which is this dissertation's author's view that intelligent human beings have objective moral value and we know this via intuition.

As was mentioned in the introduction to this chapter, to defend Minimal Intuitionism, the following three main steps will be taken. First, Minimal Intuitionism will be clarified. We will look at the main concepts involved in Minimal Intuitionism, distinguishing Minimal Intuitionism from other Intuitionisms. Second, a case for Minimal Intuitionism will be made by appealing to the *obviously moral* flaws of Moral Relativism and then by discerning some fundamental moral shortcomings and/or assumptions of several major theories in moral philosophy, theories which will be taken as a reasonable representation of contemporary moral philosophizing. As was mentioned previously, the overall argument runs (roughly) as follows: A look at the various second-order theories (i.e., the moral theories) shows that our pre-theoretic first-order judgments/ intuitions regarding these theories loom large in the sense that either (1) the intuited veracity of these first-order judgments competes with second-order theories which neglect the intuition (or attempt to

explain it away) or (2) the intuited veracity of these first-order judgments is very apparently presupposed by the second-order theories; in the former category the first-order judgments/ intuitions trump the second-order theories, and in the latter category the first-order judgments/intuitions seem to undergird the second-order theories; thus, we have indirect evidence for the primacy and veracity of these moral intuitions. (The first category includes Moral Relativism, Utilitarianism, Contractarianism, and Survivalist/Evolutionary Ethics; as we will see, in these theories Minimal Intuitionism is neglected or excluded to the very obvious pre-theoretic moral detriment of the theories, and so, indirectly, these theories serve to endorse Minimal Intuitionism. The second category includes the Golden Rule, Kant's ethics, Ross's Intuitionism, and Natural Law theory; as we will see too, in these theories Minimal Intuitionism seems very much to be in operation/presupposed, in some cases more obviously than others, and so, indirectly, these theories serve to endorse Minimal Intuitionism as well. Seemingly somewhere in between, but clearly leaning more towards the second category than the first, is Vital Interests Human Rights theory.) The third step in making the case for Minimal Intuitionism will consist of looking at some important objections to Minimal Intuitionism and showing these objections to be seriously problematic.

A. Some Clarifications

Intuitionism, in its general non-minimalist form, is the view that "normal human beings have an immediate awareness of moral values [which exist],"⁶⁶ that "there are moral truths that one simply 'sees,' that are just 'there.'"⁶⁷ Some well-known proponents of an important type of non-minimalist Intuitionism are

⁶⁶W. D. Hudson, *Ethical Intuitionism*, New Studies in Ethics, series edited by W. D. Hudson (London: Macmillan, 1967), 1.

⁶⁷Jan Narveson, "Libertarianism," in *The Blackwell Guide to Ethical Theory*, edited by Hugh LaFollette, Blackwell Philosophy Guides, series edited by Steven M. Cahn (Oxford: Blackwell Publishers Ltd., 2000), 321.

H. A. Prichard, W. D. Ross and C. S. Lewis.⁶⁸ On this form of Intuitionism, there is a plurality of moral principles each of which can be intuited.⁶⁹ Lewis calls this set of principles "The Tao."⁷⁰ Gilbert Meilaender provides a helpful summary of The Tao as follows:

- (1) [G]eneral beneficence (i.e., that we try to avoid harming others and seek to help them);
- (2) special beneficence (particular concern for those who have claims of kinship upon us);
- (3) duties to parents, elders, and ancestors; (4) duties to children and posterity; (5) justice; (6) good faith and truthfulness; (7) mercy; and (8) magnanimity (i.e., willingness to give oneself in service of what is good).⁷¹

Minimal Intuitionism, on the other hand, is the view that there is (at least) one basic intuition that is reasonable to believe is true: namely, the intuition that intelligent human beings have objective moral value.⁷² According to Minimal Intuitionism, that intelligent human beings have objective moral value is self-evident: it cannot be justified in terms of more fundamental principles or values. Value or goodness is somehow

⁶⁸H. A. Prichard, "Does Moral Philosophy Rest on a Mistake?" (1912), in *Moral Obligation*, by H. A. Prichard (Oxford: Oxford University Press, 1949); W. D. Ross, *The Right and the Good* (Oxford: Oxford University Press, 1930; reprint: Indianapolis, Indiana: Hackett Publishing Company, 1988); W. D. Ross, *The Foundations of Ethics* (Oxford: Clarendon Press, 1939); Lewis, *The Abolition of Man*; C. S. Lewis, *Miracles: A Preliminary Study* (London: Geoffrey Bles, 1947, 1960; reprint: New York: Touchstone, 1996), 49.

⁶⁹According to Ross, the moral rightness of an act is intuitively discerned in our experience of a particular moral situation and then, via "intuitive induction," we arrive at general principles.

⁷⁰Lewis, *The Abolition of Man*, 18.

⁷¹Gilbert Meilaender, "Ethics and Morality," in *The C. S. Lewis Readers' Encyclopedia*, edited by Jeffrey Schultz & John West (Grand Rapids, Michigan: Zondervan, 1998), 156; cf. Lewis, *Abolition of Man*, 83-101, and Ross, *The Right & the Good*, 20-22.

⁷²In this dissertation the phrase "intelligent human beings" will be taken to refer to a paradigm case of such a being: namely, a happy and healthy and conscious and mentally-active postnatal male or female member of *homo sapiens*, say, between the ages of ten and sixty-five. To avoid unnecessary controversy, the question of whether or not the single cell of human conception and the human fetus are members of the class of intelligent human beings will not be addressed here. (For some helpful discussions on this question, see: Francis Beckwith, *Politically Correct Death: Answering Arguments for Abortion Rights* [Grand Rapids, Michigan: Baker Books, 1993]; Norman M. Ford, *The Prenatal Person: Ethics from Conception to Birth* [Oxford: Blackwell Publishers, 2002]; Jan Narveson, *Moral Matters*, 2nd edition [Peterborough, Ontario: Broadview Press, 1999], chapters 1 & 8; Hendrik van der Breggen, *An Enquiry Concerning Human Abortion* [Burlington, Ontario: Crown Publications, 1988].)

integral to the fact that an intelligent human being exists. On Minimal Intuitionism those moral principles that directly reflect and respect this one fundamental value are legitimate or true; those moral principles that violate this one fundamental value are illegitimate or false. Minimal Intuitionism, then, is a theory which maintains that people in fact have objective moral value and people can see -- intuit -- that people in fact have objective moral value.

It should be noted that although Minimal Intuitionism has some affinities with the moral theory of G. E. Moore, it also has some important differences.⁷³ Moore takes the notion of good to be unanalyzable (undefinable in terms of constitutive concepts) and to be known via intuition. For Moore, "the good" refers to the set of things which have the quality of goodness, things such as the experiences of friendship and aesthetic enjoyment (which Moore takes to be the greatest of the goods). For Minimal Intuitionism, however, objective moral value is unanalyzable and somehow essentially connected to or embedded in certain physical facts which constitute human beings *or* it is an emergent property of these physical facts; either way we know via intuition *that* people have objective moral value, and either way the existence of this value comes into being upon, and is intimately and inextricably connected with, the instantiation of intelligent human beings. On Minimal Intuitionism, objective moral value seems to be a *sui generis* essential property of intelligent human beings, or objective moral value is a physically necessitated emergent effect of intelligent human beings.⁷⁴ On Minimal Intuitionism, the main point is *that* intelligent human beings have objective moral value, and we see (intuit) this; on Minimal Intuitionism, explaining the nature of objective moral value is recognized

⁷³Moore, *Principia Ethica*. Cf. Narveson, "20th C. Ethical Theory," 3-10.

⁷⁴So objective moral value is not just another quality somehow unconnected to other "natural" qualities. This means that the Problem of the Two Pictures is not a problem for Minimal Intuitionism. According to the Problem of the Two Pictures, it is possible to have two paintings that are identical in every respect yet have one of the paintings also have the independent Moorean quality of good and the other to lack it -- which renders Moore's view absurd. On the Minimal Intuitionist view outlined above, the two paintings would both be good by virtue of being the paintings that they are. That is, on Minimal Intuitionism, two intelligent human beings would have value because they *are* intelligent human beings. (For further discussion of the Problem of the Two Pictures, see Narveson, "20th C. Ethical Theory," 7-8.)

as difficult, but not a difficulty that precludes its existence. The idea, according to Minimal Intuitionism, is that the phenomenon of objective moral value is seen (via our intuitions) and difficult to explain, but the difficulty of the explanation is not taken as evidence against the existence of objective moral value, because for those who see, the existence of objective moral value is clear. A similar situation occurs in the physical world with regard to light. The phenomenon of light is seen (via our eyes) and its nature is difficult to explain (is it essentially a wave, or particles, or both?), but the difficulty of the explanation is not taken as evidence against light's existence, because for those who see, the existence of light is clear. (The question/objection concerning what to do about those who do not "see" will be addressed later in this chapter in the section C.2.: Objection #2: What about Non-Minimal-Intuitionists?) To defend his view, Moore appeals to the Open Question Argument, which is, as is well known, problematic.⁷⁵ To defend Minimal Intuitionism, a different approach will be undertaken -- a sort of cumulative case appeal to intuition via indirect argument -- as has been sketched above, and as will be seen below.⁷⁶ Also, for Moore and for Minimal Intuitionism, ethical terms such

⁷⁵According to Moore's Open Question Argument, one can always ask the following question of any candidate property P (say, pleasure) for what goodness is: Is P good? Moore thinks that because the question is unsettled (one can answer No, and one simply is not asking Is pleasure pleasant?), the question shows that good is unanalyzable in natural terms and so is "non-natural." And this non-natural property is intuited.

An important criticism of the Open Question Argument is that it is inductive: only a limited number of candidate properties have been tested (e.g., pleasure, utility) but, as Narveson points out, "we don't know for sure that the next one might not work" (Narveson, "20th C. Ethical Theory," 6). Also, as Narveson goes on to argue, the notion of intuited goodness lacks the needed objectivity to arbitrate between people who do not intuit what Moore intuits.

Because Moore's Open Question Argument will not be used to defend the thesis of this chapter, and because Narveson's first objection to Moore's Open Question Argument seems strong, Moore's argument will not be defended in this dissertation. Nevertheless, later in the chapter, in section III-C-2, the objection from conflicting intuitions will be addressed. Also, in sections III-C-2 and III-C-3 of this chapter, the objection that the unanalyzable, mysterious nature of objective moral value should count against Minimal Intuitionism will be addressed as well.

⁷⁶Perhaps the argument is better understood as a transcendental argument in the sense that the conclusion makes sense of the experience of moral philosophy. This will become clearer as the argument progresses.

In some ways the argument of this chapter is similar to the overall argument set out by Daryl Pullman in his "Human Dignity and the Foundations of Liberalism" (Ph.D. dissertation, University of Waterloo, 1990). Whereas Pullman's primary focus is on showing how defenders of liberalism (e.g., John Rawls, David Gauthier) rely on the Kantian concept of basic human dignity (a.k.a. objective moral value of intelligent human beings) to make their justifications work, the concern here incorporates Pullman's work, is somewhat

as "right" ("duty") are definable in terms of good and objective moral value, respectively.

Now, having distinguished Minimal Intuitionism from some other forms of Intuitionism, let us look at the main concepts of Minimal Intuitionism in a bit more detail, concepts such as *intuition* and *objective moral value*.

What is an *intuition*? According to Robert L. Frazier, "To intuit something is to apprehend it directly, without recourse to reasoning processes such as deduction or induction."⁷⁷ According to Moreland and Geisler, an intuition is "an immediate, direct awareness or acquaintance with something," it is "a mode of awareness -- sensory, intellectual, or otherwise -- in which something seems or appears to be directly present to one's consciousness."⁷⁸ For example, upon reflection one can intuit the truth of the valid argument form *modus ponens* or the principle of non-contradiction.⁷⁹

What does it mean to say that something is *objective*? According to T. L. S. Sprigge, "To say that a fact is objective, or that something has objective existence, is usually to say that its holding or existence is not derivative from its being thought to hold or exist."⁸⁰ When speaking of moral values, to say a moral value is objective is to say that the moral value is mind-independent, or "out there," whether believed or not. Though apprehended by subjective beings (us), its significance is not essentially dependent upon our (changing) subjective states. An example of such mind-independence can be seen in the relation of transitivity (i.e., if

broader, and makes explicit the intuitionist dimension.

⁷⁷Robert L. Frazier, "Intuitionism in Ethics," in *Concise Routledge Encyclopedia of Philosophy* (London & New York: Routledge, 2000), 403.

⁷⁸Moreland & Geisler, *The Life and Death Debate*, 8.

⁷⁹One has an intuition, that is, one has a rational insight -- one "sees" -- that *modus ponens* is true. One intuits that given if P then Q and given P, Q follows. One does not engage in inferential reasoning to see this. One does not infer from if P then Q, and from P, that Q follows on the basis of the claims that if [if P then Q, and P], then Q; and that if [if (if P then Q, and P) then Q, and (if P then Q, and P, then Q)] then Q; and so on, *ad infinitum*.

⁸⁰T. L. S. Sprigge, "Ethical Objectivism," in *The Cambridge Dictionary of Philosophy*, 2nd edition, edited by Robert Audi (Cambridge: Cambridge University Press, 1999), 284.

A bears relation R to B and B bears it to C, then A bears R to C): the relation is subjectively perceived yet holds whether perceived or not.

What is a *moral value*? It is something of considerable worth, which has to do with human persons, and from which we can derive principles of action which respect that worth. For examples of values Pojman points to "[human] life, loving relationships, freedom, privacy, happiness, creative activity, knowledge, health, integrity, and rationality."⁸¹ Pojman also points out the following:

From the value "life" we derive the principles "Promote and protect life" and/or "Thou shalt not kill." From the value "freedom" we derive the principle "Thou shalt not deprive another of his or her freedom." From the value "privacy" we derive the principle "Respect every person's privacy." From the value "happiness" we derive the principle "Promote human happiness," and so forth with all the other values.⁸²

Keeping in mind that the concern of this chapter is intelligent human life and its value (not the other values on Pojman's list), it seems clear that intricately intertwined with the value connected to life is the idea that it *ought* to be protected and/or promoted. Moreover, it seems clear that to seriously violate this value is to engage in *evil*. Because of the possible religious or theological connotations of "evil," one should here ask the following question with Trudy Govier: "Leaving religion and theology aside, can we make sense of *secular* evil?"⁸³ Govier and the author of this dissertation think that we can. Referring to human persons, Govier goes on to write:

At the risk of sounding hopelessly mundane, I have to confess that I personally understand evil acts as those that are severely morally wrong. By this I mean that they profoundly negate the *intrinsic value of persons* by imposing severe harm on them, with the implication that their most basic rights and most fundamental and serious human interests count for nothing

⁸¹Louis P. Pojman, *Ethics: Discovering Right and Wrong*, 3rd edition (Belmont, California: Wadsworth Publishing Company, 1999), 93.

⁸²Pojman, *Ethics*, 93.

⁸³Trudy Govier, *A Delicate Balance: What Philosophy Can Tell Us About Terrorism* (Boulder, Colorado/Oxford, England: Westview Press, 2002), 25; italics added.

and can simply be disregarded.⁸⁴

On this understanding, then, "[objective moral] values are," as Sean O'Connell points out, "not derived or deduced from more primitive rules or principles by some justifying argument, because they themselves are the self-justifying foundation for ethical judgements."⁸⁵ Moreover, moral imperatives such as "Do not murder" and "Do not torture" are objective in that they are derived from an objective moral value, the intuited intrinsic value of intelligent human beings.

What is *intrinsic value*? Noah M. Lemos provides two helpful understandings, the latter of which presupposes the former: (1) "the intrinsic value of X is the value that X has solely in virtue of its intrinsic nature"; and (2) "X has intrinsic value . . . if and only if X is worthy of desire in and for itself, or, alternatively, it is fitting or appropriate for anyone to favor X in and for itself."⁸⁶ Worthiness or appropriateness of desire stems from the value arising solely from X's intrinsic nature.

At this juncture, it should be acknowledged that David Hume famously discerned a gap between claims that something *is* the case (factual claims) and claims that something *ought* to be the case (value claims), pointing out that the move from the former to the latter without further argument is not justified.⁸⁷ Hume, however, is correct in this only if values can never be facts. But it very much seems that an *ought*-claim *can* be derived from an *is*-claim if the *is*-claim has to do with an actual/objective moral value (actual intrinsic value). That is to say, if X *in fact* has objective moral value, then X *ought* to be treated accordingly. The idea is that the "oughtness" of respecting that which has objective moral value is built into the very notion

⁸⁴Govier, *A Delicate Balance*, 25; italics added.

⁸⁵Sean O'Connell, *Dilemmas and Decisions* (Toronto: Harcourt Brace & Company, 1994), 143.

⁸⁶Noah M. Lemos, "Value," in *The Cambridge Dictionary of Philosophy*, 2nd edition, edited by Robert Audi (Cambridge: Cambridge University Press, 1999), 948.

⁸⁷David Hume, *A Treatise of Human Nature*, edited by L. A. Selby-Bigge, 2nd edition, revised by P. H. Nidditch (Oxford: Clarendon Press, 1978), Book 3, Part 1, Section 1; 469.

of moral value, which may be instantiated in fact. On Minimal Intuitionism, then, principles such as "Do not murder" and "Do not torture" derive ultimately from the objective moral value (actual intrinsic value) of intelligent human beings. The question of what other moral principles there may be will not be addressed in this dissertation. Answering this question is the job of ethical theorizing which reflects or builds upon the objective moral value of intelligent human beings.

B. An Appeal to Intuition

As mentioned above, Minimal Intuitionism holds that there is one intuition that is reasonable to believe is true, namely, the intuition that intelligent human beings have objective moral value.⁸⁸ The question is: Do intelligent human beings have objective moral value, and do we intuit this?

1. Moral Relativism (again), for starters

To begin making the case that intelligent human beings *do* have objective moral value and that we *do* intuit this, it will be helpful to recall this chapter's earlier critique of Normative Ethical Relativism (NER) and Ethical Subjectivism (ES). In our critique of NER and ES, an appeal was made to some non-moral problems, that is, in the critique of NER and ES some arguments having to do with various logical, conceptual, and factual problems were set out. Also in the critique of NER and ES, we examined several actual as well as some hypothetical cases in which intelligent human beings were tortured for fun or otherwise seriously abused (e.g., murdered individually or *en masse*). Recall the evil regime problem of NER: on NER we could not criticize the atrocities of Adolf Hitler's Nazi Germany, Joseph Stalin's gulags, Pol Pot's killing fields, Saddam Hussein's gassing of villages, etc. Recall, too, the parallel evil individual problem of ES: on ES we could not criticize

⁸⁸That an intuition is reasonable to believe means that the intuition is self-evident to the person having it, which in itself constitutes a reason. There may also be some additional reasons for holding to it in the event that not everybody has the same intuition. More on this later.

the atrocities of Paul Bernardo, Jeffrey Dahmer, Clifford Olson, etc. To make the case for the wrongness of the actions of the evil regime and the evil individual, an appeal was made to the objective moral value of intelligent human beings: they ought not be tortured for fun or otherwise abused because they actually have moral worth. To be sure, it seems very much that the case against NER and ES can stand firmly solely on the basis of the arguments having to do with the non-moral problems. Any ethical theory that is logically self-refuting, has trouble defining its crucial terms, and does not fit with the facts of experience is surely a failure. However, it seems very much *too* that the case against NER and ES can stand just as firmly *solely* on the basis of the moral value to which we appealed. Any ethical theory that does not at least make an outright and direct condemnation of the destruction or abuse of intelligent human beings is *surely* a failure, full stop. Indeed, as Mary Midgley points out, "An ethical theory, which, when consistently followed through, has iniquitous consequences, is a bad theory and must be changed."⁸⁹ Indeed, as Nielsen points out, "It is more reasonable to believe such elemental things [as the torturing of innocents, wife beating, child molestation] to be evil than to believe any skeptical theory that tells us we cannot know or reasonably believe any of these things to be evil...."⁹⁰ It is the contention of this dissertation, then, that if an ethical theory does not acknowledge the pre-theoretically known truth that intelligent human beings have objective moral value, then that ethical theory is seriously and deeply problematic.

At this juncture, it may be helpful to ask with Eleonore Stump: "[H]ow do we know that the torture [say] of Jewish children by Nazi doctors is evil?"⁹¹ Stump's answer (and the answer of the writer of this dissertation): We have "strong intuitions about individual cases that exemplify wrongdoing, and we construct

⁸⁹Mary Midgley, "Duties concerning Islands," *Encounter* 60:2 (1983): 37.

⁹⁰Kai Nielsen, *Ethics Without God*, revised edition (Buffalo, New York: Prometheus Books, 1990), 10.

⁹¹Eleonore Stump, "The Mirror of Evil," in *God and the Philosophers: The Reconciliation of Faith and Reason*, edited by Thomas V. Morris (New York & Oxford: Oxford University Press, 1994), 238.

our ethical theories around those intuitions."⁹² Ross would seem to agree: with regards to principles that tell us not to harm others, Ross points out, simply, that "we *know* them to be true."⁹³ Also, Norman M. Ford, independently confirming Govier's previously mentioned view about the intrinsic value of human persons, writes: "We are *aware* of our inherent value and intrinsic worth and that we should not be used as mere means by others."⁹⁴ Chamberlain concurs: "[W]e all know intuitively that [such] facts [concerning morality] are true."⁹⁵ In other words, because we intuit that intelligent human beings have objective moral value, we know that it is morally indefensible for any individual or society to abuse or kill people for no good reason.

It should be acknowledged here that it is possible to attempt to explain the moral aspects of this chapter's critique of NER and ES in terms of egoistic/rational self-interest: that we care (should care) that others are not recreationally murdered, tortured, or molested to the extent that it is in our individual self-interest to live in a world wherein we bestow human rights onto people. However, as Thomas Nagel very helpfully reminds us, "second-order theories cannot avoid competition with the content of what they are trying to reduce or debunk."⁹⁶ In other words, the fact remains that one's first-order moral "thoughts" -- one's moral intuitions -- must still compete with the reducing or debunking second-order moral theory, in this case egoistic/rational self-interest theory.⁹⁷ Significantly, as David McNaughton points out, expressing Ross's view

⁹²Stump, "The Mirror of Evil," 238.

⁹³W. D. Ross, *The Right and the Good* (Oxford: Oxford University Press, 1930; reprint: Indianapolis, Indiana: Hackett Publishing Company, 1988), 20-21n. Ross's specific name for such principle is the duty of non-maleficence.

⁹⁴Ford, *The Prenatal Person*, 12; italics added. Cf. Govier, *A Delicate Balance*, 13, 25, 140-141, 145, 152.

⁹⁵Chamberlain, *Can We Be Good Without God?*, 57.

⁹⁶Thomas Nagel, *The Last Word* (New York & Oxford: Oxford University Press, 1997), 96.

⁹⁷Nagel, *The Last Word*, 122 & 125.

(as well as Stump's), "where theory conflicts with intuitive insight it is theory that should give way."⁹⁸ To be sure, our intuitions may be revised to some extent to achieve a "reflective equilibrium" with the theory; nevertheless, as Stump emphasizes, "our original intuitions retain an essential primacy."⁹⁹ Surely, in other words, our intuition tells us that murder and torture are wrong because these acts violate an intelligent human being who has objective moral value; they are not wrong merely because they are not in the murderer's or torturer's rational self-interest over some specified period of time in some specified social group. Also, Nagel points out that "In a sense [on the egoistic/rational self-interest explanation] it doesn't matter (except to ourselves) what happens to us: Each person has value only *for himself* not *in himself*."¹⁰⁰ But, Nagel adds, "this judgment [that each person has value only for himself, not in himself] ... is in my opinion highly unreasonable and difficult to honestly accept."¹⁰¹ And so Nagel asks rhetorically, "Can you really believe that objectively, it doesn't matter whether you die of thirst or not -- and that your inclination to believe that it does is just the false objectification of your self-love?"¹⁰² Nagel cannot. Probably many people (if not most) cannot. Nor can the author of this dissertation. In other words, we, that is, at least quite a few of us, seem very much to recognize intuitively that people actually matter intrinsically, that intelligent human beings have objective moral value. And for those who have such an intuitive recognition, such an intuitive recognition is veridical.

At this juncture, one might object that the previous sentence "for those who have such an intuitive recognition, such an intuitive recognition is veridical" merely means that if someone thinks that P then he/she thinks that P -- and clearly the fact that he/she thinks so does not make it so, nor does it imply that it is so.

⁹⁸David McNaughton, "Intuitionism," in *Blackwell Guide to Ethical Theory*, edited by Hugh LaFollette, Blackwell Philosophy Guides, series edited by Steven M. Cahn (Oxford: Blackwell Publishers, 2000), 285.

⁹⁹Stump, "The Mirror of Evil," 238.

¹⁰⁰Nagel, *The Last Word*, 122.

¹⁰¹Nagel, *The Last Word*, 122.

¹⁰²Nagel, *The Last Word*, 122.

In reply, it should be acknowledged that this point is true. Nevertheless, and very importantly, the fact remains that for those who have an intuitive recognition that P is the case, P is surely seen as veridical -- and therefore should not be abandoned just because of the mere *possibility* of falsehood. The intuitive recognition that P is the case provides pretty good grounds for thinking P is so, even though one could acknowledge that maybe it is not. To deny that P is the case given one's intuitive recognition that P is the case is, *ceteris paribus*, surely a strange and irrational thing to do. So, to repeat, we, that is, at least quite a few of us, seem very much to recognize intuitively that people actually matter intrinsically, that intelligent human beings have objective moral value. And for those who have such an intuitive recognition, such an intuitive recognition is veridical.

What is more, the intuitive recognition of the objective moral value of intelligent human beings seems to occur widely, albeit implicitly, in the doing of moral philosophy in general. As we have seen already, the intuitive recognition of this value is very apparently at work as a pre-theoretic check in the critique of NER and ES, as the former's evil regime problem and the latter's evil individual problem show. However, the intuitive recognition of this value is also very apparently at work as a crucially important *pre-theoretic check* when some other major competing ethical theories -- i.e., Utilitarianism, Contractarianism, Survivalist/ Evolutionary ethics -- are investigated for their moral-rational merits, as we will now see. As we will also see, the intuitive recognition of this value is also very apparently at work as a crucially important, pre-theoretic *foundational assumption* when these ethical theories are investigated: Kant's ethics, the Golden Rule, Natural Law theory, Rossian Intuitionism, plus a contemporary human rights theory, i.e., Vital Needs Human Rights theory.

2. Utilitarianism

Utilitarianism, generally speaking, is the ethical theory that we ought to act in ways that promote the greatest happiness or utility for the greatest number of members of the moral community.¹⁰³ Utilitarianism's

¹⁰³For a defence of Utilitarianism, see J. J. C. Smart's contributions to J. J. C. Smart & Bernard Williams, *Utilitarianism: For & Against* (Cambridge: Cambridge University Press, 1973). Actually, Smart defends *Act-*

major historical advocates are Jeremy Bentham¹⁰⁴ and John Stuart Mill.¹⁰⁵ Whereas Bentham emphasized the *quantity* of the happiness (pleasure) to be promoted, Mill emphasized its *quality*, which led to Mill's famous remarks:

It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied. And if the fool, or the pig, are of a different opinion, it is because they only know their own side of the question. The other party to the comparison knows both sides.¹⁰⁶

The most worrisome problem for Utilitarianism (assuming, contrary to fact, that the calculation of relevant future consequences is not a serious problem¹⁰⁷) is that there very much seems to be no guarantee that some innocent individual person will not be sacrificed for the good of the many. O'Connell explains:

Utilitarianism instead of what is known as *Rule-Utilitarianism*. "Act-utilitarianism is the view that the rightness or wrongness of an action is to be judged by the consequences, good or bad, of the action itself. Rule-utilitarianism is the view that the rightness or wrongness of an action is to be judged by the goodness and badness of the consequences of a rule that everyone should perform the action in like circumstances." (Smart, *Utilitarianism*, 9.) For the purpose of this dissertation, any further discussion of Act- versus Rule-Utilitarianism will not be entered. Suffice to say that the concerns presented above apply to both. Also, it should be noted that the contemporary Utilitarian philosopher Peter Singer includes any creature that is capable of experiencing pain and pleasure in Utilitarianism's "moral community," thereby widening the scope of Utilitarianism beyond the class of intelligent human beings (Peter Singer, *Animal Liberation* [New York: Avon Books, 1975]). Even in Singer's broadened version of Utilitarianism, the above concerns apply.

¹⁰⁴Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation* (1789), introduced by Laurence J. Lafleur (New York: Hafner, 1948).

¹⁰⁵John Stuart Mill, *Utilitarianism* (1863), edited by George Sher (Indianapolis: Hackett, 1979).

¹⁰⁶Mill, *Utilitarianism*, 10.

¹⁰⁷This problem is multi-faceted. Although it is possible for individuals roughly to rank their own preferences on an internal sort of scale, it is difficult in the extreme if not impossible to have a common scale between individuals. Jones may assert that Smith's top preference is three notches below Jones' bottom preference; Smith may assert the opposite; and there seems that there is not much else that can be done. Also, it is extremely difficult if not impossible to calculate the future consequences of an act. The following sorts of questions need to be answered: Do we include only intended consequences, or do we include actual consequences? How far into the future do we go -- one year? two? forty-seven? -- and why that far? What about the added difficulty that to make an informed decision we need to be able to calculate the future consequences for all the alternate possible courses of action so we can make a comparison?

The standard version of the most powerful objection to utilitarianism runs like this: utilitarianism gives no direction for the *fair* or *just* distribution of happiness throughout a group of individuals affected by a rule or an act. All that seems to matter is the *aggregate* happiness produced by different acts or rules. If the aggregate happiness of all those affected is increased by some act or rule, even if it requires that someone is made very unhappy by it, or (more strongly) is treated *unjustly* by it, then the act or rule in question seems to be what utilitarianism recommends. . . . [U]tilitarianism seems to require that one adopt any rule or action that maximizes utility, even though the act or rule may be ethically repugnant or morally unacceptable. Cases can be easily imagined in which torture, lying, murder, or adultery would certainly maximize the sum of happiness or reduce unhappiness.¹⁰⁸

Utilitarianism's main problem seems very much to stem from the intuition that *each* intelligent human being has objective moral value (intrinsic value). Moreover, what seems to morally motivate Utilitarianism in the first place is the pre-theoretic moral intuition that intelligent human beings have objective moral value *collectively*.¹⁰⁹

3. Contractarianism

Contractarianism is the ethical theory that, ultimately, agreements between individuals constitute the heart of morality. Contractarianism has important roots in the work of Thomas Hobbes.¹¹⁰ Rules of moral conduct, according to Hobbes, arise out of humankind's dissatisfaction with life in what Hobbes calls "the

¹⁰⁸O'Connell, *Dilemmas and Decisions*, 126-127.

¹⁰⁹Perhaps animals have objective moral value too. Whether or not this is correct, for the sake of simplicity the claim above is limited to intelligent human beings. Nevertheless, it is interesting to note that if all animals have objective moral value equal to that of intelligent human beings, then it must be conceded that the case set out in this chapter would favour the value of non-human animals. Such a concession would serve to strengthen the use (in this dissertation's argument) to which the existence of bearers of objective moral value is put in chapter 4 of this dissertation. For an argument for thinking that humans have a "great-making" property which adds to the objective moral value of humans and of which non-human animals have a lesser amount, see Mark D. Linville, "A Defense of Human Dignity," *Faith and Philosophy* 17:3 (July 2000): 320-332. Linville takes moral agency (which involves rational and linguistic capacities as essential components) to make the world a "richer" place. I take it that we intuit this richness in the case of intelligent human beings.

¹¹⁰See Thomas Hobbes, *Leviathan* (1651), edited by C. B. MacPherson (London: Penguin Books, 1968), part 1, chapters 13ff.

condition of meer Nature" (more commonly referred to as "the state of nature").¹¹¹ In the state of nature (whether real or hypothetical) there are no moral rules. Indeed, Hobbes famously quips, in the state of nature humankind faces "a condition of Warre of every man against every man,"¹¹² a condition wherein life is "solitary, poore, nasty, brutish, and short."¹¹³ In other words, with no moral rules, life is miserable and everyone loses. People, though, are self-interested, and they desire to escape possible bodily harm and they desire to protect their personal industry and its fruits. Happily, such desires can be largely fulfilled when agreements not to harm or steal are made with others. But, Hobbes believes, "the bonds of words are too weak to bridle mens ambition, avarice, anger, and other Passions, without the feare of some coerceive Power."¹¹⁴ In other words, promises to satisfy an agreement, in the absence of moral rules that one is obliged to follow (rules such as "Promises ought to be kept"), require, in the state of nature, some kind of external sanction. To ensure that promises arising in the state of nature are kept, Hobbes appeals to an enforcer, a "Sovereign" (i.e., a powerful government). And so, on the Hobbesian view, moral rules enter the picture. To circumvent a major problem associated with Hobbes' appeal to a Sovereign (an agreement is needed to give power to and limit the power of the Sovereign, but who enforces the terms of *that* agreement to avoid another state of nature with the Sovereign doing dastardly deeds to its subjects?), recent Hobbesian-minded philosophers have instead appealed to the possibility of voluntary cooperation. For example, David Gauthier argues that individuals (who are "constrained optimizers" rather than "straight optimizers" in a Prisoner's Dilemma type of situation) can be disposed to cooperate with others in a cautious way, i.e., they will cooperate only with others who demonstrate like dispositions (those who share a tit-for-tat approach to working with others).¹¹⁵ In this way,

¹¹¹Hobbes, *Leviathan*, 196.

¹¹²Hobbes, *Leviathan*, 196; cf. 185.

¹¹³Hobbes, *Leviathan*, 186.

¹¹⁴Hobbes, *Leviathan*, 196.

¹¹⁵David Gauthier, *Morals By Agreement* (New York & Oxford: Oxford University Press, 1986). The idea is that when possible cooperators interact a Prisoner's Dilemma situation arises, sort of. However, instead of

agreements will end up being maintained, non-cooperative individuals will not be sought out in agreement-making, and the need for Hobbes' Sovereign is avoided.¹¹⁶ In a discussion of justice, Narveson illustrates the appeal of the Contractarian position as the foundation for ethics:

I shall take it to be common ground among us all that whatever else it may do, justice will prohibit the use of violence -- force, fraud, coercion -- against otherwise innocent persons to attain our ends. The reason, in my view and, I think, most people's view, is Hobbesian: the use of force creates a negative sum game that can be played by almost everyone. It is clearly in everyone's interests to subscribe to a principle generally forbidding the use of force to attain one's miscellaneous objectives, at least if such a principle can be effective.¹¹⁷

On the Contractarian view, then, it is in everyone's interest to *agree* to general prohibitions against force and fraud and coercion. To participate in morality requires one to agree that a moral rule R should be enforced upon and by everyone. If I fail to do R, then someone takes me to task for such a failure -- as I agreed that he or she should. In other words, "A general explanation of morality and interest might be stated thus: all our benefits come from the existence of a stable society; the observance of certain moral rules is a necessary condition of such a society; hence we have an interest in maintaining moral order."¹¹⁸

There is much that is reasonable to accept in the above: We surely do have an interest in maintaining moral order, morals need mutual enforcement, and we often decide via agreement on which moral principles

a one-shot affair (typical of the Prisoner's Dilemma situation) wherein the players defect in their attempt to maximize their interest, and so the worst state of affairs for all players is realized, the affair is an open-ended series wherein the players seek longer term interests and therefore constrain their short-term maximizations of interest so that the best state of affairs for all players (who share the constrained maximization disposition) is realized.

¹¹⁶For a helpful discussion of Contractarianism, see Jan Narveson's chapter "Contractarianism" in his *The Libertarian Idea*, Ethics and Action, series edited by Tom Regan (Philadelphia: Temple University Press, 1988), 131-147.

¹¹⁷Jan Narveson, "On Recent Arguments for Egalitarianism," in *Respecting Persons in Theory and Practice: Essays on Moral and Political Philosophy*, by Jan Narveson (Lanham, Maryland: Rowman & Littlefield Publishers, Inc., 2002), 50.

¹¹⁸Antony Flew, *A Dictionary of Philosophy* (London: Pan Books Ltd., 1984), 11.

to enforce. However, there are also some serious problems. To be concerned about the interests of others seems not solely to be justified by each person's self-interest; it seems also or instead to be justified by the realization (intuitive recognition) that those others are bearers of objective moral value. Indeed, what is (and surely ought to be) an important pre-theoretic concern for Contractarianism is the possibility that an intelligent human being who exists outside of our "morality club,"¹¹⁹ that is, outside of the circle of our agreements, may be abused or deemed morally irrelevant. As William Lane Craig points out: "For people who do not sign the social contract, they are in a state of nature on [the Contractarian] view, and therefore they do not have any rights or duties. Rights and duties come only for those who are members of the club. So we can do with impunity what we want to people outside the club even if they don't do anything that we regard as offensive."¹²⁰ In other words, as Narveson writes, "whoever has not made the deal is someone with respect to whom no bets are on, no limitations authorized; and therefore people may do whatever they wish with them."¹²¹ This concern over those individuals outside of the circle of agreements seems very much to stem not merely from a personal desire to avoid a Hobbesian state of nature for ourselves -- because in our circle of agreements, we would not be in a Hobbesian state of nature, and so we, as a group, could easily keep the outsider at bay -- but from the recognition that each intelligent human being has actual worth.

Perhaps a defender of Contractarianism might object as follows: "People who profess no care about others, and act accordingly, are dangerous -- obviously -- and it is as such that action would have to be taken to defend ourselves against them. Such is not needed in the case of people who agree, i.e., who in fact set themselves in the way of being peaceable." In response, we could agree to both claims. So far, so good. It seems, though, that when we are enjoying the safety that our own group affords us the issue of concern is *not*

¹¹⁹Narveson, *The Libertarian Idea*, 135.

¹²⁰William Lane Craig in William Lane Craig & Jan Narveson, "Does God Exist? And, Does It Matter? A Public Debate" (Waterloo, Ontario: University of Waterloo & Campus Crusade for Christ, January 29, 1998). Audio cassette.

¹²¹Narveson, *The Libertarian Idea*, 146-147.

whether the action in question (used offensively) is *not needed* against some lone peaceable individual who is an outsider; rather, the issue is whether such action (used offensively) is *not prohibited* against such an individual. If it *is* prohibited, then *why*? It seems to the author of this dissertation that if we think that it ought to be prohibited, then a prior assumption having to do with the objective value of all people is at work -- especially if a strong case can be made for thinking that the lone peaceable individual outsider is someone for whom we lack sympathy, whose death would have no negative tit-for-tat ramifications for us, and whose killing might be enjoyable for the killer.

Perhaps, it may be countered, one nevertheless should respect these "outsiders" for the sake of reciprocity: it is *prudent* for us to respect them so they will respect us. This may be so, but this admission does not require a denial of the recognition that the outsiders have objective moral value. Moreover, as Brian Orend argues,

Whether this view can progress beyond the half-way point [of seeing ourselves as having human rights] and give us reason to respect everyone else's human rights, and to limit our own human rights claims to a level playing field with others, depends on how effective and accurate one believes the thesis of 'what goes around, comes around' to be. If one is convinced that this is an iron law of human relations, then the prudential perspective may provide complete satisfaction. If not, then one has to search for other reasons to get one from one's own individual human rights to a conception of why one should respect everyone else's.¹²²

Significantly, Orend is inclined to think that, because of human rights violators of the order of Joseph Stalin (who died while enjoying massively abusive power), in human relations what goes around does not always come around.¹²³

What is another important problem for Contractarianism is that it locates the wrongness of an act ultimately in the breaking of an agreement. To be sure, all of us would very probably *agree* that murder and

¹²²Orend, *Human Rights*, 82.

¹²³Orend, *Human Rights*, 82.

torture should not be permitted. But on Contractarianism, murder and torture are not wrong *in themselves*: on Contractarianism, the wrongness or evil of murder and torture is relocated to the *perpetrator's breaking of an agreement* that is (allegedly) in everyone's interest. In other words, there seems to be a Euthyphro-type problem in Contractarianism. Do we agree (subscribe) to the prohibition of act X because X is wrong? Or is X wrong because we agree to prohibit it? Contractarianism is initially attractive because it seems to have us say Yes to the first question, but once Contractarianism is accepted we are left only with a Yes to the second question. To put the matter in a slightly different way:¹²⁴ on Contractarianism the wrongness or evil of murder and torture arises only *indirectly*, via the breach of a contract; however, the truth of the matter seems very much to be that the wrongness or evil arises *directly* from the murdering or torturing which constitutes the devaluing of the persons who are murdered or tortured. So, again, Contractarianism very much seems, from a pre-theoretic view, morally problematic.

One might attempt to answer the Euthyphro type problem as follows: (A) X's being wrong is (B) its being the sort such that we all have reason to favour its being interpersonally prohibited (where "is" is the "is" of identity). While keeping in mind the above case of the lone peaceable individual, in response it seems reasonable to judge that A and B are *not* the same. A seems to have a more fundamental status than B. A seems to be a basic belief (an intuition based on the objective moral value of intelligent human beings), whereas B assumes A's basic status and goes on to defend A in prudential terms. Also, B seems to be a consequence of A, because people see the truth of A and so do have reason to favour its prohibition, whereas A is not a consequence of B.

Another important problem for Contractarianism is that on Contractarianism it seems that in one's own society it would not be a devaluing or evil *per se* to murder, torture, rape, or molest an intelligent human being (without the latter's agreement) if one found it in one's interest as well as expedient to do so, that is, if

¹²⁴The point that follows (above) is gotten from Mark D. Linville, *Is Everything Permitted? Moral Values in a World Without God* (Norcross, Georgia: RZIM, 2001), 15-16.

one enjoyed engaging in the activity and did not mind paying the price for breaking the contract if one were caught. By "buying" one's way out of the contract, by, say, paying a fine or going to jail, one could in effect live up to one's end of the bargain and so one's murder or torture (etc.) need not be seen as really wrong in itself. From a pre-theoretic view, however, this also very much seems morally problematic. Surely, the aforementioned criticisms are deeply serious problems for Contractarianism. Significantly, the recognition of these problems seems very much to be motivated by the pre-theoretic intuition that intelligent human beings have objective moral value.¹²⁵

4. Survivalist/Evolutionary ethics

In an oft-quoted passage, Michael Ruse explains Survivalist/ Evolutionary ethics as follows:

The position of the modern evolutionist...is that humans have an awareness of morality...because such an awareness is of biological worth. Morality is a biological adaptation, no less than our hands and feet and teeth.... Considered as a rationally justifiable set of claims about an objective something, ethics is illusory. I can appreciate that when somebody says "love thy neighbour as thyself," they [*sic*] think they are referring above and beyond themselves.... Nevertheless...such reference is truly without foundation. Morality is just an aid to survival and reproduction...and any deeper meaning is illusory....¹²⁶

E. O. Wilson explains Survivalist/ Evolutionary ethics as follows:

The individual is seen as predisposed biologically [because of biological evolution] to make certain choices. By cultural evolution some of the choices are hardened into precepts, then laws, and if the predisposition or coercion is strong enough, a belief in the command of God

¹²⁵For a close look at how John Rawls' contractarian theory involves an implicit appeal to the objective moral value of intelligent human beings, see Pullman, "Human Dignity and the Foundations of Liberalism," chapter 4. Further discussion of Rawls' theory will occur later in this chapter in the discussion of Vital Interests Human Rights theory.

¹²⁶Michael Ruse, "Evolutionary Theory & Christian Ethics," in *The Darwinian Paradigm* (London: Routledge, 1989), 262, 268-269. See too Michael Ruse, "The significance of evolution," in *A Companion to Ethics*, edited by Peter Singer, Blackwell Companions to Philosophy (Oxford: Blackwell Publishers, 1991, 1993), 500-510.

or the natural order of the universe.¹²⁷

On the Survivalist/ Evolutionary ethical theory, in other words, there is no objective moral value, but our *awareness* or *sense* of "objective morality" came into being because it produced survival benefits.

Before criticizing Survivalist/Evolutionary ethics, it should be conceded that building an ethical system on a survivalist, evolutionary basis has some initial plausibility. As Phillip Johnson observes:

[M]any people have made an effort to build ethical systems out of an evolutionary background -- one of the things that has evolved is the human need to form societies; societies need rules; we as rational beings can recognize the need for rules. You can even see how certain rules and standards like promise-keeping, for example, or parents caring for children, would enable a tribe to provide better and to do better in competition with other tribes. And so you can get a grounding for ethics in that sense in the evolutionary process itself....¹²⁸

So far, so good. Survivalist/Evolutionary ethics has some serious problems, however. Johnson continues:

[One] problem [with Survivalist/Evolutionary ethics] is that while promise-keeping can be justified on an evolutionary basis, so equally can *genocide*, you see, because what genocide just is is the replacement of one gene pool with another. You wipe out the tribe down the way and your gene pool survives....¹²⁹

But it seems very clear that we know that genocide is *truly* wrong. Here (again, as Nagel reminded us earlier) a second-order theory must compete with that which the second-order theory is supposed to reduce or debunk -- and here, clearly, the second-order theory (Survivalist/Evolutionary ethics) seems very much to lose against the first-order content (our moral intuitions). In addition, Survivalist/ Evolutionary ethics slips logically into

¹²⁷E. O. Wilson, *Consilience: The Unity of Knowledge* (New York: Alfred A. Knopf, Inc.: 1998), 250-251.

¹²⁸Phillip E. Johnson, *Can Science Know the Mind of God? A Lecture at Princeton University* (Boulder, Colorado: Access Research Network, 1996), videocassette.

¹²⁹Johnson, *Can Science Know the Mind of God?*.

Normative Ethical Relativism and incurs one of its major problems: namely, the (previously mentioned) evil regime problem. If any obviously evil actions -- e.g., genocide -- happen to promote the survival of one's group, then those obviously evil actions are right and good. But this means that if Saddam Hussein's killing of villages full of Kurdish families by administering poisonous gas (which he has done) were to ensure his regime's dominance and survival in Iraq (and in the rest of the world), then such killings would be morally acceptable -- even praiseworthy. So, too, would be the case for Hitler's holocaust, and so on. But we know that these are wrong.

Another problem is that if morality is due to evolution and survival, then our strong and clear intuitions that rape, child molestation, torture, and murder are outrageously evil and wrong in themselves are mere delusions. On the Survivalist/ Evolutionary account, these actions are not really evil or wrong in any deep sense; they are just *sometimes not helpful* to a group's survival. If the illusion of objective morality evolved merely because it produced survival benefits, then "morality" would merely be a set of *suggestions* for living. But this does not account for the deep significance and binding character that our experience of morality gives us, even in the face of the realization that morality evolved. Interestingly, actions such as rape, child molestation, torture, and murder would be, in principle, morally permissible if they could be shown not to interfere with the survival of the group. If such actions could be shown to *help* the group's survival, then we would be supposed to think that they are "good."

It very much seems, then, that according to Survivalist/ Evolutionary ethics, the survival of the strongest brutes is all that ultimately counts. But this means that ethics can be reduced to a very simple formula: might makes right. Surely, though, we know this is not so.¹³⁰

¹³⁰J. Baird Callicott attempts to resist the relativistic implications of evolutionary-induced moral sentiments by holding to a "human consensus of feeling" which would be considered normal and from which deviations are abnormal "variations." (J. Baird Callicott, "On the Intrinsic Value of Nonhuman Species," in *The Preservation of Species*, edited by Bryan G. Norton [Princeton: Princeton University Press, 1986], 162.) Callicott seems not to be successful, however. Morality would be reduced to statistics, where (numerical) might makes right.

Ruse has argued that, if extraterrestrial beings exist, rape need not be necessarily wrong for beings

Also, it would very much seem that, in view of the primacy of our intuition concerning the objective moral value of intelligent human beings, to dismiss the alleged truth of this intuition on the grounds that morality originated via evolution is to commit the genetic fallacy. The mere fact that we have been conditioned by biological and cultural evolutionary factors is not sufficient grounds for dismissing what we have come to believe or claim to know is true; for example, think of how by a combination of factors arising from biological and cultural evolution, most of us have been conditioned to believe in the basic truths of logic (e.g., *modus ponens*).¹³¹

on other planets. Why not? Because the evolutionary history of extraterrestrial beings might be different from our evolutionary history, and so their ethics could be different from ours. On a planet in a galaxy far far away, rape could be required to ensure survival for the beings of this planet, and so rape would be considered moral for them. (Michael Ruse, "Is Rape Wrong on Andromeda?" in *Extraterrestrials: Science and Alien Intelligence*, edited by E. Regis Jr. [Cambridge: Cambridge University Press, 1985], 60-72.) It is interesting to note, as critics of Ruse have pointed out, that Ruse's argument logically implies that if the aliens were sufficiently similar to humans so as to be able to have sexual intercourse with us, and if the aliens were to visit earth and start raping humans, and if we were to complain that rape is wrong and that the alien rapists should stop raping us, then the visitors from outer space would have a ready answer. The alien rapists could correctly say, "Your moral ideas are only a product of your evolutionary process. They are only like your other adaptations. Any other meaning is an illusion. It doesn't affect us." (Chamberlain, *Can We Be Good Without God?*, 159.) Also (Chamberlain goes on to argue), suppose that the aliens were superior to us and raised us for food, as we are superior to cattle and raise cattle for food, and suppose the aliens eat us. Our moral convictions that this is wrong would continue to be illusory, and we could present no good moral arguments against the aliens' culinary delights. In other words, the promoter of Survivalist/Evolutionary ethics must also face Normative Ethical Relativism's Evil Regime problem *on a cosmic scale*.

Narveson makes a similar supposition: "[W]hat if humans are to ETs as ants are to humans? Suppose a race of ETs so virtuously superhuman that mere humans stand to them as completely insignificant." (Jan Narveson, "Martians and morals: How to treat an alien," in *Extraterrestrials: Science and Alien Intelligence*, edited by E. Regis Jr. [Cambridge: Cambridge University Press, 1985], 254.) Narveson's answer: "[W]e could conclude that the superbeings would simply have no duties to us -- that at best we might be regarded as objects of scientific curiosity to them, just as the ants (apart from their nuisance value) are to us." (Narveson, "Martians and morals," 254.) On the account defended in this chapter, Narveson's answer would not be correct because the objective moral value of humans makes them (us) *not* "completely insignificant."

Speaking of aliens, at this juncture one might wonder: If alien beings exist, would *they* have objective moral value? As interesting as this question is, whether aliens actually do have objective moral value will be considered beyond the scope of this dissertation. Suffice it to say that in the view of this dissertation's author it would seem that if aliens are much like intelligent human beings in the sense that they are intelligent and free agents, then they would; and if they are much like, say, chickens and pigs, i.e., lacking intelligence and governed by instincts, then they would have a lesser degree of objective moral value.

¹³¹In addition, there are some serious problems with biological (macro)evolutionary theory which need to be addressed, and these problems would very much seem to cast some doubt on the overall case for

Surely, the aforementioned criticisms are deeply serious problems for Survivalist/Evolutionary ethics. Significantly, the recognition of these problems seems very much to be motivated by the pre-theoretic intuition that intelligent human beings have objective moral value.

Let us now turn from those ethical theories that falter because they compete with and are trumped by our pre-theoretic intuition that intelligent human beings have objective moral value, and let us turn to those ethical theories that seem to incorporate this intuition as an undergirding, foundational assumption.

5. The Golden Rule

The Golden Rule says "Treat others only as you consent to being treated in the same situation."¹³² Harry Gensler argues that the Golden Rule follows from the following four notions or dimensions of consistency: (1) "logicality," i.e., that we should be consistent in our beliefs and in our beliefs and their logical consequences¹³³; (2) "ends-means consistency," i.e., that we should be consistent in the sense that we act in such a way that the end will be achieved¹³⁴; (3) "conscientiousness," i.e., that we should act in accordance with our moral beliefs¹³⁵; and (4) "impartiality," i.e., that we should make similar evaluations about similar actions,

Survivalist/ Evolutionary ethics too. Some of these problems will be looked at in chapter 4. Whether these problems are serious or not, suffice it to say here (as argued above) that Survivalist/ Evolutionary ethics is a second-order theory that has serious difficulty in competing with the first-order moral phenomena it allegedly debunks.

In fairness to Wilson, it should be noted that he weds the Survivalist/ Evolutionary position with Contractarianism. According to Wilson, "*Strong innate feeling and historical experience cause certain actions to be preferred; we have experienced them, and weighed their consequences, and agree to conform with codes that express them. Let us take an oath upon the codes, invest our personal honor in them, and suffer punishment for their violation.*" (Wilson, *Consilience*, 251; italics in the original.) The criticisms made previously of Contractarianism apply to Wilson's Contractarian Survivalist/ Evolutionary view.

¹³²Gensler, *Ethics*, 104.

¹³³Gensler, *Ethics*, 86.

¹³⁴Gensler, *Ethics*, 88.

¹³⁵Gensler, *Ethics*, 89. In other words, we should not be hypocrites.

regardless of the individuals involved (ourselves included).¹³⁶ Gensler merely asserts that all humans are the "others" to whom the Golden Rule applies. Significantly, for the Golden Rule to fly, the impartiality requirement seems very much to presuppose that intelligent human beings have objective moral value (and equally so) and that we know this.¹³⁷ Without this assumption in place, the Golden Rule shrivels in its scope of application to, say, all and only all members of my tribe.¹³⁸ Thus, that intelligent human beings have objective moral value and we intuit this seems very much to be foundational assumption of the Golden Rule.

6. Kant's ethics

In considering Kant's ethics, consider especially the third formulation of the Categorical Imperative which Kant seems to use to buttress his other formulations. The third formulation states: "Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end."¹³⁹ Interestingly, in this third formulation Kant seems very

¹³⁶Gensler, *Ethics*, 93. For further discussion of the notions of logicity, ends-means consistency, conscientiousness, and impartiality and their connection to the Golden Rule, see Gensler, *Ethics*, chapters 7 & 8. See too chapters 2 to 5 in Harry J. Gensler, *Formal Ethics* (London & New York: Routledge, 1996).

¹³⁷Gensler also asserts that "beings capable of experiences", i.e., sentient creatures such as dogs, are included in the "others" to whom the Golden Rule applies (Gensler, *Ethics*, 114). So Gensler also assumes that animals each have objective moral value and we know this as well. Whether or not animals do have objective moral value will be an issue not addressed in this dissertation. It will be enough to say here that (1) Gensler intuits the objective moral value of intelligent human beings, and (2) if animals do have objective moral value, then the arguments in chapter 4 will be strengthened.

¹³⁸Certainly, in Jesus' biblical understanding of the Golden Rule (Luke 6:31) each individual has objective moral worth because each individual is made "in the image of God" (Genesis 1:27 NASB).

¹³⁹Immanuel Kant, *Groundwork of the Metaphysic of Morals*, translated and analysed by H. J. Paton [New York: Harper & Row, 1964], 96. The first formulation of the Categorical Imperative states the following: "Act only on that maxim through which you can at the same time will that it should become a universal law" (Kant, *Groundwork of the Metaphysic of Morals*, 88). The second formulation states: "Act as if the maxim of your action were to become through your will a universal law of nature" (Kant, *Groundwork of the Metaphysic of Morals*, 89). The fourth formulation states: "So act that your will can regard itself at the same time as making universal law through its maxim" (Kant, *Groundwork of the Metaphysic of Morals*, 34, 98-100). The fifth formulation states: "So act as if you were through your maxims a law-making member of a

much to rely on the intuition that intelligent human beings -- intelligent beings who are free and are valuers -- have intrinsic value.¹⁴⁰ Indeed, as Daryl Pullman points out, "for Kant the idea of the universal dignity of humanity serve[s] as the fundamental concept of his moral philosophy from first to last."¹⁴¹ Thus, that intelligent human beings have objective moral value and we intuit this seems very much to be foundational assumption of Kant's ethics.

7. Ross's Intuitionism

As mentioned previously, with regards to principles that tell us not to harm others, Ross points out, simply, that "we *know* them to be true."¹⁴² This, along with Ross's list of *prima facie* duties (as summarized by Lewis's "Tao"), suggests that Ross's Intuitionism seems to assume that intelligent human beings have objective moral value.¹⁴³ A duty to another person, that is, a duty that arises directly from that person *per se* (as opposed to indirectly from a theory of ethics such as, say, Contractarianism or Utilitarianism) seems very much to presuppose the objective moral value of that person; and it seems very much to presuppose that we *know* this to be the case. Thus, that intelligent human beings have objective moral value and we intuit this seems very much to be foundational assumption of Ross's Intuitionism.

kingdom of ends" (Kant, *Groundwork of the Metaphysic of Morals*, 35, 100-102).

¹⁴⁰Kant, *Groundwork of the Metaphysic of Morals*, 96.

¹⁴¹Pullman, "Human Dignity and the Foundations of Liberalism," 37. To see how the idea of the universal dignity of humanity served as the fundamental concept of Kant's moral philosophy from first to last, see Pullman, "Human Dignity and the Foundations of Liberalism," chapter 2.

¹⁴²Ross, *The Right and the Good*, 20-21n.

¹⁴³Ross, *The Right and the Good*, 20-22. See too John E. Thomas & Wilfred J. Waluchow, *Well and Good* (Peterborough, Ontario: Broadview Press, 1987), 24-25.

8. Natural Law theory

According to Natural Law theory, we come to know a natural moral law, such as *life ought to be preserved*, by our natural inclinations. According to Aquinas, "all the things to which man has a natural inclination are *naturally apprehended* by the reason as good" ¹⁴⁴ But this seems very much to suggest that we intuit the objective value of intelligent human beings. ¹⁴⁵ Otherwise, the duties seem unfounded. Thus, that intelligent human beings have objective moral value and we intuit this seems very much to be a foundational assumption of Natural Law theory.

9. Excursus on Contemporary Human Rights: Vital Needs Human Rights theory

Vital Needs Human Rights theory is a contemporary human rights theory that has been very recently set out and defended by Brian Orend in his book *Human Rights: Concept and Context*. ¹⁴⁶ According to Vital Needs Human Rights theory, one's vital needs -- i.e., one's needs for living a minimally good life -- constitute a necessary condition for the objects of human rights (such as life and liberty), which, when coupled with the necessary conditions of one's being biologically human and one's not violating others' human rights, constitute a set of jointly sufficient conditions for human rights. According to Orend, "To hold human rights, one must be biologically human, one must avoid violating another's human rights, and one must have fundamental interests in, or vital needs for, living a life of minimal value. One's having these three characteristics gives

¹⁴⁴Thomas Aquinas, *Summa Theologiae*, 1-2.94.2-3; quoted from *St. Thomas Aquinas on Politics and Ethics*, translated & edited by Paul E. Sigmund, Norton Critical Editions in the History of Ideas (New York & London: W. W. Norton & Company, Inc., 1988), 49; italics added for emphasis.

¹⁴⁵See Jacques Maritain, "Natural Law," in *St. Thomas Aquinas on Politics and Ethics*, translated & edited by Paul E. Sigmund, Norton Critical Editions in the History of Ideas (New York & London: W. W. Norton, 1988), 208-209.

¹⁴⁶As noted previously, Orend's book was published by Broadview Press in 2002.

everybody else overriding reasons to acknowledge one's status as a fully-fledged holder of human rights."¹⁴⁷ Vital needs include, according to Orend, "physical security, material subsistence, personal freedom, and social recognition."¹⁴⁸ Orend supports the Vital Needs Human Rights theory with a cumulative case argument which appeals to accounts of human rights that are "middling" (that is, "subsisting somewhere between unpersuasive and persuasive") and accounts of human rights that are "more clearly persuasive."¹⁴⁹ In the former group, Orend includes the Contractarian appeal to personal prudence and Michael Walzer's appeal to social consensus; in the latter group, Orend includes Utilitarianism, H.L.A. Hart's special rights justification of human rights, and John Rawls' argument from prudence and fairness. Concerning Contractarianism, Orend, as pointed out previously, sees its strength to be in the fact that it gives us prudential reasons to see ourselves as holders of human rights. Yet, as also pointed out previously, Orend sees its weakness in its poor handling of the likes of Stalin: those who do not see others as having fundamental human rights, and who stand outside Contractarianism's sphere of reciprocity of rights enforcement, seem unconstrained by Contractarianism's requirement of reciprocity. The vital needs of others are not respected on Contractarianism, in other words, and this, Orend holds, counts against Contractarianism. Concerning Walzer's appeal to social consensus as a justification of human rights (there is in fact a strong social consensus in favour of human rights which Walzer takes as justification of human rights), Orend concedes that "there is probably a strong reason why most people concur with a given belief, and this strong reason is indicated by the fact the belief is so broadly shared."¹⁵⁰ So such consensus can count in favour of the justification of human rights. Nevertheless, Orend emphasizes (rightly), "This being said, it needs to be stressed that it is *the underlying reason* that is the thing

¹⁴⁷Orend, *Human Rights*, 65.

¹⁴⁸Orend, *Human Rights*, 95.

¹⁴⁹Orend, *Human Rights*, 97-98.

¹⁵⁰Orend, *Human Rights*, 79.

to focus on, not the consensus surrounding it...."¹⁵¹ Why? Because "sometimes there can be widespread consensus about things that subsequently turn out to be a deep error."¹⁵² And so, Orend holds, we should focus on the having of vital needs as the underlying reason for human rights. Orend takes Utilitarianism as an *explanation* of human rights which "*accepts* human rights, and seeks to offer a compelling and graspable reason for us to respect such rights,"¹⁵³ and so this chapter's criticism of Utilitarianism set out above (i.e., that a crucial weakness of Utilitarianism is that it sometimes allows for sacrificing people for the public good, which is obviously bad) is avoided because the criticism's point is *assumed* -- we *know* it is bad to sacrifice people and their vital interests for the public good -- and this assumption should be respected. Orend, rather, sees Utilitarianism's main problem to lie in Utilitarianism's possible exaggeration of human rights claims since the satisfaction of everyone's happiness and pleasure is the guiding principle of Utilitarianism and so may lead to everyone having "a human right to whatever makes us happy," including endorphin-releasing "pleasure machines" and "orgasm pills."¹⁵⁴ "In my view," Orend asserts, "it is only a more focused approach, based on a slim set of primary goods, or genuine vital needs, that can prevent such unsustainable 'rights inflation'."¹⁵⁵ The elements of this slim set of vital needs consist of, as mentioned above, "physical security, material subsistence, personal freedom, and social recognition."¹⁵⁶ Concerning Hart's justification of human rights -- i.e., if one has a special right (such as the legal right to own a car in Canada, or the moral right to engage in family relationships in Cuba), then this makes sense only if one has a general, or human, right (such as the right to liberty) -- Orend holds that this seems on track although the objects of one's general, foundational

¹⁵¹Orend, *Human Rights*, 79.

¹⁵²Orend, *Human Rights*, 79.

¹⁵³Orend, *Human Rights*, 90; italics in the original.

¹⁵⁴Orend, *Human Rights*, 91.

¹⁵⁵Orend, *Human Rights*, 91.

¹⁵⁶Orend, *Human Rights*, 95.

rights should include all the objects of the vital needs listed in the previous sentence.¹⁵⁷ Concerning Rawls' famous hypothetical situation wherein agents in "the original position" bargain behind a "veil of ignorance" (i.e., nobody knows what talents and resources he/she has) to discern a set of human rights (primary goods) that are in each person's interest and fair to all (i.e., everyone, including the worst off, would receive primary goods), Orend points out, approvingly: "In sum, we should all agree -- here and now, in the post-veil world -- to the terms of Rawls's social contract because it was a contract negotiated by agents sufficiently like us in being self-interested and reasonable, but with the added advantage of having been negotiated under conditions of freedom and fairness."¹⁵⁸ Orend adds: "Prudence gets us half-way there, so to speak [i.e., we have self-interested reasons for recognizing our own rights], and then an appeal to fairness picks up the ball and carries it home [i.e., we recognize the fundamental rights of others]. A twin commitment to elemental prudence and fundamental fairness gets us where we want to be: acknowledging that we all have the same human rights."¹⁵⁹ Orend defends Rawls' view against the criticism that in reality people will simply not set aside their differences (power, wealth, etc.) to enter the hypothetical original position and its veil of ignorance and then to abide by its conclusions by pointing out that Rawls' theory is a "normative justification -- a prescription -- for understanding social justice," and so we should "hold everyone accountable to basic principles of fairness."¹⁶⁰ These basic principles of fairness require that everyone's vital needs be satisfied, and violating the satisfaction of such vital needs constitutes a grievous harm and so is morally wrong. Orend understands fairness, in other words, to presuppose that everybody's vital needs should be respected (which is what Rawls presupposes too). In the end, on Vital Needs Human Rights theory the fundamental justification of fundamental human rights

¹⁵⁷Orend, *Human Rights*, 94. Cf. H.L.A. Hart, *The Concept of Law* (Oxford: Clarendon Press, 1961).

¹⁵⁸Orend, *Human Rights*, 85. Cf. John Rawls, *A Theory of Justice* (Cambridge, Massachusetts: Harvard University Press, 1971).

¹⁵⁹Orend, *Human Rights*, 85.

¹⁶⁰Orend, *Human Rights*, 86.

hangs on an appeal to the mere actuality of a biological human being who has vital needs and has not forfeited the right to the satisfaction of those needs by the doing of some seriously unjust act.

But we should now ask: *Why?* Why do human vital needs matter? It is the view of the author of this dissertation that the intuited objective moral value of intelligent human beings is the answer: human beings have intrinsic worth, and we intuit this. This intuition is not acknowledged explicitly in Orend's arguments, but it does seem very much to operate in Orend's arguments as an assumption which holds that human beings with vital needs have actual worth and so should be treated with respect if they have not somehow forfeited that respect by their actions towards others; otherwise human rights -- i.e., "high-priority claims to that minimal level of decent and respectful treatment which we believe is owed to a human being"¹⁶¹ -- seem not to make sense. Interestingly, Orend acknowledges the attractiveness of such an answer for many thinkers on human rights (in what follows substitute "objective moral value of intelligent human beings" for "human dignity," "dignity of the human person," etc.). Orend writes: "References to 'human dignity,' 'the dignity of the human person,' and 'the essential worth of the human person' abound in human rights documents, as do prohibitions on 'inhumane and undignified treatment' of one's fellow human beings. Many in the human rights field cite a concept of human dignity as the ultimate justification for human rights."¹⁶² But Orend dismisses such an answer for the following reasons (again substitute "objective moral value of intelligent human beings" for "human dignity" and "dignity"):

[H]uman dignity is too large, vague and contested a concept to serve as a solid starting point for justifying human rights. For what is "human dignity"? Do we just know it when we see it, so that ultimately this view rests on a controversial appeal to self-evidence? But dignity cannot be self-evident, for how then to explain the "blindness" of human rights violators? If dignity is not just evident but self-evident, how to explain the fact that not all of us see it the same way? All too often, people appeal to self-evidence when they have run out of good

¹⁶¹Orend, *Human Rights*, 29.

¹⁶²Orend, *Human Rights*, 87. Many humanists do too. As mentioned previously in this chapter, according to article 5 of the Humanist Manifesto II, "The preciousness and dignity of the individual person is a central humanist value" (Kurtz, *Humanist Manifestos I & II*).

reasons for us to agree with them.¹⁶³

Bracketing temporarily Orend's questions concerning "blindness" and "not all of us see it the same way" (these questions will be answered in this chapter's section III-C: Objections & Replies, sub-section 2), but keeping in mind the role the idea of human vital needs plays as a value to ground the universality of fundamental human rights in Orend's arguments, it seems quite reasonable to think that the (self-evident) intuition that intelligent human beings have objective moral value (dignity) *does* undergird and shape Vital Needs Human Rights theory, albeit covertly and in spite of Orend's denials.¹⁶⁴

We can agree with A. C. Grayling, then, when he writes the following:

In modern secular ethics great weight is given to concern for the welfare and rights of people This concern is motivated . . . by a sense of the intrinsic worth of [people], and their importance to us. To a secular view, the notion of intrinsic worth of others . . . is the only true source of morality.¹⁶⁵

¹⁶³Orend, *Human Rights*, 88.

¹⁶⁴Minimal Intuitionism, in other words, can supplement Orend's theory as its foundation; but if Minimal Intuitionism is excluded, then Orend's theory must be rejected.

It is interesting to note here that Kai Nielsen also sets out a vital interests human rights theory (with a slightly longer list of vital interests) which seems very much to require the assumption/intuition that intelligent human beings have objective moral value. Nielsen thinks that justice "commits [him] to a principle of equal respect for all human beings. Human beings, great and small, good and bad, deserving and undeserving, have a right to our equal concern for their well-being and self-respect.... [A]ny human being, even someone who is vicious and untrust-worthy, cannot be so treated that his vital interests are simply ignored, simply set aside as counting for nothing." (Kai Nielsen, *Ethics Without God*, revised edition [Amherst, New York: Prometheus Books, 1990], 203.) The assumption is that a human being's vital interests are sufficient grounds for fundamental human rights. But this view, like Orend's, seems to make good sense only if each person has intrinsic worth.

¹⁶⁵A. C. Grayling, *What Is Good? The Search for the Best Way to Live* (London, England: Weidenfeld & Nicolson, 2003), 72. Grayling includes animals and the environment along with people as those things that have intrinsic worth and that we sense as having such worth. I have focused only on people because that is the focus of this chapter. It is reasonable to think, though, that if animals and the environment have intrinsic worth too, then my larger argument (in chapter 4) would be strengthened.

10. Sub-Conclusion, and one more argument

Thus, whether the ethical theorizing is Relativistic, Utilitarian, Contractarian, or Survalist/Evolutionary, it is reasonable to think that the intuition concerning the objective moral value of intelligent human beings operates as a check -- a pre-theoretic check -- on that ethical theorizing. In addition, whether the ethical theorizing has to do with the Golden Rule, Kant's ethics, Ross's Intuitionism, Natural Law Theory, or even Vital Needs Human Rights theory, it is reasonable to think too that the intuition concerning the objective moral value of intelligent human beings provides an undergirding -- a pre-theoretic undergirding -- for that ethical theorizing.

Now, in view of how on each of the above ethical theories a reasonable argument can be made for thinking that the intuition that intelligent human beings have objective moral value is crucial for accurately assessing that theory morally, and in taking a cue from Orend in terms of argument strategy, it very much seems that a cumulative case argument can be made for Minimal Intuitionism (MI). As we have seen (above), in each instance of ethical assessment there is a reasonable sub-argument for MI, that is, each case seems very much to presuppose the truth of MI. It can be acknowledged that these sub-arguments are not on their own decisive in establishing MI; in each case MI is not 100 percent established (no case is 100 percent established, but some cases seem stronger than others). Nevertheless, the fact remains that *in each case* the MI thesis is reasonably supported. Also, the fact remains that *all* of the cases can be seen to *converge* onto the MI thesis (which is to say that the MI thesis *unifies* the cases in an elegant fashion). In view of the above, then, it is reasonable to believe the following: (1) that intelligent humans beings have objective moral value (intrinsic worth); and (2) that we (or at least many of us) intuit this.¹⁶⁶ In other words, Minimal Intuitionism seems very

¹⁶⁶Also, it should be pointed out that the intuition (of the objective worthiness/value of intelligent human beings) when coupled with the realization of the fact that another intelligent human being is undergoing, say, torture (or is threatened by torture) constitutes, for the person having the intuition, a reason to act to stop the torture. As will be argued later, this does not mean that there can be no reasons for those persons who do not have this intuition to act to stop the torture.

much to be a reasonable to believe moral theory -- if, of course, there are no insurmountable objections.

C. Objections (and Replies)

If the major objections to Minimal Intuitionism can be refuted, then the above positive case for Minimal Intuitionism gains additional support (additional indirect support), thereby making Minimal Intuitionism in fact a reasonable moral position to hold. In this section, then, some major objections to Minimal Intuitionism will be examined and shown to falter.

1. Objection #1: Are feelings merely being projected?

Is it not possible that the Minimal Intuitionist is just projecting his/her feelings and labeling them "my intuition"?

That this is a possibility must be acknowledged. However, the Minimal Intuitionist finds this to be very implausible, for two reasons. (What follows in this section will be written in the first person singular, since the author of this dissertation will be speaking from deeply personal experience of the phenomenology of Minimal Intuitionism.¹⁶⁷)

First, as a Minimal Intuitionist I find that I simply do intuit *the truth* of the intuition's contents. Indeed, I find that, to maintain philosophical integrity and (more importantly) integrity as a person, I honestly cannot deny the veridicality of this intuition. Its objective purport is simply too strong. (Stephen Darwall defines *objective purport* as "Seeming to be of something objective and independent of the perceiver [e.g.,

¹⁶⁷This appeal to the phenomenology of Minimal Intuitionism does not constitute a stand-on-its-own argument for Minimal Intuitionism, but it is relevant and adds strength to the larger case for Moral Intuitionism.

some objective fact or an objective property of some substance]."¹⁶⁸) I find that attempting to deny the truth of the intuition that intelligent human beings have objective moral value is similar to attempting to deny the truth of the intuition that *modus ponens* is a valid argument form. In both cases I find that I land in a contradiction. In simply denying *modus ponens*, I see that Q and not-Q follow from P, if P then Q, and not-Q. In simply denying the objective moral value (OMV) of intelligent human beings, I see that OMV and not-OMV follow from conjoining what I know to be true and the denial of what I know to be true (the denial of what I know to be true does not make me not know it to be true). Also, it seems that in both cases, if I *argue* against them, I land in a self-refuting argument. In arguing against *modus ponens*, I set out various reasons and infer that if my reasons are true, then my conclusion (that *modus ponens* is invalid) is true; but such a conclusion, to be true because of the truth of my reasons, requires that *modus ponens* be valid, contrary to the conclusion's truth. I must make use of *modus ponens* in order to refute *modus ponens*, which is to engage in self-refutation. In the case of Minimal Intuitionism, it seems that I must make use of Minimal Intuitionism to refute Minimal Intuitionism. To refute Minimal Intuitionism, it seems that I have to appeal to some member of the set of alternative moral theories that were examined earlier in this chapter. But, as we have seen, to make those alternative theories acceptable in the first place requires that Minimal Intuitionism be used as a pre-theoretic check or foundational assumption. So to deny Minimal Intuitionism by setting out arguments for acceptable alternative theories to render Minimal Intuitionism unacceptable seems to require that Minimal Intuitionism be accepted, which is to engage in self-refutation too. At any rate, my intuition about intelligent human beings having objective moral value seems virtually beyond doubt.

Second, my intuition concerning the objective moral value of intelligent human beings does not have the phenomenological character of a mere feeling. When I reflect carefully on the contents of my intuition concerning the objective moral value of intelligent human beings, I notice that it remains constant; however,

¹⁶⁸Stephen Darwall, *Philosophical Ethics*, Dimension of Philosophy Series, series edited by Norman Daniels & Keith Lehrer (Boulder, Colorado: Westview Press, 1998), 239.

when I reflect carefully on my feelings, I notice that they can change quite easily. The constancy of the contents of my intuition is a "behaviour" more akin to that of a rational insight than an emotion. Also, I notice that the intuition works as a standard by which I judge my feelings. I judge my anger feelings to be, say, righteous, when they stem from acts which contravene the intuited value concerning the objective worthiness of intelligent human beings (e.g., when Clifford Olson molests and murders children); and I judge my anger feelings to be non-righteous when they stem from lesser or non-values (e.g., I am sometimes annoyed -- clearly non-righteously so -- when my wife lovingly makes a chicken-lettuce-tomatoe-cucumber sandwich for me but forgets that I do not like unpeeled cucumber slices). But I do not judge the legitimacy of my feelings with other feelings. I notice too that I train my feelings to respond appropriately to the intuition; I do not train my intuitions to fall into line with my feelings. Also, my feelings may encourage me to act or not act in accordance with the intuition; but the intuition is fundamental, of a different order, which provides a reason to act regardless of my feelings. Also, honesty helps me distinguish my feelings from the intuition.

Thus, it seems reasonable to believe -- especially for the Minimal Intuitionist -- that it is implausible that Minimal Intuitionists are just projecting their feelings about the value of intelligent human beings onto human beings and labeling those feelings "my intuition." To be sure, it is possible, but it is not plausible.

2. Objection #2: What about Non-Minimal-Intuitionists?

What about the people -- the *non*-Minimal-Intuitionists -- who claim that they cannot see what the Minimal Intuitionists supposedly "see" regarding the objective moral value of intelligent human beings? Does this not weaken Minimal Intuitionism (as Orend seems to think)?

It seems not, at least not to the extent that a reasonable person should, on rational grounds, abandon Minimal Intuitionism. To be sure, there probably are people who do not intuit or only weakly intuit that intelligent human beings have objective moral value. But so what? Consider the principle, call it A, that torturing intelligent human beings just for fun is morally wrong. (To violate A is to violate the objective moral

worth of an intelligent human being.) Not unreasonably, Pojman supposes that Hitler rejects A.¹⁶⁹ And Pojman asks: "Should that affect our confidence in the truth of A? Is it not more reasonable to infer that Hitler is morally deficient, morally blind, ignorant, or irrational than to suppose that his noncompliance is evidence against the truth of A?"¹⁷⁰ Pojman's questions are rhetorical. According to Pojman, "if some agent, S, rejects A, we should not let that affect our intuition that A is a true principle; rather, we should try to explain S's behavior as perverse, ignorant, or irrational instead."¹⁷¹ In other words, as Darwall points out, "Like mathematical insight, ethical insight may not be equally distributed. Some people may be more perceptive about ethics than others. And some may have what amounts to ethical blindness, in some cases at least."¹⁷²

Also, it should be noted that there seem to be quite a few people who intuit the truth of A. Recall the U.N. Declaration of Human Rights, and recall Lewis's historical survey of moral codes, which were discussed earlier in this chapter. To be sure, as Nielsen points out, "Even if a universal concurrence in moral belief and attitude were discovered, the moral relativist [or other objectors to Minimal Intuitionism] could still claim that this agreement does not rest on rational grounds but merely on a contingent and fortuitous similarity of uniformity in what is approved."¹⁷³ But Nielsen and the relativist go too far. The fact of the matter is that the apparent common denominators are suggestive of, and provide a measure of confirmation of, elements of a universal objective morality. Even though, as Ralph Johnson and Anthony Blair point out, "people are persuaded by bad arguments; they're duped by fallacies; they judge first and think afterwards; they fail to search out and review the evidence; they face the limits of time and energy" -- i.e., even though "the appeal

¹⁶⁹Pojman, *Ethics*, 52. Probably Hitler did not torture people "just for fun." But let us suppose, with Pojman, that Hitler did. Certainly, some of Hitler's colleagues were not averse to rejecting A. Or, instead of Hitler, we could substitute Saddam Hussein or his sons.

¹⁷⁰Pojman, *Ethics*, 52.

¹⁷¹Pojman, *Ethics*, 51-52.

¹⁷²Darwall, *Philosophical Ethics*, 52. Darwall is here merely reporting the intuitionist's position; he is not a proponent of intuitionism. Later it will be shown that Darwall's objections to intuitionism fail.

¹⁷³Nielsen, "Ethical Relativism and the Facts of Cultural Relativity," 538-539.

to popular consensus . . . as an indicator of what is probably true, is fraught with pitfalls"¹⁷⁴ – it still seems reasonable to think that some sort of rational grounds is lurking in the background. Why? Because it seems that people are not *wholly* lacking in rationality. The apparently wide-spread if not universal occurrence of the intuition that intelligent human beings have objective moral value may very well be a manifestation of this rationality.

Still, Narveson (and others) might object at this juncture as follows:

People can genuinely come to wonder why murder [or recreational torture] is wrong, or even to doubt that it is. Cloaking murder [or recreational torture] with an "intuition of wrongness" won't answer them. And if intuitionism has no more than this to say to us, the thought crosses the mind that perhaps what it says is really nothing at all.¹⁷⁵

In response to Narveson, it should first be noted that it seems not at all unreasonable to wonder *why* something is the case without doubting *that* it is the case. For example, one can wonder why light is the way it is by exploring the wave-particle theory of light (a theory which has some very serious problems, not so incidentally) yet not doubt that light exists because of one's experience of the phenomenon of light. Similarly, one can wonder *why* A is the case without doubting *that* A is the case. In fact, like the person who sees light, does not know how to explain it, yet does not doubt its existence, so too the person who sees A, and does not know how to explain A, need not doubt A. It may be that A is simply a fundamental constituent of the universe's order. Yes, as Darwall points out, "Intuitionists provide no further account of such an order. . . ." "[B]ut," as Darwall quickly adds, "this refusal is principled since [the Intuitionists] hold that any such account would inevitably change the subject. Nothing but ethical facts themselves can illuminate their nature."¹⁷⁶ Moreover, as has been argued earlier in this chapter, because of the failure of the other ethical theories there

¹⁷⁴Ralph H. Johnson & J. Anthony Blair, *Logical Self-Defense*, 3rd edition (Toronto: McGraw-Hill Ryerson Limited, 1993), 175.

¹⁷⁵Narveson, "Libertarianism," 321.

¹⁷⁶Darwall, *Philosophical Ethics*, 52.

is indirect support for believing *that* A is the case.

Second, judging and pointing out that murder or recreational torture is a contravention of an intuited moral value need not be understood as a "cloaking"; it may simply be -- as it seems to be in fact -- a clear and honest discernment and telling of truth. Also, the Minimal Intuitionist is surely reasonable in thinking that just as the person who does not see light should not attempt to persuade the person who does to deny that he/she does by, say, suggesting that the latter is guilty of obfuscation (e.g., "cloaking"), so too the person who does not see A should not similarly attempt to persuade the person who does to recant (especially in view of this chapter's previous argumentation).

Third, it is simply false that Minimal Intuitionism has no more to say to us than "either you see it or you don't." Yes, the Minimal Intuitionist holds that the truth of A can be simply seen; according to the Minimal Intuitionist, this is the most important reason for accepting A. But this need not be the *only* reason for accepting A. On Minimal Intuitionism, *prudential* reasons can be given for A, *too*, at least to some extent. Of course, for those who do not intuit A's truth, the prudential reasons will be paramount. However, for those who intuit the truth of A, the prudential reasons -- though of great importance -- will be second to A in importance. Prudential reasons are reasons which arise as consequences of A's acceptance and which enhance self-interest, conflict resolution, and general human flourishing. For example, if one lives in a society (e.g., Canada and the U.S.) in which intelligent human life is generally highly respected (i.e., A is strongly held), it seems quite clear that, as a consequence of holding A strongly, life is better for the individuals in that society: that is, A is in each individual's self-interest, it provides moral limits to means of conflict resolution, and it provides a reason for encouraging human flourishing. This is not to say, however, that one will *always* be able to translate A's acceptance into reasons that are prudential, thereby rendering Minimal Intuitionism superfluous. For example, some contracting parties (say, Saddam Hussein and Osama bin Laden) might find A's rejection to be prudent for the flourishing of their regimes (women and peasants not included) in spite of attempts by those (e.g., the U.S., Britain, and Canada) who accept A to impose, say, economic sanctions to

make A's acceptance more attractive. In this case, it seems quite reasonable for the Moral Intuitionist simply to hold to the attitude we have toward the likes of Hitler: that such parties are morally deficient, morally blind, ignorant, and/or irrational.

3. Objection #3: Mysterious moral facts?

J. L. Mackie might object at this juncture as follows: Because of Minimal Intuitionism's thesis that there are objective moral values, are we not left with moral facts whose nature is "queer" or *mysterious*?¹⁷⁷ After all, these facts supposedly have built into them a magnetism on the will¹⁷⁸; and these facts are so significantly different, "of quite a different order," from all the other properties of which we are aware¹⁷⁹; and the connection of these facts to the physical facts is difficult in the extreme to explain.¹⁸⁰ Should not the mysteriousness of these facts count against Moral Intuitionism to such an extent that we should abandon Minimal Intuitionism as unreasonable? After all, as was asserted earlier with respect to the case against NER and ES, if an ethical theory has trouble defining its crucial terms, then that weighs against that theory.¹⁸¹

In response, it seems that the mysteriousness of the moral facts need not count against Minimal Intuitionism -- certainly not as much as Mackie would have us think. As a proponent of Minimal Intuitionism, I must admit that I do not understand the *nature* of the objective moral value of intelligent human beings nor do I understand the connection between objective moral value and intelligent human beings. Objective moral

¹⁷⁷J. L. Mackie, *Ethics: Inventing Right and Wrong* (Harmondsworth, England: Penguin Books Ltd., 1977), 38.

¹⁷⁸Mackie, *Ethics*, 40.

¹⁷⁹Mackie, *Ethics*, 40.

¹⁸⁰Mackie, *Ethics*, 41.

¹⁸¹Mackie also sees the need for a special moral faculty as a part of the "queerness" of moral facts. Because this issue seems not so much to do with the moral facts *per se*, this will be addressed in the next section.

value just seems to be there, either as an unanalyzable something essentially connected to or embedded in intelligent human beings or as a something (a property) which emerges from what physically constitutes an intelligent human being. This admission, however, need not be taken as an argument against the *existence* of the moral fact *that* intelligent human beings have objective moral value. Why not? There are five reasons, which together constitute a powerful indirect argument which in a fashion points to the fact that objective moral value is an essential characteristic or property of intelligent human beings.

First, the conception of this moral fact seems not obviously logically contradictory, even though the concept of objective moral value may be difficult to understand. This means that the positing of this moral fact is not disqualified as an explanation right from the start.

Second, the disregard of this moral fact leads to morally unacceptable consequences, i.e., unacceptable consequences from the point of view of our pre-theoretic moral intuitions, as has been seen in our assessment of Moral Relativism, Utilitarianism, Contractarianism, and Survivalist/Evolutionary ethics. This suggests the existence of the moral fact in question.

Third, positing the existence of this moral fact makes sense of the ethical theorizing which occurs in the Golden Rule, Kant's ethics, Ross's Intuitionism, Natural Law theory, and Vital Interests Human Rights theory, as has also been seen.

Fourth, the alleged magnetism or drawing power on the will is not necessarily a requirement of a moral fact. It may be the case that the will can resist the good (as seems to be common experience).

Fifth, the conception of this moral fact need not be considered wholly alien to our physical world. To make a plausible case for the sense of moral facts in a world that can be described by science, the following discussion from Jonathan Dancy is helpful:

If we allow that the world we live in is roughly the one captured by physics, where in that world are the moral facts to be found? The first answer is to say that the world does not contain facts; the facts are facts about the world, not in it. Second, the moral facts are facts about actions and agents, things which clearly exist even though physics does not say a great deal about them. Third, there is a comprehensible relation between moral and non-moral

facts; it is not as if the two are completely unrelated. The moral facts *exist in virtue of* the non-moral ones. This 'existing in virtue of' is not well understood, but it is common enough in other areas not to raise special problems in ethics. For instance, the dangerousness of a cliff bears this relation to other features of the cliff, such as its crumbly nature and steepness. . . . So even though the world can be described by physics, it cannot be completely described that way; there remain other facts to mention, including moral facts, which are comprehensibly related to the basic physical facts from which they result.¹⁸²

Along similar lines, one could say that Smith's having objective moral value is a fact about the world and not in it, where "not in the world" is understood in the sense that the fact is not a physical fact (as, say, the prime numbers are not physical facts). Along similar lines, one could also say that Smith's having objective moral value is a fact about, a property of, a human being, i.e., a being which has intelligence and metaphysical libertarian agency, about which physics does not say a great deal. And along similar lines, one could say that Smith's having objective moral value is a fact which *exists in virtue of* the fact that this intelligent human being is constituted by a particular configuration of biological tissues and chemicals which on their own are non-moral entities.

In view of the above, the existence of moral facts -- the existence of the objective moral value of intelligent human beings -- is reasonable to accept, in spite of any mystery.¹⁸³

4. Objection #4: What about Intuitionism's problems generally?

Does not Minimal Intuitionism face all the problems of Intuitionism generally -- problems such as

¹⁸²Jonathan Dancy, "Intuitionism," in *A Companion to Ethics*, edited by Peter Singer, Blackwell Companions to Philosophy (Oxford: Blackwell Publishers, 1993), 414.

¹⁸³Mackie's case against objective moral value also enlists what he calls the "argument from relativity" which, according to Mackie, "has some force simply because the actual variations in the moral codes are more readily explained by the hypothesis that they reflect ways of life than by the hypothesis that they express perceptions [intuitions], most of them seriously inadequate and badly distorted, of objective values" (Mackie, *Ethics*, 37). As the first half of this chapter has shown, however, the argument from relativity is a dismal failure; and, as the second half of this chapter goes on to show, a reasonable case for Minimal Intuitionism -- i.e., the existence of objective moral value and our recognition of it -- can be built on the obviously moral inadequacy of Moral Relativism.

how to prioritize competing moral principles and how to explain one's special and mysterious faculty for knowing moral values and principles?

In response, it can be pointed out that Minimal Intuitionism does not address the issue of prioritizing moral principles: that is a problem for all other ethical theories which take into account (as they surely can and seem to do and *should*) the minimal intuition concerning the objective moral value of intelligent human beings. Minimal Intuitionism is, in other words, a more fundamental theory with respect to the other theories such as, say, Contractarianism and Vital Interest Human Rights theory, and so is compatible with and foundational to those theories insofar as the intuited objective moral value of intelligent human beings is not violated. The only serious problem for Minimal Intuitionism has to do with those persons who embrace moral principles that clearly violate the objective moral value of intelligent human beings (e.g., by putting them in concentration camps and gassing them, or by gassing them while they are still at home, etc.). But this problem is not insurmountable for Minimal Intuitionism. In this case an appeal to various prudential reasons can be made, at least to some extent. In so far as the prudential reasons fail, it seems quite reasonable for the Minimal Intuitionist again to hold to the attitude we have toward the likes of Hitler -- that such parties are morally deficient, morally blind, ignorant, and/or irrational -- and treat them accordingly.

Also, no explanation of a special or mysterious faculty for knowing moral values or principles seems to be needed. Direct rational insight combined with sympathetic understanding seems capable of doing the job. But even if a special faculty is needed, this should not count heavily against Minimal Intuitionism. Stump very helpfully points out that "At this stage in our understanding of our own minds and brains, we don't know enough to identify the cognitive faculty that recognizes [moral value] intuitively. But it would be a mistake to infer that there is no such faculty."¹⁸⁴ Why? Because there is still *much* about the human mind and brain that is unknown. Moreover, and more importantly, it seems reasonable to think that knowing *that* X is the case, especially when X is as plain to us as the nose on our faces -- as is the case where X is, say, the

¹⁸⁴Stump, "Mirror of Evil," 239.

validity of *modus ponens*, or my memory of this morning's breakfast, or my perception of objects in the external world -- does not require us to know *how* we know X is the case. This point is also true, this dissertation's author submits, in the case where X is the objective moral value of intelligent human beings.

5. Objection #5: Value is a function of size?

But people are such tiny specks in the universe. Surely, in view of the vastness of the universe, they simply cannot have objective moral value.

Yes, people are tiny specks in the universe. However, importance or value is not a function of mere size. Think of the beauty of a finely cut diamond. Or think of the crucial functionality of DNA code of a living cell. Also, it very much seems that if there were only one intelligent human being in an otherwise intelligent-life-less universe, then it would seem wrong for that being to undergo suffering for no reason. Our "Adam", say, somehow has been bound to the ground by a vine (while he was sleeping), and over the next several years the wind-driven, thorn-laden branches of some nearby trees whip him continually, painfully, and slowly, to death. (He stays alive as long as he does because he manages to eat the occasional apple which drops near his face.) Without attempting to blame the vine and the trees (an illogical move), it nonetheless seems wrong that Adam should endure such suffering. Indeed, we would readily think that if there were a God, then Adam's situation would pose a serious logical problem for that God's alleged goodness. Why? Because Adam's situation is an obvious evil. Moreover, the well-known philosophical problem of evil for God's existence gains traction only if the evil is deemed objective. Yet, the objectivity of such evil seems to make sense only if intelligent human beings have objective moral value.¹⁸⁵

Richard Taylor would seem to agree. In a similar thought experiment in which there is only one sentient being such as ourselves (but he/she is not being tortured), Taylor points out the following:

¹⁸⁵For references to further discussion on the logical problem of evil and the evidential problem of evil, see the relevant footnote in the introduction to this dissertation.

[T]he judgments of this solitary being concerning good and evil are as *absolute* as any judgment can be. This man is, indeed, the measure of all things: of good things as good and of bad things as bad. Whatever he finds and declares to be good *is* good, and what he similarly finds to be evil, *is* evil. No distinction can be made, in terms of this solitary man, between what is merely good *for him* and what is good *absolutely*. Whatever is good for him *is* good absolutely; there is no higher standard of goodness.¹⁸⁶

Assuming that this solitary man was our "Adam," it would seem very reasonable to think that he (and Taylor) would judge his predicament with the tree to be evil and his life without the tree to be good, good *simpliciter*.

Significantly, then, it seems very much to be the case that the intuition that intelligent human beings have objective moral value remains, even in a big place like the universe.

6. Sub-Conclusion

Therefore, there very much seems to be philosophical space on the table of ethical options for Minimal Intuitionism. That is to say, it is reasonable to think that intelligent human beings have objective moral value -- and that we intuit this.

IV. Conclusion

The aim of this chapter has been to look for the first clue logically implied/predicted by the concept of miracle which was discussed in the previous chapter: i.e., the clue that intelligent human beings have objective moral value. By doing some moral philosophizing, a case was made for thinking that it is reasonable to believe that they (we) do. First, an examination was undertaken of the contemporary ethical theory that seems to constitute the major opposition to the belief that intelligent human beings have objective moral value: namely, Moral Relativism. It was shown that Moral Relativism's constituent theories, Normative Ethical

¹⁸⁶Richard Taylor, *Good and Evil*, 3rd edition (Amherst, New York: Prometheus Books, 2000), 168.

Relativism and Ethical Subjectivism, have some seriously debilitating flaws -- some logical, some factual, and some obviously moral. Second, by building on the obviously moral flaws of this theory, by looking at the pre-theoretic intuition that seems very much to be either working as a pre-theoretic check for some major contemporary ethical theories or working as an undergirding foundation for some other major contemporary ethical theories, and by dealing with some important objections, a cumulative case argument was set forth for Minimal Intuitionism, the view that intelligent human beings have objective moral value and we intuit this to be so. It is reasonable to think, then, that the first clue implied/ predicted by the concept of miracle has been found.

As was mentioned in the introduction to this chapter, this result is significant on its own. As was mentioned in the introduction too, also significant is that this result will be very helpful when in chapter 4 it is employed as part of a design argument which later, in chapter 5, will be employed as an integral part of a plausibility structure for miracle reports. In the next chapter -- chapter 3 -- we will look for the second clue implied/ predicted by the concept of miracle: the clue that there exists a very powerful being which/who transcends nature and can cause a physical creation to come into being.

Chapter 3

THE BIG BANG

**A finding from contemporary science
as a clue for thinking that there is
a very powerful, physically transcendent cause
which/who can produce physical stuff**

I. Introductory Remarks

Recall that the thesis of this dissertation is the following: On the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications -- when examined in the context of some implied/predicted findings from contemporary science plus some implied/predicted discernments from moral philosophy -- serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity or power to make sense of some facts which suggest such an operation. In chapter 1, the following understanding of miracle (sense 6) was set out: An event is a miracle if and only if: (1) it is extraordinary with respect to the regular course of nature in the sense that the event's occurrence is beyond nature's capacity to produce; (2) it consists of an introduction or coming into being of complex specifically structured matter/energy; (3) it is produced by a very powerful, nature-transcending and intelligent causal source of matter/energy, i.e., God or a God-like being; and (4) it is religiously significant. The first three conditions led to the following two questions: Does contemporary science provide clues for

thinking that a physical creation can come into being, caused, out of the non-physical realm? Does contemporary science provide clues for thinking that there exists a very powerful, physically transcendent, and intelligent being who can create highly complex specifically-structured physical items which, because of their highly complex and specific structure, display signs of intelligence? The fourth condition led to this question: Does moral philosophy provide clues for thinking that intelligent human beings have objective moral value? In chapter 2, the thesis that intelligent human beings have objective moral value (and we know this via intuition) was set out and defended. In chapter 3 -- the present chapter -- evidence that something physical has come out of the realm of the non-physical will be examined. As will be seen, contemporary scientific evidence for the Big Bang will be accepted as an indication that the physical universe began to exist, and it will be argued that this gives us reasonable grounds for thinking that there is a very powerful and transcendent cause of the universe. The aim of chapter 4 will be to look at some clues that give us good grounds for reasonably believing that the universe has a very powerful, transcendent, and *intelligent* cause. In chapter 5, the final chapter, it will be argued that the findings of the previous chapters (findings which make it reasonable to think that the universe has come into being in a highly complex and specifically structured way, very apparently displaying marks of intelligence, and so very apparently caused by a very powerful and intelligent matter/energy source which exists beyond the universe) seem very much to constitute an instance of the concept of miracle "writ large". It will also be argued in chapter 5 that, because the miracle writ large exists, and because its existence is implied/ predicted by the concept of miracle, this very apparent large-scale miracle enhances the plausibility of the occurrence of a small-scale miracle, given some specific historical testimony/ evidence which smacks of the miraculous.

But first things first. In the present chapter the thesis that there exists a very powerful, transcendent causal source of matter/energy will be defended. The following two questions will be asked (the first question is identical to the first question suggested to us by the first three conditions of miracle, as described above;

the second question is a slightly more modest version of the second question presented above¹): Does contemporary science provide clues or grounds for thinking that a physical creation can come into being, caused, out of the non-physical realm? Does contemporary science provide clues or grounds for thinking that there exists a very powerful cause which/who transcends nature and can have such a causal efficacy? To begin to answer these questions, the concept of cause will be clarified briefly in section II of this chapter. In section III of this chapter, it will be asserted that contemporary science gives us the clue that something physical has come out of the realm of the non-physical: that is to say, it will be asserted that the contemporary scientific evidence for the Big Bang makes it reasonable to believe that the physical universe -- space, time, matter, and energy -- began to exist. In addition, some grounds will be set out for thinking that this assertion is a reasonable assertion to believe. To answer the above questions it will also be argued at length in the subsequent sections of this chapter -- sections IV and following -- that this clue seems very much to give reasonable grounds for thinking that there is in fact a cause of the universe which/who is very powerful and physically transcendent.

To make the case for thinking that there is in fact a cause of the universe which/who is very powerful and physically transcendent, it seems reasonable to think that one should not re-invent the wheel (so to speak). Therefore, in this chapter some work by a contemporary philosopher who is very much at the forefront of thinking about the issue at hand will be presented, assessed, and built upon. The case in this chapter, then, will appeal to and build upon some arguments by William Lane Craig.²

¹The intelligence aspect of the question will be addressed in chapter 4. That is to say, the aim of chapter 4 will be to show that the very powerful and transcendent causal source of matter/energy which/who is discerned in chapter 3 can be reasonably described as intelligent.

²According to William Lane Craig and Quentin Smith, there is a "surprising gap" in the philosophical literature relating to the Big Bang (William Lane Craig & Quentin Smith, *Theism, Atheism, and Big Bang Cosmology* [Oxford: Clarendon Press, 1993], v). The work of Craig and Smith is an attempt to fill this gap. Among the various theses Craig defends is the thesis that the universe's beginning has a cause; among the various theses Smith defends is the thesis that the universe's beginning is causeless.

For a sampling of some of the literature that can be mustered as evidence to defend the claim that Craig is a contemporary philosopher who is at the forefront of thinking philosophically about the issue at hand

Craig defends the claim that the universe has a cause for its beginning with the following two main arguments: (1) An appeal to the intuitively obvious; and (2) an argument from empirical facts. In section IV of this chapter, Craig's appeal to the intuitively obvious will be set out and evaluated, and some objections from Paul Draper and Quentin Smith will be taken into account (Draper and Smith do not find intuitively obvious what Craig and others do). In section V of this chapter, Craig's argument from empirical facts will be set out and evaluated, and various objections from the following philosophers will be considered (the philosopher's main objection is described here very briefly in parentheses following the philosopher's name): J. L. Mackie (there is no *a priori* reason not to accept an uncaused origination of things); Quentin Smith (contemporary science shows that the causal principle is not confirmed in the quantum realm); Adolf Grünbaum (the argument for the causal principle equivocates on the notion of cause, confusing a *transforming* cause of previously existing matter/ energy with an *originating* cause of matter/energy); Paul Draper (the argument for the causal principle equivocates on the notion of "begins to exist", confusing beginning *within* time with beginning *with* time); Robin Le Poidevin and Jan Narveson (the notion of cause is essentially temporal, so nothing can occur *before* time, so time cannot have a cause); and David Hume (to argue from mere parts of the universe having a causal property to the whole universe having that causal property commits the fallacy of composition). Also considered, in section VI of this chapter, will be the important concern that

(i.e., that the universe's beginning has a cause), see: William Lane Craig, *The Kalam Cosmological Argument*, Library of Philosophy and Religion, series edited by John Hick (London & Basingstoke: The Macmillan Press Ltd, 1979); William Lane Craig, "God, Creation and Mr [Paul] Davies," *British Journal of Philosophy of Science* 37 (June 1986): 163-175; William Lane Craig, "Philosophical and Scientific Pointers to *Creatio ex Nihilo*," in *Contemporary Perspectives on Religious Epistemology*, edited by R. Douglas Geivett & Brendan Sweetman (Oxford: Oxford University Press, 1992); William Lane Craig, "The Origin and Creation of the Universe: A Reply to Adolf Grünbaum," *British Journal of Philosophy of Science* 43 (January 1992): 233-240; Craig & Smith, *Theism, Atheism, and Big Bang Cosmology*; William Lane Craig, "Creation and Big Bang Cosmology," *Philosophia Naturalis* 31 (1994): 217-224; William Lane Craig, "Theism and Physical Cosmology," in *A Companion to Philosophy of Religion*, edited by Philip L. Quinn & Charles Taliaferro, Blackwell Companions to Philosophy (Oxford: Blackwell Publishers, Ltd., 1997), 419-425; William Lane Craig, "The Ultimate Question of Origins: God and the Beginning of the Universe," *Astrophysics and Space Science* 269-270 (1999): 723-740; William Lane Craig, "Naturalism & Cosmology," in *Naturalism: A Critical Analysis*, edited by William Lane Craig & J. P. Moreland (London & New York: Routledge, 2000), 215-231.

the aforementioned arguments as well as this chapter's defence against objections make an illegitimate appeal to a Kantian *a priori* principle of causality which says more about *us* than the actual world (according to this objection we project the principle of causality onto a realm, the noumenal realm, for which the principle is not applicable). By looking at Craig's arguments and by addressing the various objections and the Kantian concern, a case will be made for thinking that it is reasonable to believe that the universe has a (real) cause for its beginning. In addition, in section VII, some reasons for thinking that this cause is very powerful and physically transcendent will be set out.³

II. A Clarification Concerning Cause

For the sake of clarity, it should be noted at this juncture that the notion of cause in which we are interested is that of a "creating cause" (*creatio originans*), not a "sustaining or conserving cause" (*creatio continuans*).⁴ Craig explains: "We are not looking here for any continual ground of being, but for something that brings about the inception of existence of another thing."⁵ In other words -- words from Antony Flew's *A Dictionary of Philosophy* -- the notion of cause in which we are interested here consists of that "relationship between two events or states of affairs such that the first brings about [or produces] the second."⁶ Whether

³The question of whether the Big Bang is merely a part of a so-called multiverse or multiple universe scenario will be discussed in chapter 4. In chapter 4 it will be argued that multiple universe theories are weakly supported. In chapter 4 it will also be argued that even if multiple universe theories are true, it would be reasonable to think that there is a very powerful, transcendent, and intelligent cause of the beginning of our universe. Note: In the last sentence the word "transcendent" is understood as outside of or beyond our universe, and the words "our universe" are understood, in D. H. Mellor's words, as "everything, past, present, and future, in the single space-time whose earliest point is our Big Bang" (D. H. Mellor, "Too Many Universes," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson [London & New York: Routledge, 2003], 221).

⁴Craig, *The Kalam Cosmological Argument*, 148.

⁵Craig, *The Kalam Cosmological Argument*, 141.

⁶Antony Flew, editor, *A Dictionary of Philosophy* (London, England: Pan Books Ltd., 1984), 58. Because Flew is a well-known and outspoken atheist philosopher, Flew's definition is set out here to show that Craig's

the first of the states of affairs involves immaterial agent causation is an open question.⁷

III. Some Evidence for the Big Bang

So, it will be asked once again: Does contemporary science provide clues or grounds for thinking that a physical creation can come into being, caused, out of the non-physical realm? Does contemporary science provide clues or grounds for thinking that there exists a very powerful cause which/who transcends nature and can have such a causal efficacy? As mentioned above, to answer these questions it will be asserted (here) that contemporary science gives us the clue that something physical has come out of the realm of the non-physical: that is to say, it will be asserted (here) that the contemporary scientific evidence for the Big Bang makes it reasonable to believe that the physical universe -- space, time, matter, and energy -- began to exist. Also, some

conception of cause is not peculiar to Craig or to theists. (For an interesting exchange between Craig and Flew on the topic of God's existence, see *Madison Debate: Does God Exist? A Debate between Dr. William Lane Craig and Dr. Anthony Flew* [2100 Twentyonehundred Productions, 1998], videocassette.) Anthony Quinton defines causality essentially the same as Flew and Craig do. According to Quinton, causality is "The relation between two events or states of affairs in which one brings the other about or produces it" (Anthony Quinton, "Causality (or causation)," in *The New Fontana Dictionary of Modern Thought*, edited by Alan Bullock & Stephen Trombly [London: HarperCollins Publishers, 1999], 109).

⁷A causal agent, it seems, is a state of affairs, whether those affairs involve an immaterial personal substance or whatever. According to atheist Michael Tooley, even "[t]he existence of God is ... a state of affairs" (William Lane Craig & Michael Tooley, "A Classic Debate on the Existence of God," [Boulder, Colorado: University of Colorado, November 1994], 11). Elsewhere, Tooley describes states of affairs as being of three sorts: "First, those that consist of the existence of an individual possessing an intrinsic nature. Second, those that consist of the possession of properties by such individuals. Third, those that involve relations among two or more such determinate individuals." (Michael Tooley, *Causation: A Realist Approach* [Oxford: Clarendon Press, 1988], 118). God or a God-like being, it seems, could be appropriately described in terms of all three of these sorts of states of affairs (where "individual" is understood broadly as including a being who is an immaterial, intelligent agent).

As noted in the introduction to this dissertation, it will be assumed in this dissertation that the concept of an immaterial, intelligent causal agent makes sense. For a defence of this view, see Stephen T. Davis, "God's Actions," in *In Defense of Miracles: A Comprehensive Case for God's Action in History*, edited by R. Douglas Geivett & Gary R. Habermas (Downers Grove, Illinois: InterVarsity Press, 1997), 163-177. For a defence of concept of God, see Charles Taliaferro, "The Possibility of God: The Coherence of Theism," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 239-258. The concept of cause will be discussed in more detail later in this chapter (sections IV-B-2 & IV-B-3) as various objections are considered.

grounds will be set out for thinking that this assertion is reasonable to believe as true: first, an appeal to authority will be made; second, a sketch of the scientific evidence for the Big Bang will be set out; third, a list of references will be provided (in a footnote).

1. Appeal to Authority.⁸ That the Big Bang occurred (about 13.7 billion years ago) is pretty much established by the scientific community.⁹ Speaking of his fellow scientists, University of Cambridge theoretical physicist Stephen Hawking points out that "nowadays nearly everyone assumes that the universe started with a big bang singularity."¹⁰ Also, Hawking points out, "almost everyone now believes that the

⁸According to R. H. Johnson and J. A. Blair, the conditions for a legitimate appeal to authority are the following: "1. An appeal to authority to support the claim is appropriate. 2. The source appealed to is capable of knowing if the claim is true or plausible. 3. There is a broad consensus among [relevant] authorities. 4. The source appealed to is credible." (R. H. Johnson & J. A. Blair, *Logical Self-Defense*, 3rd edition [Toronto: McGraw-Hill Ryerson, 1993], 165.) It seems very much that the above appeal to some well-known and respected scientists satisfies Johnson and Blair's conditions for a legitimate appeal to authority.

⁹As was noted in the introduction to this dissertation, it should be acknowledged that to call something "established by the scientific community" is to admit corrigibility and tentativeness concerning that something, especially since scientific consensus can change quickly and drastically due to new discoveries in science.

¹⁰Stephen Hawking, *A Brief History of Time: The Updated and Expanded Tenth Anniversary Edition* (New York: Bantam Books, 1996), 53. It should be noted that to say that at there is a singularity at the beginning of the universe is to say that "[t]he universe is infinitesimally small and infinitely dense (i.e., a mathematical singularity)." ("The Big-Bang Theory," in *Oxford Dictionary of Science*, 4th edition, edited by Alan Isaacs, John Daintith & Elizabeth Martin [Oxford: Oxford University Press, 1999], 85.) Craig clarifies: "This should not be taken to mean that the density of the universe takes on a value of [aleph-null], but rather that the density of the universe is expressed by a ratio of mass to volume in which the volume is zero; since division by zero is impermissible, the density is said to be infinite in this sense." (William Lane Craig, "The Cosmological Argument," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser [London & New York: Routledge, 2003], 131n.) In other words, at time zero the universe is a mathematical point which has zero physical size.

It should be noted too that Hawking tries to get rid of the Big Bang singularity in an attempt to have a beginningless finite past; but his project seems very much to fail. Hawking mistakenly infers realist consequences from an instrumentalist theory. Another problem, even if Hawking were to succeed in getting rid of the singularity, is that Hawking's view still requires a beginning of the universe, albeit a beginning that does not begin with a singularity. Beginnings could consist of a multitude of points. For a defence of these criticisms of Hawking's work, see: William Lane Craig, "What Place, Then, for a Creator?: Hawking on God and Creation," in *Modern Cosmology & Philosophy*, edited by John Leslie (Amherst, New York: Prometheus Books, 1998), 319-388; and William Lane Craig, "The Ultimate Question of Origins: God and the Beginning of the Universe," *Astrophysics and Space Science* 269-270 (1999): 730-733. Further discussion of these points will be considered beyond the scope of this dissertation.

In this dissertation, then, it will be assumed that the scientific consensus holds that the Big Bang

universe, and time itself, had a beginning at the big bang."¹¹ Macquarie University of Sydney astrophysicist Paul Davies agrees: "Cosmologists are convinced that the Big Bang was the coming-into-being, not just of matter and energy, but also of space and time as well."¹² Stephen Barr, a physicist at the Bartol Research Institute at the University of Delaware, agrees too. According to Barr, "Most physicists tend to think of the Big Bang as really being the beginning of the physical universe, and with it, the beginning of time itself."¹³ In addition, University of Oxford professor of astrophysics and astronomy Joseph Silk writes: "The big bang theory has become the universally accepted scientific explanation of our cosmic origins."¹⁴ Also, University of London astrophysicist Peter Coles writes: "[T]he case in favour of the Big Bang is, in my view, proven beyond all reasonable doubt."¹⁵

2. A Very Brief Sketch of Some Evidence for the (Hot) Big Bang.¹⁶ (a) The general theory of

singularity as described above is in fact the case. Nevertheless, it should be acknowledged that, as the historian and philosopher of science J. B. Kennedy points out, many contemporary physicists "expect that general relativity will someday be superseded just as Newton's theories were. . . . Someday, they believe, a quantum theory of gravity will replace general relativity and, they hope, make [naturalistic] sense of singularities." (J. B. Kennedy, *Space, Time and Einstein* [Montreal, Kingston & Ithaca: McGill-Queen's University Press, 2003], 191.) Until this hope is realized, it seems reasonable to continue with this dissertation's assumption that it has not, all the while acknowledging that it might.

¹¹Stephen Hawking & Roger Penrose, *The Nature of Space and Time*, Princeton Science Library (Princeton & Oxford: Princeton University Press, 1996), 20. In other words, all of matter, energy, space and time came into being at the Big Bang singularity.

¹²Paul Davies, "The Appearance of Design in Physics and Cosmology," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 149-150.

¹³Stephen M. Barr, *Modern Physics and Ancient Faith* (Notre Dame, Indiana: University of Notre Dame Press, 2003), 47.

¹⁴Joseph Silk, *The Big Bang*, 3rd edition (New York: W. H. Freeman & Co., 2001), xiii.

¹⁵Peter Coles, *Cosmology: A Very Short Introduction*, Very Short Introductions series (Oxford: Oxford University Press, 2001), 129.

¹⁶This brief sketch is gleaned from the works listed in the footnote set out under References (below) and presents only the most famous lines of evidence. A personal note/confession from the author of this dissertation: I readily admit that I am not a scientist, so I am simply accepting in good faith the evidence from the scientists who are experts in the relevant fields. In other words, my appeal to authority continues.

relativity. In 1915, the now famous German-born U.S. physicist Albert Einstein introduced the general theory of relativity which later, with the help of the Russian meteorologist/mathematician/physicist Alexander Friedman (1922) and Belgian priest/physicist Georges Lemaître (1927), became the theoretical foundation for thinking that matter and energy had a beginning in the finite past; and then, in 1970, the University of Oxford mathematician/physicist Roger Penrose and the University of Cambridge's Stephen Hawking developed a space-time theorem of general relativity which shows that space and time had a beginning in the finite past.¹⁷ (b) Expanding universe. In 1929, the American astronomer Edwin Hubble provided astronomical evidence which shows that the universe is expanding. The expanding universe confirmed the general theory of relativity. David W. Snoke, a physicist and astronomer at the University of Pittsburgh, explains: "If the universe is expanding, then the universe was smaller at earlier times. A simple *extrapolation* backwards in time implies that if the universe was smaller at earlier times, then it must have been completely crunched together at one point in time."¹⁸ (c) Cosmic microwave background radiation. In 1965, the Bell Laboratories physicists Arno Penzias and Robert Wilson discovered the cosmic background radiation. This radiation was determined to be a relic of the past which confirms that the universe began as a super-hot explosion. (d) Various confirmations and refinements of (a), (b), and (c) from more recent scientific discoveries. For example, further scientific work shows that the general theory of relativity has become "the most accurately tested theory known to science."¹⁹ Also, Hubble's and Penzias' and Wilson's observations have been confirmed by state of the art telescopes and sensors operating in space (e.g., the Hubble Space

¹⁷It might be objected that the words "time coming-into-being" or "time has a beginning" *have no meaning*. It will be assumed that Hawking and Penrose and company know what they are talking about here. The objection that time cannot have a cause because causation is essentially temporal will be examined later in this chapter in sections V-B-4 and V-B-5.

¹⁸David W. Snoke, *Natural Philosophy: A Survey of Physics and Western Thought* (Colorado Springs, Colorado: Access Research Network, 2003), 308; italics in the original. Presumably the commencement of the "unpacking" of this completely crunched togetherness coincided with the first point in time.

¹⁹Roger Penrose, *Shadows of the Mind* (New York & Oxford: Oxford University Press, 1994), 230.

Telescope, the Cosmic Background Explorer Spacecraft, the Microwave Anisotropy Probe).

3. References. See the following footnote for references to books and articles that set out the evidence for the Big Bang in much greater detail.²⁰

Thus, contemporary scientific evidence for the Big Bang makes it reasonable to believe that the physical universe -- space, time, matter, and energy -- began to exist. The question now is: Does the universe's beginning have a cause?²¹

²⁰For some readable introductory descriptions of the evidence for the Big Bang, see: "Big Bang theory," in *Astronomy Encyclopedia*, edited by Patrick Moore (Oxford: Oxford University Press, 2002), 52-53; Coles, *Cosmology*, chapter 5; John Gribbin, "Big Bang," in *Companion to the Cosmos* (Boston: Little, Brown and Company, 1996), 51-56; Robert Jastrow, *God and the Astronomers*, 2nd edition (New York & London: W. W. Norton & Company, Inc., 1992); Paul Parsons, *The Big Bang: The Birth of Our Universe* (New York: DK Publishing, Inc., 2001); Hugh Ross, "A Beginner's -- and Expert's -- Guide to the Big Bang," *Facts for Faith: The Christian Apologetics Data Update* 3 (2000), 14-32. For more detailed descriptions, see: Edward Harrison, *Cosmology: The Science of the Universe*, 2nd edition (Cambridge: Cambridge University Press, 2000); and Silk, *The Big Bang*. For a helpful summary critique of some models of the universe which attempt to show that the universe had no beginning -- e.g., the Steady State model, the No Boundary proposal -- see: William Lane Craig, "The Ultimate Question of Origins: God and the Beginning of the Universe," *Astrophysics and Space Science* 269-270 (1999): 723-740; and William Lane Craig, "Naturalism & Cosmology," in *Naturalism: A Critical Analysis*, edited by William Lane Craig & J. P. Moreland (London & New York: Routledge, 2000), 215-231. For a summary critique of the very recent Quasi-Steady-State model, see Robert Ehrlich, "There Was No Big Bang," in *Nine Crazy Ideas in Science* (Princeton & Oxford: Princeton University Press, 2001), 194-214.

²¹It might be asked/objected here: "Why shouldn't we be able to ask 'did the cause of the universe begin to exist' if we have to ask 'did the physical universe begin to exist'?" The idea seems to be that if there is no need to ask about the beginning of the cause of the universe's beginning, then we should not need to ask about the universe's beginning having a cause. The astrophysicist Paul Parsons puts the matter this way (substitute "cause" for Parson's "creator"): "If there exists a creator, then what created the creator? And so on [i.e., we end up with an infinite regression]. Deciding, *ad hoc*, that the creator requires no creator is groundless. Why not simply say that the Universe requires no creator?" (Parsons, *The Big Bang*, 32.) In response it should be noted that the above questions can be asked, but they are simply not a relevant concern. Indeed, there seems to be no context-related reason to raise the questions. Thus far in this chapter we have been looking at the evidence for the Big Bang, and the evidence for the Big Bang gives us a universe that has a beginning for its existence. What is philosophically interesting is that our universe began. It is interesting because we usually think that (as will be argued in this chapter) whatever begins to exist has a cause for its beginning. In other words, we are interested in the cause of the universe's beginning because we have pretty good evidence that the universe does in fact have a beginning and so (as will be argued) it seems reasonable to infer that the universe has a cause for its beginning. Now, and this point some thinkers such as Parsons seem to miss: We have no evidence whatsoever that the *universe's cause* has a beginning, so, although we can ask the question of when or if it began to exist, we have no evidence for thinking that it did -- unlike the situation with the universe. And it should be added: Even if the universe's cause, be it God or a God-like being, began to exist

IV. Appeal to the Intuitively Obvious

A. Exposition

Craig's first line of defence of the claim that the universe has a cause for its beginning is an appeal to the thesis that the claim's truth is intuitively obvious. According to Craig, "our conviction of the truth of the causal principle [that whatever begins to exist has a cause for its existence] is ... based ... upon the metaphysical intuition that something cannot come out of nothing."²² The idea seems to be that if it is true that out of nothing nothing comes, then if something begins to exist, it had to come out of, be produced by, something -- which is to say that whatever begins to exist has a cause for its existence. Also, says Craig, "The principle *ex nihilo nihil fit* seems to me to be a sort of metaphysical first principle, one of the most obvious truths we intuit when we reflect seriously."²³ Adds Craig rhetorically: "[I]f prior to the existence of the universe, there was absolutely nothing -- no God, no space, no time -- how could the universe possibly come to exist?"²⁴ The claim, then, that the universe began to exist without a cause is "too incredible to be believed,"

and has a cause (or causes), so what? In this chapter we simply are not interested in the cause of the universe's cause's beginning, even if it (the universe's cause) did have a beginning. Why not? *Because we have no evidence for its beginning.* However, we *are* interested in the fact that the universe may have a cause, *because the universe gives us evidence for thinking that the universe began.* So it is reasonable to ask: Does the universe have a cause? Also, it is reasonable to ask, if it turns out that the universe has a cause: What, then, are we to make of the universe's cause, whether it began or not? To answer these reasonable questions, chapter 3 makes a case for thinking that universe does have a cause and that this cause is very powerful and universe-transcendent. That, it seems to this dissertation's author, is a significant finding -- even if we do not know whether this cause was caused or not. In other words, to question the direction this chapter's argument takes on the ground that we do not know whether the universe's cause is caused or not is to raise an irrelevant consideration, a Red Herring.

²²William Lane Craig, "The Caused Beginning of the Universe," in *Theism, Atheism, and Big Bang Cosmology*, by William Lane Craig & Quentin Smith (Oxford & New York: Clarendon Press, 1993), 147.

²³Craig, "The Caused Beginning of the Universe," 156.

²⁴William Lane Craig, *Reasonable Faith: Christian Truth and Apologetics* (Wheaton, Illinois: Crossway Books, 1994), 93.

it is a "pretty hard pill to swallow."²⁵

According to Craig, we can *imagine* that the universe began to exist without a cause. As Hume has pointed out:

The separation . . . of the idea of a cause from that of a beginning of existence, is plainly possible for the imagination; and consequently the actual separation of these objects is so far possible, that it implies no contradiction or absurdity; and is therefore incapable of being refuted by any reasoning from mere ideas; without which 'tis impossible to demonstrate the necessity of a cause.²⁶

But, as Craig argues (following Elisabeth Anscombe), from the fact that we can *imagine* or *picture* something coming into existence without a cause and even give our picture a title (e.g., "Rabbits Emerging from the Singularity"), it does not follow that it is a *real-world possibility* that something can come into existence without a cause.²⁷ Indeed, according to Craig, "All Hume has really shown is that the principle 'everything that begins to exist has a cause of its existence' is not analytic and that its denial, therefore, does not involve a contradiction or a *logical* absurdity."²⁸ Thus, according to Craig, it remains intuitively obvious that the universe has a cause for its beginning.

²⁵Craig, *The Kalam Cosmological Argument*, 142.

²⁶David Hume, *A Treatise of Human Nature*, edited by L. A. Selby-Bigge, 2nd edition, revised by P. H. Nidditch (Oxford: Clarendon Press, 1978), 79-80. The necessity to which Hume here is referring seems to be logical necessity, which for Hume is the only necessity which can hold in the relations between ideas.

²⁷Craig, "The Caused Beginning of the Universe," 147n. Cf. G. E. M. Anscombe, "'Whatever Has a Beginning of Existence Must Have a Cause': Hume's Argument Exposed," *Analysis* 34 (1973-1974): 150.

²⁸Craig, *Kalam*, 145. Hume would agree with Craig on this particular point. As Craig points out (in *Reasonable Faith*, 93), Hume wrote the following to John Stewart: "But allow me to tell you that I never asserted so absurd a Proposition as *that anything might arise without a cause*: I only maintain'd, that our Certainty of the Falsehood of that Proposition proceeded neither from Intuition nor Demonstration, but from another source [i.e., a feeling arising from custom]." (David Hume, *The Letters of David Hume*, Volume 1, edited by J. Y. T. Greig [Oxford: Clarendon, 1932], 94.) Hume has other objections concerning the legitimacy of applying the causal principle to the universe, as we will see later in this chapter and in chapter 4.

B. Evaluation

Is Craig's appeal to the intuitively obvious convincing? It seems to the author of this thesis that it is. But what about the person who claims that the truth of the causal principle is *not* intuitively obvious? Answer (said with gentleness and respect): *Reflect some more*. Reflect on what it means to say that prior to the beginning of the universe's existence there is *absolutely nothing out of which it comes*. It means, as Craig has pointed out, that there is no space, no time, and no deity. It also means that there is *no being whatsoever* -- i.e., that there are *absolutely no necessary or sufficient conditions for being*; that there is *absolutely no potential for being*; and that there is *absolutely no ground for being*. J. P. Moreland elaborates: "Nothingness has no nature and thus it has no exigency or internal striving toward the production of *any* state of affairs...."²⁹ Craig writes: "[I]t seems inconceivable that the universe should become actual if there did not exist any potentiality for its existence."³⁰ It should be added that it seems inconceivable that *anything* should become actual if there did not even exist the possibility of actuality. We are, after all, talking about *absolute nothingness*. Surely, a few moments of reflection *will* make fairly obvious the truth that from nothing -- from *absolutely nothing* -- nothing comes. In other words, Brian Davies seems very much to be correct: "[T]o know that something began to exist seems already to know that it has been caused."³¹ Craig, then, seems very much to be mistaken, as is Hume, to believe that he, and Hume, could *imagine* something coming into existence without a cause; after all, if X is inconceivable, then X cannot be imagined.³² In other words, the separation

²⁹J. P. Moreland, *Scaling the Secular City: A Defense of Christianity* (Grand Rapids, Michigan: Baker Book House, 1987), 41.

³⁰William Lane Craig, "Creation and Big Bang Cosmology," *Philosophia Naturalis* 31 (1994): 219.

³¹Brian Davies, *An Introduction to the Philosophy of Religion*, 2nd edition, OPUS Series, series edited by Christopher Butler, Robert Evans, & John Skorupski (Oxford & New York: Oxford University Press, 1993), 77.

³²Try to imagine, say, a square circle. So "inconceivability" here is understood more in terms of being due to logical considerations (i.e., contradictions) rather than psychological considerations (i.e., a paucity of the powers of imagination).

of the idea of a cause -- i.e., *all* causes, not just a *particular* cause -- for something's existence from the idea of that thing's beginning of existence seems to be, *pace* Hume, not a wholly complete separation. The idea of a thing's beginning of existence seems to carry with it the notion of having a connection to *a* cause, though not to some specific cause. (Rabbits coming into being may not be caused by parent rabbits but instead by scientists working with test tubes; still their coming into being has *a* cause.) Also, *pace* Craig and Anscombe, our alleged picturing something coming into existence without a cause and labeling our picture with the title "Rabbits Emerging from the Singularity" seems to smuggle potential rabbits onto our picture screen from our mental "projectors" rather than demonstrate the conceivability of something actually coming from nothing. Though a mistake, this mistake counts in favour of Craig's argument. Surely, if a view squares with one's basic reflective intuitions *and* the view's denial seems very much to be inconceivable, then that counts very strongly in favour of that view. Surely, the metaphysical first principle *ex nihilo nihil fit* quite readily squares with one's basic reflective intuitions, *and* the denial of the truth of this metaphysical first principle seems very much to be inconceivable, so the truth of the principle is strongly supported. In addition, if a view squares with one's basic reflective intuitions and the view's denial seems very much to be inconceivable, then the burden of proof resides on those who continue to disagree with the thesis.³³ As Craig rightly points out via a rhetorical question: "Isn't the burden of proof on the denier of the obvious?"³⁴ So, if the denial of the obvious fails, the obvious remains. Thus, it seems quite correct to agree with Craig: it is intuitively obvious that the universe has a cause for its beginning.³⁵

³³Again, keep in mind that the notion of inconceivability in use here arises from what seems very much to be logical contradictions (e.g., X becoming actual even though there did not exist any potentiality for X's existence), not a mere failure of imagination due to intellectual dullness.

³⁴William Lane Craig, personal e-mail correspondence with Hendrik van der Breggen, December 10, 1997.

³⁵Craig seems to suspect the moral and mental integrity of those people who doubt that the beginning of the universe is caused. According to Craig, the principle that whatever begins to exist has a cause for its existence "is so intuitively obvious that I think scarcely anyone could sincerely believe it to be false" (Craig, *Reasonable Faith*, 92). Also, Craig writes: the causal principle "is so intuitively obvious, especially when applied to the universe, that probably no one in his right mind *really* believes it to be false" (Craig, *The Kalam*

1. Objection from Draper

Interestingly, Paul Draper does *not* agree with Craig's (and Moreland's, Davies', my and probably many others') basic reflective intuitions on this matter. What is especially interesting is *why* Draper does not agree, not merely *that* Draper does not agree. Draper argues as follows:

Craig . . . claims that [whatever begins to exist has a cause of its existence] is intuitively obvious -- that it needs no defense at all. But it is far from obvious that a universe that begins to exist with time needs a cause of its existence. Like an infinitely old universe, a universe that begins to exist with time has always existed -- for any time *t*, the universe existed at *t*. And . . . it's far from obvious that something that has always existed requires a cause for its existence.³⁶

And so, Draper would have us think, we should not accept the alleged obviousness of the truth of the causal proposition, that whatever begins to exist has a cause of its existence.

Draper, however, seems to have inadvertently distorted or "blinded" his basic reflective intuition concerning the causal proposition. How? By committing the fallacy of equivocation. Draper's argument can be restated more clearly as follows (with the culprit terms italicized and flagged parenthetically with "instance 1" and "instance 2"):

In the case of an infinitely old universe, the fact that it *always existed* (instance 1) makes a cause unnecessary.

But a finitely old universe is like an infinitely old universe in the sense that for any time *t*, the finitely old universe existed at *t* -- which is to say that it too *always existed* (instance 2).

Therefore, a finitely old universe is also like an infinitely old universe in the sense that a cause is unnecessary.

Cosmological Argument, 141). Whether or not Craig's suspicions are ultimately on target will not be decided here. Nevertheless, it seems that at least some people can sincerely and with sound mind doubt that the beginning of the universe is caused, because they simply have not reflected on the matter with the needed care -- as the upcoming discussion of Draper's and Smith's objections will confirm.

³⁶Paul Draper, "A Critique of the *Kalam* Cosmological Argument," in *Philosophy of Religion: An Anthology*, 3rd edition, edited by Louis P. Pojman (Belmont, California: Wadsworth Publishing Company, 1998), 46. Draper's critique appears for the first time in print in Pojman's anthology.

In the first instance, Draper takes the words "always existed" to mean *forever*, that is, *the time an infinitely old universe has existed*. In the second instance, Draper takes the words "always existed" to mean *each and every moment t in a finite span of time*. In the first instance, Draper correctly points to the fact that it truly is not obvious that a beginning cause is needed for a universe which has always existed in the sense of having existed an infinite span of time. But then Draper takes this correct point -- this correct lack of obviousness in the case of a universe that always existed over an infinite span of time -- and applies it to the case of a universe that always existed over only a finite span of time. But from the fact that an infinitely old universe does not need a cause for its beginning, it does not seem to follow that a finitely old universe does not need a cause for its beginning. Why not? Because the intuitively obvious principle, whatever begins to exist has a cause of its existence, still clearly applies to whatever begins to exist, which in this case is the universe.³⁷

2. Objection from Smith

Also, Quentin Smith does not agree with Craig's (and Moreland's, Davies', my and probably many others') basic reflective intuitions concerning the causal proposition either. Why? Because, says Smith, "I can conceive of something beginning to exist without a cause."³⁸ Adds Smith:

³⁷Concerning Draper's argument (above), one might at this point begin to have a suspicion that the alleged lack of obviousness (in Draper's view) of the need for a cause of a universe that has existed an infinite span of time may be due to Draper not attending carefully to, say, an atemporal-contingency-version of the cosmological argument. As interesting as investigating this suspicion might be, further discussion of this matter will be considered beyond the scope of this dissertation. For a good discussion of the atemporal-contingency-version of the cosmological argument, see William J. Wainwright, *Philosophy of Religion*, 2nd edition (Belmont, California: Wadsworth Publishing Company, 1999), 42-51.

Ironically, Draper charges *Craig* with the fallacy of equivocation in the same essay in which (as has been shown above) Draper commits the fallacy of equivocation. Draper's charge will be examined in section III-B-3 of this chapter.

³⁸Quentin Smith, "A Criticism of A Posteriori and A Priori Arguments for a Cause of the Big Bang Singularity," in *Theism, Atheism and Big Bang Cosmology*, by William Lane Craig & Quentin Smith (Oxford: Clarendon Press, 1993), 182.

I can conceive of the universe existing at a certain time t (say at the time of the Big Bang singularity), such that (a) there is no time earlier than t , (b) nothing else exists at t , (c) nothing timelessly exists that causes the universe to begin to exist, and (d) there are no closed timelike curves whereby 'later' parts of the universe cause the universe to exist at t .³⁹

But a serious problem arises with (c). If the word "nothing" is taken to be nothing in the strict sense, then it would not only be true that there is nothing before the universe but it would also be true that there is nothing capable out of which the universe could arise. If no being whatsoever exists, then (as was pointed out previously) there would be *absolutely no necessary or sufficient conditions for any being at all*, there would be *absolutely no potential for being*, and there would be *absolutely no ground for being*. But this means that there would be no being in which or out of which a beginning of any sort could occur, let alone the beginning of a universe. In other words, there would be, as it were, *no room* for anything -- beginnings of being included. Surely, a beginning of any sort in such a "circumstance" *is* inconceivable.⁴⁰

However, let us say, for the sake of argument, that a beginning of existence out of nothing is not inconceivable. Does it follow that the obviousness of the truth of the causal principle is seriously impinged? We should think not. Why? Because the *mere conceivability* of the falsity of the causal principle would have to weigh against the *very apparent obviousness* of the truth of the causal principle, and the former does not seem to weigh heavily at all against the latter. Mere logical possibility of doubt is not the same as implausibility or improbability. The fact that I can conceive of the possibility that I do not have a nose on my face does not impinge seriously on the obviousness of the truth that I do have a nose on my face. Following Wittgenstein (sort of), we could quite reasonably say that to *conceive* of a doubt is not the same as *actually*

³⁹Smith, "A Criticism of A Posteriori and A Priori Arguments for a Cause of the Big Bang Singularity," 182.

⁴⁰In section V-B-2 of this chapter, we will investigate Smith's claim that the emergence of particles out of a quantum vacuum is an instance of matter/energy coming out of nothing and therefore an empirical counterexample to the causal principle.

having warrant for that doubt.⁴¹

Hence, the apparent obviousness of the truth of the causal principle remains.⁴²

V. The Argument from Empirical Facts

A. Exposition

Craig's argument from empirical facts defends the causal proposition -- that whatever begins to exist has a cause of its existence -- by appealing to our "absolutely overwhelming" experience of its veracity.⁴³ According to Craig, our experience confirms the causal proposition over and over again. "Constantly verified and never falsified, the causal proposition may be taken as an empirical generalisation enjoying the strongest support experience affords."⁴⁴ Thus, because the universe began to exist, the universe has a cause for its existence.

⁴¹Wittgenstein stated that to *imagine* a doubt is not the same as *actually being* in doubt, which would also apply in the above case against Smith, albeit in a psychological rather than philosophical way. For Wittgenstein's claim, see Ludwig Wittgenstein, *Philosophical Investigations*, translated by G. E. M. Anscombe (Oxford: Basil Blackwell, 1958), #84, p. 39e.

⁴²At this juncture, a Kantian sort of objection might be raised: i.e., one might object that the critique of Draper and Smith only seems to succeed, but does not really succeed, because the causal principle is "projected" onto and beyond the world. This objection will be bracketed for now and will be addressed (as was mentioned in the chapter introduction) in a later section (section V). It will be said here, though, that the above critique of Draper and Smith remains intact in the face of the Kantian sort of objection.

⁴³Craig, *The Kalam Cosmological Argument*, 145. According to Craig, the purpose of his argument from empirical facts "was in its original context [i.e., in Craig's *Kalam*] a last-ditch defence of the [causal] principle designed to appeal to the hard-headed empiricist who resists the metaphysical intuition that properly grounds our conviction of the principle." (Craig, "The Caused Beginning of the Universe," 147n.)

⁴⁴Craig, *The Kalam Cosmological Argument*, 145.

B. Evaluation

Is the argument from empirical facts cogent? Although Craig's claim that the causal proposition enjoys "the strongest support experience affords" may be an overstatement, and although the following objections from Mackie, Smith (again), Grünbaum, Draper (again), Le Poidevin, Narveson, and Hume are impressive (at least initially), it seems that Craig's argument from empirical facts is a strong one -- and can be made to be even stronger.

1. Objection from Mackie

Mackie objects to any allegedly empirically-supported claim that the universe's beginning (whether with or in time) is caused because "there is *a priori* no good reason why a sheer origination of things, not determined by anything, should be unacceptable"⁴⁵ According to Mackie (following Hume), "we can certainly conceive an uncaused beginning-to-be of an object," and so "if what we can thus conceive is nevertheless in some way impossible, this still requires to be shown."⁴⁶

Mackie's objection fails, however. Consider the following reasons. First, as was argued in a previous section (section IV-B), careful reflection on the causal proposition shows that the truth of the causal proposition is intuitively obvious. To say, as Mackie does, that there is a sheer origination of something with no causal determination whatsoever means, in the case of the universe, that prior to the beginning of the universe's existence there is *absolutely nothing out of which it comes*. It means that there is no space, no time, no matter, no energy, no deity. It also means that there is *no being whatsoever* -- i.e., that there are *absolutely no necessary or sufficient conditions for being*; that there is *absolutely no potential for being*; and that there

⁴⁵J. L. Mackie, *The Miracle of Theism: Arguments for and against the existence of God* (Oxford & New York: Clarendon Press, 1982), 94.

⁴⁶Mackie, *The Miracle of Theism*, 89.

is *absolutely no ground for being*. As pointed out previously, it seems inconceivable that *anything* should become actual if there did not even exist the possibility of actuality, which is what *no being whatsoever* seems to imply. We are, after all, talking about *absolute nothingness*. Surely, a few moments of reflection *will* make fairly obvious the truth that from nothing -- from *absolutely* nothing -- nothing comes. And so, with Davies, we can agree (again) that "to know that something began to exist seems already to know that it has been caused."⁴⁷ Second, even if we were to concede that it is *conceivable* that the universe began without a cause, this does not give us *adequate grounds* for thinking that the universe really so began. Surely, the mere fact that it is conceivable that rabbits can be pulled out of a hat, that is, plucked out of "thin air" or nothing, does not provide us with sufficient evidence for believing that such feats actually occur. Indeed, Craig asks (rhetorically): "Does [Mackie] believe that it is really possible that, say, a raging tiger should suddenly come into existence uncaused out of nothing in the room in which he is now reading this article? How much the same would this seem to apply to the entire universe!"⁴⁸ Bare logical or even physical possibility, then, is not good enough, epistemically speaking. Again (following Wittgenstein, sort of), the *conceiving* of a doubt (in this case, Mackie's doubt about the beginning of the universe having a cause) is not the same as *having actual warrant* for that doubt.⁴⁹ Third, even Mackie wavers against his own objection by admitting that the causal proposition has "some plausibility" because "it is constantly confirmed in our experience" and, Mackie adds

⁴⁷Davies, *An Introduction to the Philosophy of Religion*, 77.

⁴⁸William Lane Craig, "Professor Mackie and the *Kalam* Cosmological Argument," *Religious Studies* 20 (September 1984): 372.

⁴⁹Wittgenstein, *Philosophical Investigations*, #84, p. 39e. At this juncture, one might wish to reply that the situations with the rabbit and the tiger popping into existence are not analogous to the situation of the whole universe popping into existence because the former situations are but a mere part of a whole whereas the latter is the whole itself. This fallacy of composition objection (from Hume) will be addressed and refuted in section V-B-6. The point being made above, then, remains: bare logical possibility of X's occurrence, or even bare physical possibility of X's occurrence, is not sufficient grounds for thinking that X *actually* occurred.

parenthetically, it is "also used, reasonably, in interpreting our experience."⁵⁰ Indeed, the causal proposition can reasonably be understood to be a heuristic device for scientific discovery. Thus, Mackie's *a priori* objection seems very much to falter against the weight of the reasons to the contrary.

It is interesting to note that, in his wavering against his own objection, Mackie adds that "in so far as we find this [i.e., an unexplained causeless beginning] improbable, it should cast doubt on the interpretation of the big bang as an absolute beginning of the material universe; rather, we should infer that it must have had *some* physical antecedents, even if the big bang has to be taken as a discontinuity so radical that we cannot explain it, because we can find no laws which we can extrapolate backwards through this discontinuity."⁵¹ It seems, though, that here Mackie slips into some dogmatism, that is, an unwavering commitment to physicalist metaphysics, in spite of evidence to the contrary. In view of the radical discontinuity and the resultant lack of physical laws available for explanatory purposes, it would seem much more appropriate simply to allow for *some* causal antecedent, *whether physical or not*. Also, in view of the fact that the Big Bang is supposed to be the *beginning* of space, time, matter, and energy -- i.e., the beginning of the *physical* universe -- it would seem much more appropriate to allow for a *non-physical* causal antecedent. But to enter into this discussion at this juncture is to progress at a faster pace than that of the main text of this chapter, and so this discussion will end here (for now).⁵²

⁵⁰Mackie, *The Miracle of Theism*, 89.

⁵¹Mackie, *The Miracle of Theism*, 94-95.

⁵²Mackie has another objection by which he attempts to cut deeper. Following Kant, Mackie goes on to argue that the existence of a God whose existence is self-explanatory is unintelligible and that this unintelligibility, which is (allegedly) logically implied by the claim that the universe is caused, counts against the possibility of a caused universe (Mackie, *The Miracle of Theism*, 94). Thus, on Mackie's view, the alternative of an *uncaused* universe coming into existence is more plausible than the theistic alternative. This objection does not gain traction in this chapter for two reasons. First, as has been noted on previous occasions, an assumption (a reasonable assumption) of this dissertation is that the concept of God or a God-like being is intelligible. Second (and this reason applies within as well as beyond the boundaries of this chapter), it would very much seem that a universe that is self-explanatory (which is what Mackie would be left with, if his argument is conceded) would be equally unintelligible and so would count against the possibility of an uncaused universe. In other words, the objection that X's existence is self-explanatory and thus unintelligible

2. Objection from Smith (again)

Smith objects to Craig's argument (from empirical facts) for the claim that the beginning of the universe has a cause because, Smith alleges, the empirical facts of quantum science show us that the causal proposition (whatever begins to exist has a cause) is *not* constantly confirmed in our experience. Indeed, according to Smith, "There is observational evidence, albeit indirect, that [the] uncaused emergence of energy or particles (notably virtual particles) frequently occurs."⁵³ Smith, then, very apparently takes the evidence that matter/energy can be spawned from a fluctuation in a zero energy state in a quantum vacuum to be evidence for the claim that matter/energy can be created *uncaused*, and he takes this claim to count against the causal proposition.

Craig rightly points out, however, that "Smith's use of such vacuum fluctuations is highly misleading."⁵⁴ Why? For the simple reason that a quantum vacuum is *not* a state of nothingness. Much to the contrary, a quantum vacuum with *zero* energy consists of positively charged protons and negatively charged electrons whose charges add up to zero (just as $1 + [-1] = 0$). To be sure, the fluctuations of matter/energy behave oddly and are difficult to predict, but the fact remains that they do not occur in a causeless state of nothingness -- and a causeless state of nothingness is needed to show that the particles came into existence causelessly. In other words, Smith is supposed to be showing that the alleged popping into existence of particles in the quantum vacuum is an instance of something coming out of nothing; but Smith's quantum vacua are not physically empty, and so they are not nothing, and so Smith does not have an instance of something coming out of nothing.

is a double-edged sword which cuts equally against both views, but destroys neither.

⁵³Quentin Smith, "The Uncaused Beginning of the Universe," in *Theism, Atheism and Big Bang Cosmology*, by William Lane Craig & Quentin Smith (Oxford & New York: Clarendon Press, 1993), 123.

⁵⁴William Lane Craig, "The Caused Beginning of the Universe," in *Theism, Atheism and Big Bang Cosmology*, by William Lane Craig & Quentin Smith (Oxford & New York: Clarendon Press, 1993), 143.

Indeed, Craig goes on to point out, even if we were to concede ontological indeterminacy⁵⁵ at the quantum level (as opposed to a mere epistemic indeterminacy arising from the limitations on our abilities to investigate the quantum realm), it does not follow logically that we have a counterexample to the causal proposition. A counterexample to the causal proposition requires a beginning of existence which has no cause whatsoever, i.e., it requires something coming into existence out of nothing and produced by nothing. Significantly, in the case of a quantum vacuum, out of which particles appear to emerge briefly, we very much seem not to have particles being produced by nothing and out of nothing. Rather, as Craig astutely observes:

In the case of quantum events, there are any number of physically necessary conditions that must obtain for such an event to occur, and yet these conditions are not jointly sufficient for the occurrence of the event. (They are jointly sufficient in the sense that they are all the conditions one needs for the event's occurrence, but they are not sufficient in the sense that they guarantee the occurrence of the event.) The appearance of a particle in a quantum vacuum may thus be said to be spontaneous, but cannot properly be said to be absolutely uncaused, since it has many physically necessary conditions.⁵⁶

Craig adds: "To be uncaused in the relevant sense of an absolute beginning, an existent must lack any non-logical necessary or sufficient conditions whatsoever."⁵⁷ Clearly, in the case of the quantum vacuum, Smith's particles appear not uncaused in the relevant sense. Thus, as Craig correctly points out, "vacuum fluctuations do not constitute an exception to the principle that whatever begins to exist has a cause."⁵⁸

⁵⁵Ontological indeterminacy means that each effect does not in fact have a sufficient cause.

⁵⁶Craig, "The Caused Beginning of the Universe," 146. According to Jim Baggott, "We must be a little careful in our discussion of causality. An excited electron *will* fall to a more stable state; it is *caused* to do so by the quantum mechanics of the electromagnetic field. However, the exact moment of the transition appears to be left to chance. In quantum theory, the direct link between cause and effect appears to be severed." (Jim Baggott, *The Meaning of Quantum Theory*, Oxford Science Publications [Oxford: Oxford University Press, 1992], 15.) Surely, though, this does not mean that there is *no link whatsoever*. There remain necessary causal conditions that are eventually jointly sufficient.

⁵⁷Craig, "The Caused Beginning of the Universe," 146.

⁵⁸Craig, "The Caused Beginning of the Universe," 144. At this juncture, it should be noted that physicist and science-writer Paul Davies also seems to think that sub-atomic particles "pop into existence out of nowhere" (Paul Davies, "What Caused the Big Bang?" in *Modern Cosmology & Philosophy*, edited by John

Interestingly, even if ontic indeterminacy at the quantum level *were* to constitute a counterexample to the causal proposition (which seems very much *not* to be the case in view of the reasons given above), the apparently rationally persuasive force of possible objections to the causal proposition arising from the ontic indeterminacy interpretations of quantum science can be seriously weakened. Why? Because of two reasons, which, when taken together, provide a very strong defence against these possible objections. First, that an ontic indeterminacy interpretation of quantum theory should be rationally preferred is *far* from clear. As physicist Alastair Rae comments concerning the interpretation of quantum theory, "One thing that should be clear is that there is a wide scope for us all to have opinions...."⁵⁹ Indeed, physicist Nick Herbert refers to eight main contending interpretations of quantum theory (which include ontologically deterministic plus ontic indeterminacy interpretations) as "eight major guesses" that are "experimentally indistinguishable."⁶⁰ Also, science writer Jim Baggott's "important message" is that "quantum theory has more than one interpretation" and "we really have no means (at present) by which to reach a logical, rational preference for any one interpretation over the others" (in spite of the fact that the Copenhagen interpretation is presently popular with

Leslie [Amherst, New York: Prometheus Books, 1998], 244; see also Paul Davies, *The 5th Miracle* [New York: Touchstone, 1999], 61-62). Similarly, philosopher Graham Oppy attempts to challenge the causal proposition by appealing to the possibility of virtual particles beginning their existence "uncaused, i.e., without either material or efficient cause" (Graham Oppy, "Professor William Craig's Criticisms of Critiques of *Kalam* Cosmological Arguments by Paul Davies, Stephen Hawking, and Adolf Grünbaum," *Faith and Philosophy* 12:2 [April 1995]: 241). The above arguments, then, apply to Davies' and Oppy's positions, too.

⁵⁹Alastair Rae, *Quantum Physics: Illusion or Reality?* (Cambridge: Cambridge University Press, 1986; Canto edition, 1994), 111.

⁶⁰Nick Herbert, *Quantum Reality: Beyond the New Physics* (New York: Doubleday, 1985), 16, 28. Herbert's list consists of the following: (1) the Copenhagen interpretation, part I (there is no deep reality); (2) the Copenhagen interpretation, part II (reality is created by observation); (3) quantum wholeness (reality is an undivided, seamless whole); (4) the many-worlds interpretation (reality consists of a steadily increasing number of parallel universes); (5) quantum logic (the world obeys a non-human kind of reasoning); (6) neorealism (the world is made up of ordinary objects, of which some are faster than light); (7) the consciousness interpretation (not mere observation but *consciousness* creates reality); and (8) the duplex interpretation (the world is constituted by potentials and actualities). (See Herbert, *Quantum Reality*, 15-29, 240-246.) Of the above, at least the following are ontic determinist models: the many-worlds interpretation and neorealism.

most physicists).⁶¹ Moreover, as Craig correctly points out, "even if we accept the received Copenhagen interpretation, ontic indeterminacy follows only on a realist construal of that interpretation."⁶² "But," Craig quickly and correctly adds, "the orthodox Copenhagen interpretation is notoriously antirealist [i.e., instrumentalist] in orientation."⁶³ We can quite reasonably agree with Craig, then, that

Given the availability of deterministic interpretations of quantum theory that are no more implausible than the received Copenhagen interpretation and [given] the plausibility of a nonrealist construal of the Copenhagen interpretation itself, I see no reason to believe that ontic indeterminacy exists⁶⁴

Second, as Moreland correctly points out, in the absence of clear rational grounds for thinking that quantum mechanics should be understood along ontic indeterminacy lines, "it seems reasonable to hold to the well-established law of cause and effect."⁶⁵ Adds Moreland (rightly):

Surely the burden of proof is on those who deny that law, and if quantum theory can be understood in a way which preserves the law of cause and effect, then that interpretation of

⁶¹Baggott, *The Meaning of Quantum Theory*, 209-210. As I will argue, I think that -- although there may presently be no means by which we can reach a rational preference for any *one* interpretation over the others -- we can make a reasonable case for siding with *those interpretations that do not abandon the causal principle*. At this point I wish merely to point out that there is no consensus on the proper interpretation of quantum theory yet the major contending ontic indeterminacy and ontic determinacy interpretations are all mathematically consistent and completely compatible with the relevant data.

⁶²William Lane Craig, "Design & the Cosmological Argument," in *Mere Creation: Science, Faith & Intelligent Design*, edited by William A. Dembski (Downers Grove, Illinois: InterVarsity Press, 1998), 341.

⁶³Craig, "Design & the Cosmological Argument," 341. Respected physicist John S. Bell confirms Craig's judgment concerning the instrumentalist nature of the popular Copenhagen interpretation of quantum theory. According to Bell: "[Quantum theory] does not really explain things; in fact the founding fathers of quantum mechanics [e.g., Niels Bohr, Werner Heisenberg] rather prided themselves on giving up the idea of explanation. They were very proud that they dealt only with phenomena: they refused to look behind the phenomena, regarding that as the price one had to pay for coming to terms with nature." (John S. Bell, "John Bell," in *The Ghost in the Atom*, ed. P. C. W. Davies & J. R. Brown [Cambridge: Cambridge University Press, 1986; Canto edition, 1993], 51.)

⁶⁴Craig, "Design & the Cosmological Argument," 342.

⁶⁵Moreland, *Scaling*, 39.

quantum theory is preferable for that reason.⁶⁶

Now, since there appear to be no good grounds for believing that ontic indeterminacy exists; since the causal principle is otherwise well established; and since quantum theory *can* be understood in ways which preserve the causal principle: it is reasonable to understand quantum theory in an ontologically *determinist* way.

But more can be said: Smith's argument against the causal proposition has yet another problem. The task of showing that there is *no* cause for a quantum event seems very much to be a problematic task. R.

C. Sproul explains:

No one is disputing the "appearance" of quantum behavior. Undoubtedly Heisenberg encountered a devilish problem of atomic-particle predictability. I can imagine his saying: "This is incredible. The electron seems to be disappearing from one orbit and appearing in another simultaneously and without traversing the intervening space. How in the world can I explain this apparent behavior?"⁶⁷

But, adds Sproul:

It is one thing to say that electrons behave in a certain way for uncertain (or unknown) reasons. It is another thing to say that they behave in a certain way for no reason [or for no cause] To say that things happen for no reason or that effects take place without a cause is to speak with unmitigated and consummate arrogance . . . [Why?] [B]ecause it presupposes an attribute no mortal has, scientists or anyone else. It presupposes *omniscience* [T]o say that we know a given effect has no cause presupposes that we have full knowledge of every possible cause in the universe.⁶⁸

In other words, as Lawrence Sklar points out, the status of measurement in quantum science is "very

⁶⁶Moreland, *Scaling*, 39.

⁶⁷R. C. Sproul, *Not A Chance: The Myth of Chance in Modern Science & Cosmology* (Grand Rapids, Michigan: Baker Books, 1994), 47.

⁶⁸Sproul, *Not A Chance*, 49-50.

problematic,"⁶⁹ and so showing that there is no cause for a quantum event suffers terribly from the acute problem of our considerably-limited investigative abilities for the quantum realm.

There seems also to be another reason why some philosophers (such as Smith) mistakenly think that there is no causation at the quantum realm (nor for the Big Bang): namely, the uncritical acceptance of a positivist (verificationist) view of causation.⁷⁰ On the positivist view, the meaning of causation is equated with *predictability in principle*. But, says Craig,

this verificationist analysis is clearly untenable, as should be obvious from the coherence [meaningfulness] of the position that quantum indeterminacy is purely epistemic, there existing hidden variables which are in principle unobservable Clearly, then, to be "uncaused" does not mean, even minimally, to be "in principle unpredictable."⁷¹

Is there a reasonable *non-positivistic* account of causation? Yes. According to Richard Taylor,

The expression 'A was the cause of B' means: *A and B occurred; and A was that set of conditions, among the totality of those that actually occurred, but those only, which was such that each such condition was necessary for the occurrence of B; and the entire set was sufficient for the occurrence of B; and B followed upon A.* Such is the metaphysics of causation, or at least, the elements of it.⁷²

Thus, contrary to what Smith thinks, the empirical facts of quantum science do not show us that the causal proposition (whatever begins to exist has a cause) is not constantly confirmed in our experience, and so Smith's objection fails.

⁶⁹Lawrence Sklar, "Determinism," in *A Companion to Metaphysics*, edited by Jaegwon Kim & Ernest Sosa, Blackwell Companions to Philosophy (Oxford: Blackwell Publishers Ltd., 1995), 119.

⁷⁰See Smith, "The Uncaused Beginning of the Universe," 108-140.

⁷¹Craig, "The Caused Beginning of the Universe," 145. For an overview of logical positivism and its history, see Thomas Ricketts, "Logical Positivism," in *A Companion to Metaphysics*, edited by Jaegwon Kim & Ernest Sosa, Blackwell Companions to Philosophy (Oxford: Blackwell Publishers Ltd., 1995), 281-286.

⁷²Richard Taylor, *Metaphysics*, 4th edition, Foundations of Philosophy Series, series edited by Elizabeth Beardsley, Monroe Beardsley, & Tom L. Beauchamp (Englewood Cliffs, New Jersey: Prentice-Hall, 1992), 9; Taylor's italics. For further discussion see Taylor, *Metaphysics*, 88-98.

3. Objection from Grünbaum

Adolf Grünbaum charges that Craig's argument from empirical facts is guilty of the fallacy of equivocation. According to Grünbaum, Craig's argument fallaciously moves from premises which take the meaning of "cause" as *something which transforms previously existent materials from one state to another* to a conclusion which takes the meaning of "cause" as *something which transforms nothing into something*.⁷³ Craig, however, correctly points out the following: "The univocal concept of 'cause' employed in premiss and conclusion alike is the concept of efficient causality, that is to say, something which produces or brings into being its effects."⁷⁴ Craig adds: "Whether such production involves transformation of previously existing materials or creation *ex nihilo* is completely incidental."⁷⁵ In other words, the concern in the argument from empirical facts has to do with the extent to which we experience *efficient causal efficacy*. To be sure, our experience of efficient causation is often based upon our experience of the material aspects of causation. However, if our evidence points to an efficient cause being needed between two physical events, where one transforms the other, then we have all the more reason to think that a physical event cannot have no cause, especially if the event in question consists of something physical coming into being in the first place. If a merely physical transformation of some existent object *requires* an efficient cause for that physical transformation to occur, then *a fortiori* the ultimate transformation of the reality which is involved in the coming into being of a physical object *requires* an efficient cause for that ultimate transformation to occur. *If a minor change in physical reality requires an efficient cause, then, surely, a much more drastic change in reality requires an efficient cause too.* In other words, the material springboard for our experiences of

⁷³Adolf Grünbaum, "The Pseudo-Problem of Creation in Physical Cosmology," *Philosophy of Science* 56:3 (September 1989): 380-381.

⁷⁴William Lane Craig, "The Origin and Creation of the Universe: A Reply to Adolf Grünbaum," *British Journal of Philosophy of Science* 43 (1992): 234.

⁷⁵Craig, "The Origin and Creation of the Universe: A Reply to Adolf Grünbaum," 234-235.

efficient causal efficacy seems not to limit our leaps or inferences from those experiences solely to the material realm; *and*, when our unclouded intuitions concerning the causal principle (as defended in section III of this chapter) are allowed into the picture, the springboard seems to positively warrant our leaps or inferences to go beyond the material realm. Significantly, to deny these last two points requires the assumption that there is or can be no immaterial realm that could have physical causal efficacy; however, in this dissertation that assumption is at issue. In this dissertation we are not, in question-begging fashion, assuming either the existence or the non-existence of an immaterial realm, nor are we assuming the impossibility of such a realm. We are assuming merely that an immaterial realm is possible and that whether or not such a realm exists is an open question, to be settled by the evidence of the world and logical inferences therefrom. We can agree with Craig, then, that "the charge of equivocation is groundless."⁷⁶

Thus, Grünbaum's charge is problematic. The term "cause" in Craig's argument does not change from meaning *something which transforms previously existent materials* to meaning *something which transforms nothing into something physical*; the term "cause" in Craig's argument is used univocally as efficient cause, as *something which produces or brings into being its effects*. So Craig's argument provides good support for the causal principle.⁷⁷

At this juncture a couple of objections of a different sort might be set out.

First, it might be objected that Craig's willingness to consider *creatio ex nihilo* is a much more drastic idea than that of quantum theorists like Smith, and so should be rejected. There are some problems with this objection. First, it should be noted that Craig's appeal to creation *ex nihilo* is not creation without a cause; it is creation out of nothing physical by a non-physical cause. Second, it should be noted that quantum theorists

⁷⁶Craig, *Reasonable Faith*, 120.

⁷⁷In chapter 5 (section IV.C.3) I will look at the objection that the concept of an efficient intelligent cause, which is used in the realm of everyday discourse, cannot legitimately be applied to the supernatural or divine realm. Here (above), the notion of cause is used univocally; later we will see that, in a different setting, it can also be used analogically.

such as Smith appeal to creation not just of out of nothing physical but also by no cause whatsoever. Third, it seems reasonable to think that the latter case is the more drastic view and so should be rejected. Fourth, it seems reasonable to think that the rejection of the former case is due to a confusion of material cause with efficient cause; i.e., that a lack of material cause constitutes a lack of efficient cause, which is false.⁷⁸ Hence, this first objection fails.

Second, it might be objected that in talking of nonphysical causes we have no idea of the nature of the causes, as we do in the case of subatomic particles and basic physical forces, and so such talk is nonsense. This objection seems to fail. It seems that we can discern *that* a cause is (or was) at work without knowing a whole lot about the details of the cause's exact nature. We can talk meaningfully, it very much seems, of *that, whatever its nature is, which brings about an effect*. Hence, this second objection fails too.

4. Objection from Draper (again)

Draper also charges that Craig's argument from empirical facts is guilty of the fallacy of equivocation. (Note: I am not repeating myself with respect to Draper. In a previous section, section III-B-1, *I charged Draper* with the fallacy of equivocation; in the present section, *Draper charges Craig* with the fallacy of equivocation.) Draper objects that Craig's argument equivocates with the meaning of the phrase "begins to exist." According to Draper, the phrase "begins to exist" can mean to begin *within* time, or it can mean to begin *with* time. Draper thinks that Craig's appeal to empirical facts to defend the causal principle (whatever begins to exist has a cause) employs the former meaning whereas Craig's conclusion (that the universe's beginning to exist has a cause) employs the latter meaning. "But," argues Draper, "experience only supports the claim that anything that begins to exist *within* time has a cause of its existence. For we have no experience

⁷⁸This is false given the assumption that non-material causes are possible.

whatsoever of things beginning to exist *with* time."⁷⁹ And so, Draper holds, Craig's argument from empirical facts is a failure.

Draper, however, seems to be mistaken. The concept of "begins to exist" which is univocally employed throughout Craig's argument is the *bare concept* of "begins to exist." The relevant experience is merely of beginnings of existence. As Taylor points out, "it does not seem essential to the causal relation that effects should come *after* causes in time."⁸⁰ Why? Because sometimes causes occur contemporaneously (or coincidentally). Taylor gives the example of a locomotive pulling a car down a track, where the locomotive and car are closely connected, thereby making a tight cause-effect relation with no time lapse between the motion of one and the motion of the other.⁸¹ David Sanford gives the example of a moving belt turning a pulley with which it is in direct contact.⁸² Another example is a bicycle pedal that moves a tight bicycle chain which moves the rear wheel sprocket (or just consider the rear wheel sprocket moving the axle which moves the rear wheel). Also, as Craig points out,

some philosophers argue that all efficient causation is simultaneous, for if the causal conditions sufficient for some event E were present prior to the time t of E's occurrence, then E would happen prior to t; similarly if the causal conditions for E were to vanish at t after having existed at $t_n < t$, then E would not occur at t.⁸³

Now, clearly, not *all* efficient causation is simultaneous in the sense of all efficient causes occurring at once, because if it were, then everything would *happen* at once (of course, not everything is happening at once). But very apparently instances of efficient causation do occur simultaneously, when those instances occur. It

⁷⁹Draper, "A Critique of the Kalam Cosmological Argument," 46; second instance of italics is mine.

⁸⁰Taylor, *Metaphysics*, 97.

⁸¹Taylor, *Metaphysics*, 97.

⁸²David H. Sanford, "Causation," in *A Companion to Metaphysics*, edited by Jaegwon Kim & Ernest Sosa, Blackwell Companions to Philosophy (Oxford: Blackwell Publishers Ltd., 1995), 80.

⁸³Craig, "Creation and Big Bang Cosmology," 218.

seems, then, that it is a *widespread* property of beginnings *in* time to have a previous time when the fact to be explained is not yet and a later time at which it is. But, as the examples above show, such widespread properties are not *essential* properties of beginnings. Here is the point: if time is not essential to the causal relation, as it seems very much not to be, then whether the experienced beginnings of existence occur in time or with time is not a relevant issue. In other words, our experience of the causal relation, *however the causal relation is manifested in the world*, is what is relevant. Thus, Draper's charge of equivocation is groundless.

5. Objection from Le Poidevin and Narveson

Granting (for the sake of argument) that the universe began to exist with the beginning of time coinciding with the beginning of the universe, Le Poidevin objects that time itself provides a counterexample to the claim that whatever begins has a cause. Why? Because, according to Le Poidevin, "by definition, nothing can occur before time itself," and hence "Time cannot have a cause for its existence."⁸⁴ Narveson makes a similar objection. According to Narveson, "We cannot help ourselves to the language of causation in the absence of the applicability of temporal notions, and so the thesis that time 'began' at time *t*, *as the result of an action of a deity*, simply doesn't make sense."⁸⁵

In response to Le Poidevin and Narveson, the following can be said. Even if the beginning of time coincided with the beginning of the universe, the point remains that from the fact that nothing can occur temporally before X it does not follow logically that X cannot have a cause for its existence -- even where X = time. Again: Causation is not essentially a temporal concept. As was pointed out in the previous section,

⁸⁴Robin Le Poidevin, *Arguing for Atheism: An Introduction to the Philosophy of Religion* (London & New York: Routledge, 1996), 13.

⁸⁵Jan Narveson, "God by Design?", in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 90. Le Poidevin and Narveson's criticism is conceptual in nature. A Kantian version of the above criticism will be examined in section V of this chapter.

two events or states of affairs can occur contemporaneously or simultaneously and yet be causally related. To be sure, the concepts of "contemporaneous" and "simultaneous" are temporal concepts. The issue at hand, though, is whether a cause must be *temporally prior* to its effect. And the fact remains that a cause need not be temporally prior to its effect. For a cause can occur "before" its effect in the sense of being *ontologically prior* to it, as in the case of, say, the indentation caused by a ball resting from eternity on a pillow.⁸⁶ Thus, it seems to make sense to say that a cause of time can occur simultaneously with, at the same time as, its effect, which is time, yet be prior to time -- and the cause of time -- ontologically.

6. Possible Objection from Hume

At this juncture, Hume might object that Craig is committing the fallacy of composition when he (Craig) argues (1) whatever begins to exist *in* the universe has a cause, (2) therefore the beginning *of the whole universe* has a cause. (The fallacy of composition occurs when one reasons from the property of some parts of a whole to the property of the whole when doing so is not appropriate.) Hume asks rhetorically:

But can a conclusion, with any propriety, be transferred from parts to the whole? Does not the great disproportion bar all comparison and inference? From observing the growth of a hair, can we learn any thing concerning the generation of a man?⁸⁷

Although the context of Hume's remarks is a critique of an argument for God's existence based on design, and although Hume does not use the term "fallacy of composition," Hume's remarks can readily be construed as

⁸⁶This is Craig's example. As Craig acknowledges, the example comes from Kant but is modified somewhat by Craig: Kant has the ball resting on the pillow, but not for an eternity. (Craig, "Creation and Big Bang Cosmology," 218; cf. Immanuel Kant, *Critique of Pure Reason*, translated by Norman Kemp Smith under the title *Immanuel Kant's Critique of Pure Reason* [Basingstoke & London: Macmillan, 1929; reprint 1986], A203/B248, p. 228.) Augustine gives an example of an eternal footprint in the sand. Craig, then, may have taken Kant's cushion and ball, and revised it under the influence of Augustine.

⁸⁷David Hume, *Dialogues Concerning Natural Religion*, in *Writings on Religion*, edited by Antony Flew (La Salle, Illinois: Open Court, 1992), 208. Hume is here speaking via the character Philo, who more or less represents Hume's views.

forwarding the fallacy of composition charge, and this charge can be readily applied to Craig's argument.⁸⁸

The fallacy of composition objection fails, however, for three reasons. First, not all reasoning from a property had by parts to a property had by the whole is fallacious. As Michael Peterson (*et al.*) points out, "sometimes the totality has the same character as the parts on account of the parts -- [for example,] we built the wall out of bricks; therefore, it is a brick wall."⁸⁹ Another example: Each bar of gold in this box weighs more than 10 kilograms, therefore the whole box of gold weighs more than 10 kilograms. Another example: Each cubic centimetre of my gas tank is full of gasoline, therefore my gas tank is full of gasoline. And so on. In other words, we have many examples of wholes which have the same character as their parts. Second, the fact that something is unique does not preclude the possibility that it has properties in common with its parts. For example, as Moreland points out, "there may be only one object which satisfies the description 'the tallest man in Maryland,' but one could still compare this object with other objects and make judgments about the origination of the object."⁹⁰ In the case of the universe, from the fact that it is unique in the sense that it is the whole set of physical things and events, it does not follow logically that it is different in *every* respect from the subsets of things and events that make it up: for one thing, it shares the property of being a collection of

⁸⁸Whereas Hume sets out the fallacy of composition charge against *teleological* arguments, Kelly James Clark makes this charge against *cosmological* arguments (in particular, Richard Taylor's cosmological argument). (See Kelly James Clark, *Return to Reason* [Grand Rapids, Michigan: William B. Eerdmans Publishing Co., 1990], 22.) It seems reasonable to think, then, that Craig's argument should be deserving of the charge too.

Incidentally, Clark attacks the cosmological argument as a part of his attempt to defend "reformed epistemology." It seems that Clark's attack fails as well as is unnecessary for reformed epistemology. It seems that God's existence as a properly basic belief is wholly compatible with arguments for God's existence. Further discussion of this issue will be considered to be beyond the scope of this dissertation. For more on this matter, see Ronald Nash's discussion of Alvin Plantinga on God's existence as a properly basic belief in Ronald H. Nash, *Faith & Reason: Searching for a Rational Faith* (Grand Rapids, Michigan: Academic Books/Zondervan Publishing House, 1988), 85-91.

⁸⁹Michael Peterson, William Hasker, Bruce Reichenbach & David Basinger, *Reason & Religious Belief*, 3rd edition (New York & Oxford: Oxford University Press, 2003), 90. Of course, Peterson's example holds only as long as the mortar is not applied too thickly.

⁹⁰Moreland, *Scaling*, 63.

things and events. Third, our experience of the subsets or parts of the universe strongly suggests that the universe shares the causal characteristic with its parts. That is to say, because the sensible world of experience constantly gives us grounds to appeal to causal conditions *outside* of the particular physical phenomenon which begins its existence, and because the sensible world of experience constantly gives us grounds to appeal to causal conditions *outside* of *sets* of particular physical phenomena which begin their existence, it seems very reasonable also to appeal to causal conditions *outside* the *universal set* of physical phenomena which has a beginning. To think otherwise would be to swim against the direction in which the current of the facts of experience points us. To put the argument in Humean terms: Experience gives us a constant conjoining between individual events and causes outside of those events, and experience gives us a constant conjoining between sets of events and a cause or causes outside of those sets of events. This experience is the basis of custom, and custom "is the great guide of human life."⁹¹ Thus, even on Humean grounds, it is reasonable to infer a cause or set of causes for the universal set of events. Therefore, the fallacy of composition objection fails.⁹²

⁹¹David Hume, *An Enquiry Concerning Human Understanding*, in *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, 3rd edition, edited by L. A. Selby-Bigge, revised by P. H. Nidditch (Oxford: Clarendon Press, 1975), 44.

⁹²Note: Putting the argument in Humean terms is not to be understood as an endorsement of a Humean understanding of causality (which amounts to our experience of a constant conjoining of events of type A followed by events of type B producing in us a psychological propensity to pass from an occurrence or idea of a particular event of type A to the idea of the occurrence of a particular event of type B, a propensity that constitutes our idea of causal necessity). C. J. Ducasse has set out an important criticism of such an understanding of Hume's view of causation. According to Ducasse, "there are cases which conform to Hume's definition [of causality] but where we judge the events concerned not to be related as cause and effect" (C. J. Ducasse, "Causality: Critique of Hume's Analysis," in *Reality in Focus: Contemporary Readings on Metaphysics*, edited by Paul K. Moser [Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1990], 147; reprinted from Ducasse, *Nature, Mind and Death* [La Salle: Open Court, 1951], 91-100). Ducasse gives the example of two independently running clocks which strike the hour every hour, but one always strikes immediately before the other. Hume's view would have us think – mistakenly – that the first clock's striking the hour caused the second clock's striking the hour. Ducasse also gives the example of our experience of infants regularly having hair growth followed by the growth of teeth (Ducasse, "Causality," 157-158). We could add to the list of counterexamples *any* correlation that is obviously not a cause and effect relation: e.g., leaves turning yellow and bears beginning to hibernate, brushing teeth and going to bed, etc. For further criticism of this Humean understanding of causality, see Taylor, *Metaphysics*, 91-94. (Also, see John P.

But perhaps we have moved too fast. One might object that the third reason above does not "strongly suggest" that the whole has some *different* explanation from that of each of the parts, but *that* is what has to be claimed for the argument to work. To this objection, it should be pointed out that the relevant experience is simply *that* the sensible world of experience constantly gives us grounds to appeal to causal conditions outside of the particular physical phenomenon, to causal conditions outside the sets of those phenomena, to causal conditions outside the sets of sets, to causal conditions outside the universal set itself, *regardless of the nature of the causal powers, regardless of whether the cause of the whole is of a different stuff than the cause of the parts*. Our experience strongly suggests some cause or other, *regardless of its constitution*. To think otherwise may be a result of mistakenly taking material causes for efficient causes.⁹³

Wright, *The Sceptical Realism of David Hume*, Studies in Intellectual History [Minneapolis: University of Minnesota Press, 1983]. Wright argues that Hume's view of causality as constant conjunctions can be understood as a *sign* of real causation, which we merely believe or assume exists. Wright may be correct in this. Nevertheless, Hume's epistemological-constant-conjunction view of causation is seriously problematic, as has been shown.)

⁹³Keep in mind, too, my argument from section V-B-3, which may be helpful to repeat here. The concern in the argument from empirical facts -- including the above argument from part and wholes -- has to do with the extent to which we experience *efficient causal efficacy*. To be sure, our experience of efficient causation is often based upon our experience of the material aspects of causation. However, if our evidence points to an efficient cause being needed between two physical events, where one transforms the other, then we have all the more reason to think that a physical event cannot have no cause, especially if the event in question consists of something physical coming into being in the first place. If a merely physical transformation of some existent object *requires* an efficient cause for that physical transformation to occur, then *a fortiori* the ultimate transformation of the reality which is involved in the coming into being of a physical object *requires* an efficient cause for that ultimate transformation to occur. *If a minor change in physical reality requires an efficient cause, then, surely, a much more drastic change in reality requires an efficient cause too*. In other words, the material springboard for our experiences of efficient causal efficacy seems not to limit our leaps or inferences from those experiences solely to the material realm; *and*, when our unclouded intuitions concerning the causal principle (as defended in section III of this chapter) are allowed into the picture, the springboard seems to positively warrant our leaps or inferences to go beyond the material realm. Significantly, to deny these last two points requires the assumption that there is or can be no immaterial realm that could have physical causal efficacy; however, in this dissertation that assumption is at issue. In this dissertation we are not, in question-begging fashion, assuming either the existence or the non-existence of an immaterial realm, nor are we assuming the impossibility of such a realm. We are assuming merely that an immaterial realm is possible and that whether or not such a realm exists is an open question, to be settled by the evidence of the world and logical inferences therefrom.

C. Sub-Conclusion

Thus, with some help against various objections, Craig's argument from empirical facts is strong enough to make it reasonable to think that the universe's beginning was caused.⁹⁴

VI. An Objection from the Kantian *a priori* Principle of Causality

A. Exposition

An objector might at this point concede (perhaps a bit impatiently, since I have been dodging this objection for so long) that thus far the objections raised against Craig's appeal to intuition and Craig's argument from empirical facts do not work; but the objector might still ask: Is there not a more fundamental Kantian objection that can be made here? According to Kant's Transcendental Idealism, the categories of our understanding filter our experiences and impose a structure onto them. As a result, says Kant, the ("transcendental") principle of causality "is applicable only in the sensible world [the realm of phenomena,

⁹⁴It should be noted that physicist Victor Stenger holds that an uncaused origin of the universe is plausible on the standard (inflationary) big bang model of contemporary cosmology for two reasons. Stenger claims (1) that the uncaused origin of the universe is "consistent with all current knowledge and cannot be ruled out", and (2) that "by means of a random quantum fluctuation the universe tunneled from pure vacuum ('nothing') to what is called a *false vacuum*," i.e., that "[a]t some point, according to this scenario, the symmetries of the initial nothingness were spontaneously broken" (Victor J. Stenger, "Natural Explanations for the Anthropic Coincidences," *Philo* 3:2 [Fall-Winter 2000], 60-61). In reply, three points should be made. First, the previous argumentation of this chapter shows that our current knowledge is such that the causal proposition (that whatever begins to exist has a cause) has strong support and so Stenger's first claim is highly implausible. Second, the previous argumentation of this chapter also shows that Stenger's second claim is sheer nonsense, for if prior to the universe's beginning there is truly nothing (which is what Stenger seems to take a "pure vacuum" to be), i.e., if there are no potential universes, no matter/energy and no space and time, no deity or anything -- i.e., if there really is *nothing* -- then there is no universe to do any tunneling and there are no symmetries to be broken. Third, if Stenger takes the "pure vacuum" to be some sort of eternal "superspace" as in Edward Tryon's vacuum fluctuation model, or a type of "foam," as in Andrei Linde's chaotic inflationary model, then Stenger's view falls prey to the criticisms of Tryon's and Linde's models which are set out in chapter 4 of this dissertation (section IV.B.3.c.i).

the realm of our filtered experience]; outside [i.e., in the realm of the noumena, in the realm of actual reality] it has no meaning whatsoever."⁹⁵ Is it not the case, then, that our categories/ conceptual schemes (for everyday and scientific observation) so mold the categorization process that our conceptual assignments and distributions have more to do with *the conceptual scheme* than with the world? Is it not the case, in other words, that at this fundamental, "at-the-starting-blocks" conceptual level, we are merely *projecting* the principle of causality -- whatever begins to exist has a cause for its beginning -- onto the world?⁹⁶

B. Response

The answer to the above question seems very much to be No: We seem very much not to be projecting the causal principle onto the world at the fundamental, "at-the-starting-blocks" conceptual level.

⁹⁵Kant, *Critique of Pure Reason*, A609/B637, p. 511.

⁹⁶This Kantian view of the human understanding (albeit a less invariable version) can be attributed to a reading of Thomas Kuhn's *The Structure of Scientific Revolutions*, Foundations of the Unity of Science (Chicago: The University of Chicago Press, 1962, 1970), especially when Kuhn's notion of paradigm is taken to mean *conceptual scheme* rather than *scientific theory*. To be sure, Kuhn uses the concept of paradigm in a notoriously ambiguous fashion (see Dudley Shapere, "The Structure of Scientific Revolutions," in Gary Gutting, editor, *Paradigms and Revolutions: Appraisals and Applications of Thomas Kuhn's Philosophy of Science* [Notre Dame: University of Notre Dame Press, 1980], 27-38; see also Margaret Masterman, "The Nature of a Paradigm," in I. Lakatos & A. Musgrave, editors, *Criticism and the Growth of Knowledge* [Cambridge: Cambridge University Press, 1970], 59-89). Nevertheless, it does seem that Kuhn gives plenty of textual fuel for a Kantian kind of understanding of paradigm. According to Kuhn, paradigms not only influence our view of nature, but there is "a sense in which they are constitutive of nature as well" (Kuhn, *The Structure of Scientific Revolutions*, 110). Indeed, says Kuhn, "when paradigms change, the world itself changes with them," and "we may want to say that after a revolution [i.e., a paradigm change] scientists are responding to a different world" (Kuhn, *The Structure of Scientific Revolutions*, 111). Also, says Kuhn -- adding a variable, person-relative aspect to the notion of paradigm -- "Practicing in different worlds . . . scientists see different things when they look from the same point in the same direction" (Kuhn, *The Structure of Scientific Revolutions*, 150). Whereas Kant's categories of the understanding seem to be fixed by our constitution as humans, Kuhn's paradigms are unfixed.

But the Kantian influence does not stop with Kuhn. Apparently following Kuhn's relativistic inclination, Jung Min Choi and John W. Murphy point out that "reality is . . . a human invention or, more accurately, a linguistic habit" and "facts are interpretive rather than value-free and objective" (Jung Min Choi & John W. Murphy, *The Politics and Philosophy of Political Correctness* [Westport, Connecticut: Praeger, 1992], 4 & 31).

Craig anticipates the Kantian objection by arguing as follows:⁹⁷

Kant's position [that the categories of the understanding have no application beyond the realm of sense data] is self-refuting: for if the categories are restricted in operation to the realm of sense data alone, then no knowledge of the categories themselves would be possible, since they are characterised by the very absence of sense data. Yet we do possess speculative knowledge of the categories⁹⁸

[Also], to assert, 'No knowledge of the noumena is possible' is self-refuting, since it itself purports to be an item of knowledge about the noumena.⁹⁹

[T]herefore, [the categories of the understanding] cannot be restricted to the realm of sense experience.¹⁰⁰

Craig's argument seems very much to succeed in showing us that knowledge of the so-called noumena (the real world) is possible. But we can go further, if we take into account an important insight from Thomas Nagel.¹⁰¹ According to Nagel, "second-order theories cannot avoid competition with the content of what they are trying to reduce or debunk."¹⁰² In other words, Kant's second-order theory cannot avoid competition with the first-order fact that our concepts seem very much to get us to the external mind-independent world. Consider, then, the following argument, which will serve to reinforce Craig's argument against the Kantian objection. Let us refer to the claim that the world is misperceived by humans via their biased and distorting

⁹⁷Craig acknowledges that he is following Stuart Hackett in this response to the Kantian view. See Stuart C. Hackett, *The Resurrection of Theism: Prolegomena to Christian Apology* (Chicago: Moody Press, 1957; reprint, Grand Rapids, Michigan: Baker Book House, 1982), part 1.

⁹⁸Craig, *The Kalam Cosmological Argument*, 146.

⁹⁹Craig, *The Kalam Cosmological Argument*, 147.

¹⁰⁰Craig, *The Kalam Cosmological Argument*, 146. Also, the category of causation is applied to the noumena in a general way: the noumena is the *cause* of the phenomena. In addition, the category of existence is applied to the noumena in a general way: the noumena is assumed to *exist*.

¹⁰¹Thomas Nagel, *The Last Word* (New York & Oxford: Oxford University Press, 1997), 92-96.

¹⁰²Nagel, *The Last Word*, 96.

concepts of it as the Kantian thesis.¹⁰³ The Kantian thesis has to do with a particular aspect of the world: i.e., that humans *in fact* misperceive the world via their concepts. Significantly -- to gain traction -- the above objection must involve an admission that we can know, via our concepts, that the Kantian thesis is true. However, this means that the objection presupposes an alternative *non*-Kantian thesis, a thesis which holds that humans, via their concepts, actually *do know* the world in a *non*-biased, *non*-distorting way. Now, because this alternative thesis is not self-contradictory (and thus not knocked out of the explanatory competition right at the start); and because the Kantian thesis requires that the alternative thesis is true (albeit with respect to a limited domain); and because there seems to be no independent overriding reason to limit the domain of the alternative thesis in the way the Kantian thesis does: we can conclude that the doubt cast by the Kantian thesis onto observation is very seriously weakened. But this means that it is quite reasonable to accept *as accurate* the everyday evidence that our observations of the everyday and scientific sort very apparently and very often *are accurate*. (To say that it seems quite reasonable to accept the accuracy of our everyday or first-order observations is not to make an appeal to the logical positivists' uninterpreted and unmistakable "given." We can still admit that some measure of interpretation takes place and that our apparently accurate observations are fallible and corrigible.) In other words, as Hugo Meynell points out, it very much seems that with respect to the external world "we can have a concept of what lies beyond our concepts."¹⁰⁴ Moreover,

we can ... get outside the conceptual scheme ... to the extent that we can conceive of a limit towards which ultimately tends that critical correction of conceptual schemes which has gone on up to our time, which continues now, and presumably will not terminate at this day or hour.¹⁰⁵

¹⁰³This is not to say that Kant actually holds the view that humans in fact misperceive the world via their concepts. Rather, what is here called the Kantian thesis simply refers to the view of an objector who uses Kant's mental filters to defend a skeptical position concerning the accuracy of our perceptions.

¹⁰⁴Hugo Meynell, "Truth, Witchcraft and Professor Winch," *The Heythrop Journal* 13 (April 1972): 167.

¹⁰⁵Meynell, "Truth, Witchcraft and Professor Winch," 168.

This limit, it seems very reasonable to think, is the objective mind-independent world of everyday and scientific observation, which "our subjective worlds [i.e., our conceptual schemes] approximate so far as they are subjected to rigorous criticism,"¹⁰⁶ and which includes an accurate appreciation of the causal principle.

Another way of arguing to the thesis that we have an accurate appreciation of the causal principle comes from Francis Beckwith. According to Beckwith,

We are told [by Kantian critics, Kuhnians, and perceptual relativists] that 'facts are interpretive rather than value-free and objective,' except of course this one, which would mean that not all facts are interpretive rather than value-free and objective. However, if [Kantian critics and company] want to maintain that this 'fact' too is merely interpretive, then we have as good a reason as any to return to a belief that some form of objectivity is possible, since the claim that 'facts are interpretive rather than value-free and objective' would itself be incapable of being value-free, objective and a true description of reality. Why should we believe some claim as true if the claim itself claims nothing is true [or claims that all our knowledge is distorted]?¹⁰⁷

Then, following Nagel, we could add that weighing against this implausible second-order attempt to explain away the first-order evidence of the accuracy of observations is the first-order evidence of the accuracy of observations.

Significantly, the argument against the Kantian thesis can be supported even further. As Peterson (*et al.*) astutely observes,

the success with which we have applied [the principle of causality] refutes the thesis that reality does not operate according to the causal principle. If we consistently used this principle but it did not apply to reality, we should have bumped up against numerous

¹⁰⁶Meynell, "Truth, Witchcraft and Professor Winch," 169.

¹⁰⁷Francis J. Beckwith, "A Critique of Political Correctness," in *Philosophy: The Quest for Truth*, 3rd edition, edited by Louis P. Pojman (Belmont, California: Wadsworth Publishing Company, 1996), 585. The aforementioned essay by Beckwith is a revised version of an essay that originally was published by Beckwith as "The Epistemology of Political Correctness," in *Public Affairs Quarterly* 8:4 (October 1994): 331-340. The Beckwith passage cited above was added to page 335 of *Public Affairs Quarterly* and appears for the first time in the Pojman anthology.

contradictions by now.¹⁰⁸

Also, as Jim Leffel points out,

The success of scientific technology is a strong argument that our perceptions of the world are relatively accurate. Countless achievements attest to the reliability of human knowledge [including our knowledge of the causal principle]. We can engineer enormously sophisticated rockets to propel men to the moon, and provide health care that has more than doubled human life expectancy. We couldn't do these things without an essentially reliable correspondence between our ideas of reality and reality itself.¹⁰⁹

Hence, we also have very strong pragmatic grounds for thinking that our application of the causal principle is not just due to our imposing the mind's categories of understanding onto the world.

In view of the above arguments, the sting seems very much to be taken out of the Kantian objection. Because knowledge of the so-called noumena is possible, and because our knowledge of the causal principle is not merely due to the human mind's imposing its categories of understanding onto the world, we are justified in thinking that our intuition of the causal principle gives us knowledge of the actual world.¹¹⁰

VII. Inferences about the Cause of the Universe's Beginning

Now, given that it is reasonable to think on the basis of the contemporary scientific evidence for the Big Bang that the universe's existence had a beginning, and given that it is reasonable to think on the basis of the previous argumentation in this chapter that the universe's beginning was caused, what can we reasonably believe about the cause of the universe's beginning? First, we can reasonably believe that the cause of the

¹⁰⁸Peterson *et al.*, *Reason & Religious Belief*, 89.

¹⁰⁹Jim Leffel, "Postmodernism and 'The Myth of Progress': Two Visions," in *The Death of Truth: What's Wrong with Multiculturalism, the Rejection of Reason, and the New Postmodern Diversity*, edited by Dennis McCallum (Minneapolis, Minnesota: Bethany House Publishers, 1996), 52.

¹¹⁰The actual world is an independently existing reality to which our public utterances refer.

universe's beginning is very powerful. Producing a universe takes an enormous amount of power, to say the least. Second, we can reasonably believe that the cause of the universe's beginning transcends the physical realm. According to Big Bang theory, all of the physical universe -- space, time, matter, and energy -- comes into being at the moment of the Big Bang's beginning, so the cause of the universe is somehow beyond space, time, matter, and energy. Third, we can reasonably believe that the cause of the universe's beginning is either singular or plural. Craig defends the view that the universe's cause is singular as follows:

The inference to a single cause of the origin of the universe seems justified in light of the principle commonly accepted in science, that one should not multiply causes beyond necessity [a.k.a. Ockham's Razor]. One is justified in inferring only causes such as are necessary to explain the effect in question; positing any more would be gratuitous.¹¹¹

Hume, on the other hand, defends the view that the universe's cause is plural as follows:

To multiply causes, without necessity, is indeed contrary to true philosophy: but this principle applies not to the present case. . . . [W]hile it is still a question, Whether all these attributes [required to produce the universe] are united in one subject, or dispersed among several independent beings: by what phenomena in nature can we pretend to decide the controversy? Where we see a body raised in a scale, we are sure that there is in the opposite scale, however concealed from sight, some counterpoising weight equal to it: but it is still allowed to doubt, whether that weight be an aggregate of several distinct bodies, or one uniform united mass. And if the weight requisite very much exceeds any thing which we have ever seen conjoined in any single body, the former supposition becomes still more probable and natural. An intelligent being of such vast power and capacity, as is necessary to produce the universe . . . exceeds all analogy, and even comprehension.¹¹²

In the view of this dissertation's author, it seems that both Craig and Hume put forth strong reasons for their positions. To be sure, neither argument is without problem. For example, Hume's claim that a single intelligent creator is beyond analogy and comprehension is faulty. An analogy, admittedly a rough one, to a single creator of a universe would be an individual human being (say, my son Tom) putting together a habitat

¹¹¹Craig, *Reasonable Faith*, 120.

¹¹²Hume, *Dialogues Concerning Natural Religion*, 229-230. (Philo is speaking.)

(e.g., aquarium, water, rocks, etc.) for his pet turtle. Also, Craig's claim that we are justified in inferring that only causes such as are necessary to explain the effect in question and that positing any more would be gratuitous may fall prey to Hume's argument (it turns out that my son needed my wife's and my help). Thus, it is reasonable to believe that the universe's beginning was caused by a being or beings which/who is or are very powerful and transcendent.¹¹³ Hence, there exists a very powerful, transcendent causal source of matter/energy.¹¹⁴

VIII. Conclusion

The project in the present chapter has been to defend one of the theses implied/predicted by the miracle concept discerned in chapter 1: namely, the thesis that there exists a very powerful, transcendent causal source of matter/energy. First, the concept of cause was clarified. Second, it was claimed that contemporary science gives us the clue that something physical has come out of the realm of the non-physical: that is to say, it was claimed that the contemporary scientific evidence for the Big Bang makes it reasonable to believe that the physical universe -- space, time, matter, and energy -- began to exist. This claim was defended by an appeal to authority. Third, by examining and building upon some arguments by William Lane Craig, it was argued at length that the Big Bang seems very much to give reasonable grounds for thinking that there is in fact a cause of the universe which/who is very powerful and physically transcendent. We looked at Craig's appeal to the intuitively obvious and his argument from empirical facts for his defence of the causal principle that whatever begins to exist has a cause for its beginning. In addition, we looked at various objections, as well as the concern that the aforementioned arguments and this chapter's defence against the various objections made an illegitimate appeal to a Kantian *a priori* principle of causality (which says more about the distorting

¹¹³A Christian theist, it seems, might not object to this conclusion. It seems not wholly unreasonable to understand Genesis as describing God doing His creative work with the help of angels.

¹¹⁴If there exists one or more, then there exists at least one.

effects of our minds than about the actual world). In so doing, it was shown that it *is* reasonable to believe that the universe has a (real) cause for its beginning. Also, some reasons for thinking that this cause is very powerful and physically transcendent were set out. In view of the above, it very much seems that the aim of this chapter has been achieved: it is reasonable to believe that there exists a very powerful, transcendent causal source of matter/energy.

In the next chapter (chapter 4), we will determine whether it is reasonable to believe that the very powerful, transcendent causal source of matter/energy discerned in chapter 3 is also intelligent -- which is yet another thesis implied/predicted by the concept of miracle discussed in chapter 1.¹¹⁵

¹¹⁵It should be noted here that Craig argues that the cause of the universe's beginning is a *personal cause* by building upon a purely philosophical argument which purports to show that an actually infinite collection of events is impossible. Here is a sketch of the argument. Because an infinite collection of events is impossible, there must be a very first event before which there was no previous event. But the very first event must have had a cause, because whatever begins to exist has a cause. This cause, though, must be changeless and eternal, because it is the cause of the first event. At this stage of the argument, we face an apparent conundrum. As Craig points out, "The question is: How can a first event come to exist if the cause of that event exists changelessly and eternally? Why isn't the effect as co-eternal as the cause?" (Craig, *Reasonable Faith*, 117.) Craig concludes that the existence of a personal agent is required.

Although the notion of a changeless eternal personal agent has problems (though seemingly not insurmountable problems; see reference at the end of this footnote), for Craig's argument to arrive at this agent requires the success of the philosophical argument which purports to show the impossibility of an actually infinite collection of events. I will not examine this argument in this dissertation, however, because it is purely philosophical, and I am seeking to build a plausibility structure for miracles on the basis of the clues which come from contemporary science plus moral philosophy. (I will say, though, that I think the purely philosophical argument has some serious though not insurmountable problems; again, see references at the end of this footnote.) To make *my* case for the personhood of the very powerful and transcendent cause of the universe, I will (in the next chapter) appeal to the scientific evidence for intelligent design.

Concerning the logical coherence of the notion of a changelessly and eternally existing personal agent, see: William Lane Craig, "Divine timelessness and personhood," *International Journal for Philosophy of Religion* 43 (1998): 109-124; and Davis, "God's Actions," 163-177.

Concerning Craig's philosophical argument which purports to show the impossibility of an actually infinite collection of events, see: Craig, *The Kalam Cosmological Argument*, 64-110; Craig, *Reasonable Faith*, 94-100; William Lane Craig, "A swift and simple refutation of the *Kalam* cosmological argument?", *Religious Studies* 35 (1999): 57-72; William Lane Craig, "The *Kalam* Cosmological Argument," in *Philosophy of Religion*, edited by William Lane Craig (Edinburgh: Edinburgh University Press, 2002), 92-113; John Taylor, "Kalam: A Swift Argument from Origins to First Cause?", *Religious Studies* 33 (1997): 167-179; William J. Wainwright, "Review of William Lane Craig's *The Kalam Cosmological Argument*," *Nous* 16 (1982): 328-334.

Chapter 4

INTIMATIONS OF DESIGN

**Some findings from contemporary science
as clues for thinking that there is
a very powerful, transcendent, *intelligent* cause**

I. Introductory Remarks

The thesis of this dissertation is the following: On the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications -- when examined in the context of some implied/ predicted findings from contemporary science plus some implied/ predicted discernments from moral philosophy -- serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity or power to make sense of some facts which suggest such an operation. In chapter 1, the following understanding of miracle (sense 6) was set out: An event is a miracle if and only if: (1) it is extraordinary with respect to nature's regular course in the sense that the event's occurrence is beyond nature's capacity to produce; (2) it consists of an introduction or coming into being of complex specifically structured matter/energy; (3) it is produced by a very powerful, nature-transcending and intelligent causal source of matter/energy, i.e., God or a God-like being; and (4) it is religiously significant. The first three conditions led to the following two questions: Does contemporary science provide clues for thinking that a physical creation can come into being, caused, out of the non-physical realm? Does contemporary science

provide clues for thinking that there exists a very powerful, physically transcendent, and intelligent being who can create highly complex specifically-structured physical items which, because of their highly complex and specific structure, display signs of intelligence? The fourth condition led to this question: Does moral philosophy provide clues for thinking that intelligent human beings have objective moral value? In chapter 2, the thesis that intelligent human beings do in fact have objective moral value was defended. In chapter 3, the thesis that something physical has come out of the realm of the non-physical was examined. The scientific evidence for the Big Bang was accepted as a clue that the physical universe began to exist, and it was argued that this clue gives reasonable grounds for thinking that there is a very powerful and transcendent cause of the universe. The aim of the present chapter -- chapter 4 -- is to look at some evidence that gives us good grounds for reasonably believing that the universe has a very powerful, transcendent, and *intelligent* cause. In chapter 5, it will be argued that the findings of the previous chapters plus that of the present chapter (findings which make it reasonable to think that the universe has come into being in a highly complex and specifically structured way, displaying marks of intelligence, and very apparently caused by a very powerful and intelligent matter/energy source which exists beyond the universe) seem very much to be an instance of the concept of miracle "writ large". It will also be argued in chapter 5 that this very apparent large-scale miracle enhances the plausibility of the occurrence of a small-scale miracle, given some specific historical testimony/evidence which smacks of the miraculous.

But first things first. In the present chapter the thesis that there exists a very powerful, transcendent and *intelligent* causal source of matter/energy will be defended. The defence will consist of a cumulative case argument which appeals to the following: the thesis of chapter 2 (that it is reasonable to believe that intelligent human life has objective moral value); the thesis of chapter 3 (that it is reasonable to believe that there is a very powerful and transcendent cause of the universe); plus the following three clues discovered by contemporary science: (1) the apparent "fine-tuning" at the beginning of the universe for the conditions needed for intelligent human life; (2) the complex biochemical molecular machines that constitute the living cell; and

(3) the language/code in deoxyribonucleic acid (DNA). First, it will be argued that clue 1, when supplemented with the thesis of chapter 2, constitutes evidence for a sign of intelligence. Second, it will be argued that clues 2 and 3, when coupled with the thesis of chapter 2, also constitute evidence for signs of intelligence. Third, it will be argued that when clues 1 and 2 and 3 are taken together with chapter 2's thesis and chapter 3's thesis, we have a cumulative case argument which makes it *reasonable to believe* that a very powerful, transcendent, and intelligent causal source of matter/energy exists.

Before setting out the above arguments, this chapter will first clarify the concept of intelligent design, which if instantiated in the physical world will provide us with a sign (or signs) of intelligence. Also, the legitimacy of appealing to an intelligent cause as an explanation will be defended.

II. Clarifying the Concept of Intelligent Design

This dissertation will use Del Ratzsch's recently-formulated and reasonably-uncontentious definition of intelligent design.¹ According to Ratzsch, "a *design* is a deliberately intended or produced pattern."² Of course, the question immediately arises: What is a deliberately intended or produced pattern? According to Ratzsch, "a *pattern* is an abstract structure which correlates in special ways to mind, or is *mind correlative*."³ This is not to say, as Ratzsch adds, that all patterns are in fact designed or exemplify actual design; there can be cases of merely *apparent* design.⁴ But it is to say that if a pattern exhibits what Ratzsch calls *deep mind*

¹Del Ratzsch, *Nature, Design, and Science: The Status of Design in Natural Science*, SUNY Series in Philosophy and Biology, series edited by David Edward Shaner (New York: State University of New York Press, 2001).

²Ratzsch, *Nature, Design, and Science*, 3.

³Ratzsch, *Nature, Design, and Science*, 3.

⁴Ratzsch, *Nature, Design, and Science*, 4. According to Richard Dawkins (an atheist), "Biology is the study of complicated things that give the appearance of having been designed for a purpose" (Richard

affinity then we may have evidence of intentional intelligent activity, or intelligent design.⁵ Whether the clues mentioned in the introduction of this chapter provide evidence of patterns exhibiting deep mind affinity will be determined in subsequent sections of this chapter.

At this juncture, it should be pointed out that in following Ratzsch's conception of intelligent design this dissertation is largely rejecting intelligent-design theorist William Dembski's recent work on this subject.⁶ On one reading of Dembski, intelligent design is understood as "the set-theoretic complement of the disjunction regularity-or-chance."⁷ That is to say, according to Dembski, "To attribute an event to [intelligent] design is to say that it cannot be reasonably referred to either regularity [i.e., law of nature, physical necessity] or chance [i.e., physical spontaneity]."⁸ Indeed, says Dembski, the notion of intelligent design is "eliminative,

Dawkins, *The Blind Watchmaker* [Harlow: Longman Scientific and Technical, 1986], 1). Dawkins holds that because these complicated things can be explained by unguided, non-intelligent, neo-Darwinian evolution (as the rest of his book purports to show), they are not in fact designed for a purpose: their design is *merely* apparent. See also Richard Dawkins, *Climbing Mount Improbable* (New York: W. W. Norton & Company, Inc., 1996).

⁵Ratzsch, *Nature, Design, and Science*, 70. It should be noted that the words "intelligent design" are not a pleonasm. The word "intelligent" is used to distinguish intelligent design from *apparent* design (as well as from *optimal* design, as will be noted later). Also, it should be noted here that in contrast to *deep* mind affinity there can be a *surface* mind affinity, which corresponds to various degrees ranging between intelligent design and (merely) apparent design or no design. As will be seen, included under the notion of deep mind affinity is Ratzsch's view that "complexity, improbability, precise instrumentality, or tight production constraints when operating in the service of producing value can constitute evidence for design" (Ratzsch, *Nature, Design, and Science*, 70).

⁶See: William A. Dembski, *The Design Inference: Eliminating Chance Through Small Probabilities*, Cambridge Studies in Probability, Induction, and Decision Theory (Cambridge & New York: Cambridge University Press, 1998); William A. Dembski, *Intelligent Design: The Bridge between Science and Theology* (Downers Grove, Illinois: InterVarsity Press, 1999); William A. Dembski, "The Third Mode of Explanation: Detecting Evidence of Intelligent Design in the Sciences," in Michael J. Behe, William A. Dembski & Stephen C. Meyer, *Science and Evidence for Design in the Universe*, The Proceedings of the Wethersfield Institute, Volume 9 (San Francisco: Ignatius Press, 2000), 17-51; William A. Dembski, *No Free Lunch: Why Specified Complexity Cannot Be Purchased without Intelligence* (Lanham, Maryland: Rowman & Littlefield Publishers, Inc., 2002).

⁷Dembski, *The Design Inference*, 36.

⁸Dembski, *The Design Inference*, 36. Dembski understands the notion of regularity as "what we frequently call natural laws," whether deterministic or not (Dembski, *The Design Inference*, 38). Dembski understands the notion of chance as "blind purposeless contingency" (Dembski, *Intelligent Design*, 165) and he

asserting of an event what it is not, not what it is."⁹ For Dembski, it seems, the concept of intelligent design can be understood purely in negative terms: we have intelligent design when we rule out law and chance. It should be noted, however, that because on this reading of Dembski no positive content is given to the notion of intelligent design, it is reasonable to think that if one has shown that appeals to law and/or chance cannot be reasonably made, then the appropriate conclusion is not intelligent design, but *agnosticism*.

The above reading of Dembski, however, is not the only way to understand Dembski's work (even though it is to be found in his work). Dembski goes on to argue that a discernment of a "specified complexity" is also needed to infer intelligent design.¹⁰ That is, according to Dembski, we infer intelligent design *not only* when (1) the object or event under examination is an actualization of a contingency, i.e., what does not have to be (hence is not due to law or physical necessity) and (2) the object or event displays an extremely low probability of occurring by chance (hence is not due to chance), *but also* when (3) the object or event under examination matches a specified complexity.¹¹ Dembski adds the following to clarify the notion of specified complexity:

The contingency must conform to an independently given pattern, and we must be able independently to construct that pattern. A random inkblot is unspecified; a message written with ink on paper is specified.¹²

understands chance events as events which happen "spontaneously" (Dembski, *Intelligent Design*, 214). This is not to say, as has been argued in the previous chapter, that a chance/ spontaneous event occurs with no cause whatsoever; rather, this is to say that its causes are necessary for the event's occurrence but not sufficient to guarantee its occurrence.

⁹Dembski, *The Design Inference*, 19.

¹⁰Dembski, *The Design Inference*, 64; Dembski, *Intelligent Design*, 141 (on page 133 Dembski uses the phrase "complexity-specification criterion"); Dembski, "The Third Mode of Explanation," 23 (here Dembski uses the phrase "complexity-specification criterion" too); Dembski, *No Free Lunch*, 6.

¹¹Dembski, *The Design Inference*, chapter 2; Dembski, *Intelligent Design*, chapter 5; Dembski, "The Third Mode of Explanation," 17-51; Dembski, *No Free Lunch*, chapter 1.

¹²Dembski, *Intelligent Design*, 145. See also: William A. Dembski, "Signs of Intelligence," in William A. Dembski & James M. Kushiner, editors, *Signs of Intelligence: Understanding Intelligent Design* (Grand Rapids, Michigan: Brazos Press, 2001), 189; and William A. Dembski, "Naturalism and design," in *Naturalism: A critical analysis*, edited by William Lane Craig & J. P. Moreland (London & New York:

Here, however, some very serious problems come to the fore for Dembski's view. Surely, if Dembski's message written with ink on paper is pure gibberish (say LK*J/QwOI;LN.A%L;-F[*P5AFL-KhNgG;h3HJA;L#KJ), then, in spite of the contingency and improbability of the instantiation of that complex pattern, the mere fact that we could independently give (specify) and construct that pattern would not go far in tweaking our intuitions of intelligent design.¹³ Indeed, the improbable sometimes happens -- even if it is independently specifiable -- without pointing to intelligence. To substantiate this point, Ratzsch tells the story (a true story, according to Ratzsch) of a tumbleweed that blew across the highway in front of his car while he was driving in the countryside.¹⁴ According to Ratzsch, the tumbleweed blew across the highway in front of him and then tumbled precisely and surprisingly through a single hole in a long stretch of fence which ran parallel to the road. In this example the exhibited pattern (the hole in the fence being a "target") can be specified independently of the improbable event itself (the tumbleweed hitting the "target") yet clearly not be due to design (at least not in a reasonably uncontentious way¹⁵). What is missing here? Answer: The pattern needs to be *indicative of intelligence*. Indicativeness of intelligence is clearly the case with Dembski's message written with ink on paper, which presumably is an intelligible message written, say, in English (or Morse

Routledge, 2000), 271. In the latter work, Dembski writes: "A random ink blot is *unspecifiable*; a message written with ink on paper is *specifiable*" (my italics). My critique applies whether we use the word "specifiable" or "specified."

¹³According to Dembski: "Gibberish -- the utterance of nonsense syllables uninterpretable within any natural language -- always actualizes one utterance from the range of possible utterances. Nevertheless, gibberish, by corresponding to nothing we can understand in any language, also cannot be specified." (Dembski, "Naturalism and design," 271) Dembski is right on the first point, but mistaken on the second. Consider the following string of symbols (the same string of symbols given above): LK*J/QwOI;LN.A%L;-F[*P5AFL-KhNgG;h3HJA;L#KJ. Surely, the string of symbols has just been specified (i.e., stated or described explicitly and in detail). And, surely, the string of symbols is gibberish.

¹⁴Ratzsch, *Nature, Design, and Science*, 166-167.

¹⁵Of course, one might argue that God may have made the tumbleweed take the route it did so that we could discern the problem with Dembski's notion of intelligent design. In this case it would appear that intelligent agents such as God can mimic non-intelligent causes. Further discussion of this possibility will be considered to be beyond the scope of this dissertation, since what is of interest in this dissertation are those cases where intelligent causes are not mimicking non-intelligent causes.

code); but it is not at all the case with an inkblot or any other *umintelligible* "message." In other words, Dembski's example is on the mark, but the principle that Dembski claims the example illustrates is off. An object's or event's improbable matching with an independently specifiable pattern is not sufficient for inferring intelligent design. The instantiated pattern, which is the English message in Dembski's example, *has to be indicative of mind*, which is what a message written in English clearly is. But this is to say that the matched pattern has to have deep mind affinity.¹⁶

Granted, then, that the highly improbable instantiation of an independently specifiable pattern does not constitute a *sufficient* condition for intelligent design, we can also ask: Is the highly improbable instantiation of an independently specifiable pattern a *necessary* condition for intelligent design? It seems that the answer is No. Ratzsch gives another example (a hypothetical one this time) of a meteorite crater pattern

¹⁶Intelligent design theorist Stephen Meyer makes the same error that Dembski makes. According to Meyer, "When events are both highly improbable and specified (by an independent pattern) we can reliably detect the activity of intelligent agents" (Stephen C. Meyer, "Evidence for Design in Physics and Biology: From the Origin of the Universe to the Origin of Life," in Michael J. Behe, William A. Dembski, & Stephen C. Meyer, *Science and Evidence for Design in the Universe*, The Proceedings of the Wethersfield Institute, Volume 9 [San Francisco: Ignatius Press, 2000], 55). Like Dembski, Meyer goes on to appeal to the "preexisting requirements of English vocabulary and grammar" as the independent pattern that is specified by a message, which for Meyer is the sentence "Time and tide wait for no man" (Meyer, "Evidence for Design in Physics and Biology," 54). But, as has been argued above, an object's or event's matching a discernable pattern that is highly improbable (on the assumption of there being only non-intelligent causes in operation) plus having the capability of specification by an independent pattern does not constitute a sufficient condition for inferring intelligent design. What is a sufficient condition is that the instantiated pattern, i.e., the message in Meyer's example, be indicative of mind, which is what a message written in English clearly is. But this is to say that the matched pattern has to have deep mind affinity, not just be highly improbable and specified by an independent pattern.

For claims similar to that of Dembski and Meyer, see too intelligent design advocate Michael J. Behe's "Foreword" in Dembski, *Intelligent Design*, 10. Behe appeals to a sequence of Scrabble letters which read METHINKSITISLIKEAWEASEL.

Of course, if there is a *predictive announcement* that a highly improbable event or pattern will occur -- and it occurs -- then the *matching* between the announcement (which is an independent and prior specification in linguistic terms) and the instantiation of this highly improbable event or pattern (i.e., what is specified, even if it is a particular string of gibberish) would constitute a *sign* which confirms the content of the announcement and which points, *by virtue of being such a sign*, to deep mind affinity. But this sort of sign is not what Dembski, Meyer, and Behe seem to have in mind. They seem to be groping toward the notion of deep mind affinity, but they fall short by settling on the notion of an independently specifiable complex pattern, which does not quite get them there (as will be shown above). (For further discussion of signs, but keeping in mind the aforementioned shortcoming, see Dembski, *Intelligent Design*, chapter 1.)

on the moon, physically determined from the moment of the Big Bang, which reads "John 3:16."¹⁷ Given the initial conditions and the laws of nature at the Big Bang (and given physical determinism, for the sake of argument), this pattern is physically necessary and therefore highly probable. Yet, surely, because of the deep mind affinity of "John 3:16," it is reasonable to think that this pattern is designed. Therefore, the improbable instantiation of an independently specifiable pattern is not a necessary condition for design, which means that law need not be ruled out for the sake of discerning deep mind affinity. What matters is whether the instantiated pattern has deep mind affinity.¹⁸

What about chance (where "chance" is understood as an event not wholly determined by antecedent causes to occur)?¹⁹ Does attributing events to chance preclude the possibility of discerning deep mind affinity

¹⁷Ratzsch, *Nature, Design, and Science*, 63. The name and numbers "John 3:16" refer to the well-known New Testament verse which is purportedly a record of Jesus' central teaching: "For God so loved the world, that He gave His only begotten Son [i.e., Jesus], that whoever believes in Him should not perish, but have eternal life" (John 3:16 NASB). As a defence of the claim that John 3:16 is well-known, it is interesting to note that the great popularity of John 3:16 prompted Stanford University's Professor of Computing Science Donald E. Knuth to investigate each of the third chapters and corresponding sixteenth verses of the Bible's sixty-six books as a stratified sample of the larger biblical text. (As it turns out, Knuth's sampling technique left him with 59 books because seven of the biblical books are too short.) The findings of Knuth's investigation culminated in his book *3:16 Bible Texts Illuminated* (Madison, Wisconsin: A-R Editions, Inc., 1991) and his lecture "Randomization and Religion" (Waterloo, Ontario: The University of Waterloo/ The Pascal Lectures, October 18, 2000). It turns out that even in the case of a book as large and diverse as the Bible "a large collection of information can be understood reasonably well by selecting random portions of data and studying them in depth" (Knuth, *3:16*, cover).

¹⁸Instead of a crater pattern on the moon which reads "John 3:16" and therefore requires a conventional system of language, we could countenance the possibility of a face or portrait that looks in all its detail as clear as, say, Rembrandt's painting *The Man with the Golden Helmet*. Along similar lines, Robert Hambourger uses a hypothetical "perfect picture" of a nativity scene formed by frost on a window, explainable by the laws of nature (Robert Hambourger, "Can Design Arguments Be Defended Today?" in *Philosophy of Religion: A Guide and Anthology*, edited by Brian Davies [Oxford: Oxford University Press, 2000], 293). Along similar lines as well, Michael Behe uses a hypothetical, clear and accurate velvet-poster-like image of Elvis Presley's face formed by mold growing on a refrigerator (Michael J. Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution* [New York: The Free Press, 1996], 198-199). Even though such faces and pictures are explainable in terms of the laws of nature, as "John 3:16" is, the faces and pictures display deep mind affinity too.

¹⁹The notion of chance here is understood in terms of what Jacques Monod describes as "essential" chance, which Monod contrasts with "Laplace's world, from which chance is excluded by definition" (Jacques Monod, *Chance and Necessity*, translated by Austryn Wainhouse [New York: Random House, 1972], 115). In other

via those events? The answer very much seems to be No. Why? Because, as John Polkinghorne points out (*contra* Jacques Monod, in a theological discussion of chance and law at work together), "The Christian God is both loving and faithful," so His creation can "display characteristics of both openness [chance] and regularity [law], such as are in fact reflected in the physical interplay of chance and necessity in the process of the world."²⁰ Polkinghorne adds: "That is the divinely ordained way in which the creation is allowed to make itself."²¹ And it is in this creation's unfolding wherein Polkinghorne sees evidence of intelligent design. In other words (and without delving into the details of the alleged evidence of intelligent design to which Polkinghorne refers -- Ratzsch's hypothetical "John 3:16" will here suffice), it would seem that it is possible that the necessary causal conditions of chance events (i.e., causal conditions that are required for the event's occurrence but are not sufficient to guarantee its occurrence) may be limited by a range of possible outcomes, and it is possible that the outcomes within this range can carry out (via the causal outworking in their connections with the rest of nature and its properties) the purposes of a Creator (especially a very smart one), thereby leaving signs of intelligence.²²

At this juncture, it should be pointed out that if Michael Ruse is correct that chance is merely a

words, the notion of chance here is understood in terms of what John Polkinghorne calls "pure chance, absolutely free but blind" (John Polkinghorne, *Serious Talk: Science and Religion in Dialogue* [Valley Forge, Pennsylvania: Trinity Press International, 1995], 73; Polkinghorne says that Monod calls chance this, but no book or page reference to Monod is provided).

²⁰Polkinghorne, *Serious Talk*, 73.

²¹Polkinghorne, *Serious Talk*, 73.

²²In other words (again), even if chance events were to occur spontaneously, and even if the particular outcome of these events were not guaranteed in advance, chance events would not be as blind and purposeless as Dembski thinks (see Dembski, *Intelligent Design*, 165, 214). Arthur R. Peacocke takes such a view, as has been set out above in pages 342-343 of his "Welcoming the 'Disguised Friend -- Darwinism and Divinity,'" in *Philosophy of Biology*, edited by Michael Ruse (Amherst, New York: Prometheus Books, 1998), 337-349; see too pages 140-143 of Arthur R. Peacocke, "Chance and Law in Irreversible Thermodynamics, Theoretical Biology, and Theology," in *Chaos and Complexity: Scientific Perspectives on Divine Action*, 2nd edition, edited by Robert John Russell, Nancey Murphy & Arthur R. Peacocke, Scientific Perspectives on Divine Action series, series edited by Robert John Russell (Vatican City State: Vatican Observatory Publications/Berkeley, California: The Center for Theology and the Natural Sciences, 1997), 123-143.

"confession of ignorance" concerning the laws of nature, then our discussion would return to that of physical determinism (two paragraphs earlier).²³

In view of the above, then, whether the event or object in question is explainable by law and/or chance does not preclude the possible discernment of deep mind affinity.

But what if the event or object in question cannot be explained by law or chance? What then? Can we in this case justify the inference to design? Answer (again): Only if there is a deep mind affinity. Otherwise (as was pointed out above in the critique of the first reading of Dembski), we should embrace agnosticism.

The discernment of signs of intelligence, then, requires the discernment of deep mind affinity, not Dembski's specified complexity.²⁴

But what is deep mind affinity? Clearly, messages in English display deep mind affinity, especially if the messages are complex.²⁵ But minds (human minds at least) do much more than communicate via some language. The view of this dissertation's author is that it is not helpful merely to list feats characteristic of what a (human) mind does so that we can subsequently look at evidence in the universe to see if there is a correspondence of some sort with any items on our list; nor is it required that we set out the necessary and sufficient conditions for what constitutes deep mind affinity. Rather, the view of this dissertation's author is that it is possible to argumentatively display deep mind affinity. Let me explain. At least sometimes (probably often) we can discern an instance of X without being able to articulate the necessary and sufficient

²³Michael Ruse, *Can a Darwinian Be a Christian? The Relationship Between Science and Religion* (Cambridge: Cambridge University Press, 2001), 121.

²⁴For some criticisms of Dembski's mathematical work, see Jeffrey Shallit, Review of *No Free Lunch: Why Specified Complexity Cannot be Purchased Without Intelligence*, by William A. Dembski, *BioSystems* 66 (2002): 93-99.

²⁵A *surface* mind affinity (instead of *deep* mind affinity) could be constituted by strings of symbols that are not very complex, e.g., finding "go" or "yes" near a Scrabble board. Such messages have plausible non-intelligent causal explanations.

conditions for something to be such an instance. The notorious science-versus-nonscience demarcation problem may be helpful here. In spite of the many difficulties involved in the attempts to provide necessary and sufficient conditions for an activity to be science proper (so that one can rule that an activity is *not* science proper), it is nevertheless reasonable to say that we can judge -- without setting out the necessary and sufficient conditions -- that certain human activities are clear cases of science and that certain human activities are clear cases of nonscience. Clear cases of science are physics, chemistry, and biology; clear cases of nonscience are taking the family dog out for an evening walk, going on a summer Sunday afternoon swim, and playing fooseball.²⁶ Similarly, we can and often do judge -- without setting out necessary and sufficient conditions -- that, say, there presently is a tree before me, or that, say, the world has existed for more than five minutes, or that, say, my breakfast consisted of an egg plus a piece of toast with peanut butter plus a cup of orange juice plus a multi-vitamin tablet. (These judgements or beliefs are sometimes deemed "properly basic" beliefs.²⁷) Similarly, too, we can and often do judge -- without setting out necessary and sufficient conditions -- that certain objects or events have the marks of deep mind affinity. Clear cases of deep mind affinity are the *Encyclopedia Britannica*, the Chrysler mini-van assembly plant in Windsor, and the computer on my desk. Also, clear albeit hypothetical cases of deep mind affinity include messages from outer space (recall the movie

²⁶For further discussion of the demarcation problem, see: Larry Laudan, "The Demise of the Demarcation Problem," in *But Is It Science?*, edited by Michael Ruse, Frontiers of Philosophy series, series edited by Peter H. Hare (Amherst, New York: Prometheus Books, 1996), 337-350; Stephen C. Meyer, "The Methodological Equivalence of Design & Descent," in *The Creation Hypothesis: Scientific Evidence for an Intelligent Designer*, edited by J. P. Moreland (Downers Grove, Illinois: InterVarsity Press, 1994), 67-112; J. P. Moreland, *Christianity and the Nature of Science: A Philosophical Investigation* (Grand Rapids, Michigan: Baker Books, 1989), chapter 1.

²⁷The idea of "properly basic" beliefs comes from the works of Alvin Plantinga, William Alston, and Nicholas Wolterstorff. These philosophers also consider belief in God as a properly basic belief. Whether belief in God belongs in this category will not be addressed in this dissertation. For further discussion of properly basic belief in God, see: William P. Alston, *Perceiving God: The Epistemology of Religious Experience* (Ithaca, New York: Cornell University Press, 1991); Alvin Plantinga, "Reason and Belief in God," & Nicholas Wolterstorff, "Can Belief in God Be Rational If It Has No Foundations?", in *Faith and Rationality: Reason and Belief in God*, edited by Alvin Plantinga & Nicholas Wolterstorff (Notre Dame, Indiana: University of Notre Dame Press, 1983), 16-93 & 135-186, respectively.

Contact), a factory on Mars which assembles alien machinery, and Martian computer software. Clear cases of zero (or at least near-zero) deep mind affinity are the strings of gibberish left on the Scrabble board shaken by a sore loser, the patterns of food (etc.) stains on my son's accidentally-thrown-out martial arts uniform deeply buried in the dumpster (and later in the city garbage dump), and some contemporary works of art.²⁸

At this point, it might be objected that the alleged instances of mind-affinity presented thus far involve order, but mind-affinity is very far from demonstrated by order. After all, nature is awash with order, e.g., crystal lattices, and we can understand why they are as such without positing intelligent agents to explain them. In reply, it should be emphasized that we need to realize that there are different sorts of order, of which some has deep mind-affinity, and some not. Yes, nature is awash with a *type* of order that does not have mind-affinity (at least not immediately so, but we will not get into this at this juncture). The type of order that the objector has in mind when he or she talks about crystal lattices is *periodic* order. This type of order consists of a single structure repeated over and over and over. To better understand this type of order, some information theory may be helpful here. According to Leslie Orgel, "the information content of a structure is the minimum number of instructions needed to specify the structure."²⁹ The type of order that the objector has in mind, then, is no-brainer stuff (so to speak). That is to say, this sort of order has a low information content: it takes very few instructions to specify the structure. It is like, say, wrapping paper that can be made with one's computer, wrapping paper that has "Happy Birthday" written over it thousands of times.³⁰ You tell your computer to print "H-a-p-p-y B-i-r-t-h-d-a-y" and to *do it again* until the paper is filled. This is quite

²⁸In the case of some contemporary art, it is clear that intelligent causes can mimic unintelligent causes (some of Jackson Pollock's work comes to mind). It is possible, then, that intelligent causes may be mistaken for unintelligent causes. Of course, it works the other way too: unintelligent causes may be mistaken for intelligent causes (e.g., pulsars were in the not so distant past thought to be providing us with signs of intelligence). The possibility of making a mistake, however, is not sufficient grounds for ruling out actually getting it right sometimes.

²⁹Leslie E. Orgel, *The Origins of Life* (New York: John Wiley and Sons, 1973), 190.

³⁰This example is from Nancy R. Pearcey & Charles B. Thaxton, *The Soul of Science: Christian Faith and Natural Philosophy* (Wheaton, Illinois: Crossway Books, 1994), 239.

simple, requiring little or no intelligence, and we see this sort of thing (e.g., the crystal lattices) all around us in the natural world. But this is not the *only* type of order that is in the world. There is also *aperiodic* order, and a subset of aperiodic order is the type of order which is the focus of this dissertation.³¹ In general, aperiodic order has a high information content, that is, it takes a lot of instructions to specify the structure.³² In this general category of aperiodic order, some aperiodic order has high information content but no deep mind affinity (at least it is not readily discernible): e.g., a description of the topology of a pile of leaves randomly dropped in the back yard, or a description of the locations of the individual grains of sand of a beach. In the general category of aperiodic order, there is also other aperiodic order which has high information content *and* a deep mind affinity. Instead of making wrapping paper with thousands of "Happy Birthday" wishes on it, you write a three-volume fantasy adventure -- *The Lord of the Rings*. This subset of aperiodic order, in other words, is an order that we find in literature and, as pointed out above, in the multi-volume *Encyclopedia Britannica*, the Chrysler mini-van assembly plant in Windsor, plus the computer on my desk. It is the view of this dissertation's author that these are cases in which we clearly see -- recognize -- deep mind affinity. Moreover, our experience of these cases serves as the basis of, as well as confirms, this recognition that it takes intelligence-requiring instructions to build these sorts of patterns/ structures. In the remainder of this chapter, then, an attempt will be made to show (argumentatively display) on a case-by-case basis that some findings from contemporary science exhibit patterns/ structures which are analogous in relevant respects to what we know points to deep mind affinity and which point to deep mind affinity more

³¹The subsequent discussion of the distinction between periodic and aperiodic order is gleaned from Pearcey & Thaxton, *The Soul of Science*, 239-240.

³²There are some instances of order which are not periodic yet have very low information content. Consider, for example, the string of symbols generated by iterating the transformation $0 \rightarrow 01, 1 \rightarrow 0$ (we begin with 01): 01001001001001.... The 01 at the beginning of the string contrasts with the periodic groupings of 001, rendering the whole string, strictly speaking, aperiodic (assuming that we do not consider the groupings commencing with 010 to be periodic). In the view of this dissertation's author such a string of symbols can be understood to be *for the most part* periodic and to be a fringe case of aperiodicity. At any rate, this type of aperiodic order is not of interest in (and is irrelevant to) this dissertation.

clearly than to the major non-deep-mind-affinity alternatives. A case will be made for thinking that the universe's fine-tuning vis-à-vis the instantiation of intelligent human beings (which have objective moral value) points to deep mind affinity, as does the existence of the cell's molecular machinery and DNA code vis-à-vis the instantiation of intelligent human beings (which have objective moral value); and an argument will be made for taking these pointings together as a cumulative case argument.

But first the explanatory legitimacy of appeals to intelligent causes will be defended.³³

³³It should be pointed out here that, contrary to what Branden Fitelson, Christopher Stephens and Elliot Sober criticize Dembski as doing in his *The Design Inference* (see Branden Fitelson, Christopher Stephens & Elliot Sober, "How Not to Detect Design -- Critical Notice: William A. Dembski, *The Design Inference*," *Philosophy of Science* 66 [September 1999]: 486-487), in this dissertation I do not hold that my argument for deep mind affinity trumps *all possible* competing explanations. I am taking the more modest "currently best available explanation" approach.

Also, it should be pointed out that in looking for deep mind affinity, I am not looking only for instances of optimal or perfect design, although such instances of design would be helpful to my case if they exist and were found. Interestingly, Dembski thinks that perfect design "cannot exist except in some idealized realm (sometimes called a 'Platonic heaven')" (William Dembski, "Introduction," in *Signs of Intelligence: Understanding Intelligent Design*, edited by William A. Dembski & James M. Kushiner [Grand Rapids, Michigan: Brazos Press, 2001], 8). Whether Dembski is correct on this point is an issue whose pursuit is beyond the scope of this dissertation. Suffice to say, though, that it seems that a perfect design of a physical contraption, *because* it is a design for a *physical* contraption, would be required to be not capable of existing solely in some idealized realm. At any rate, like Dembski, I am looking for *design in general*, which includes *imperfect* design. Imperfect design is design that is not optimal (as Dembski points out, it may be a "constrained optimization," i.e., an optimizing of conflicting objectives and compromise). Or imperfect design is design that *may have been* optimal but has deteriorated due to age, wear and tear, lack of proper care, or perversion. Or the design in question was not optimal at the start and has deteriorated over time for any of a number of reasons. Surely, old Edsels and Rolls Royces which are now ready for the scrap heap point to design, as do brand new, fresh-off-the-assembly-line Edsels and Rolls Royces (the Rolls Royces being, in the opinion of the rich and famous, those cars nearest to having been heavenly made). Significantly, by looking for design in general, it is possible to sidestep the objection to design raised by Kenneth Miller, who holds that intelligent designers "should produce organisms that have been optimally designed for the tasks they perform" (Kenneth R. Miller, "Life's Grand Design," *Technology Review* 97:2 [February/March 1994]:29). Stephen Jay Gould sets out the suboptimality objection too in his *The Panda's Thumb* (New York: Norton, 1980), 20-21. For further discussion of the suboptimality objection, see Behe, *Darwin's Black Box*, 222-230. For a critique of Gould's position, see Dembski, "Introduction," 9-12. Dembski writes: "The design theorist is not committed to every biological structure being designed. Mutation and selection do operate in natural history to adapt organisms to their environments. Perhaps the panda's thumb is merely such an adaptation and not designed." (Dembski, "Introduction," 10.)

III. Defending the Legitimacy of Intelligent Causes as Explanations

It should be emphasized in this chapter that appeals to intelligent causes (agent causes) are very much a legitimate part of the explanatory enterprise, scientific and otherwise. Very significantly, J. P. Moreland points out that

some branches of science, including SETI [Search for Extra-Terrestrial Intelligence], archeology, forensic science, psychology and sociology, use personal agency and various internal states of agents (desires, willings, intentions, awareness, thoughts, beliefs) as part of their description of the causal entities, processes, events or actions cited as explanations for certain phenomena.³⁴

Indeed, in archeology the hypothesis of intelligent agency is readily available to scientists to explain the cause of, say, ancient cave paintings. Also, in SETI the hypothesis of intelligent agency is readily available to scientists to explain radio signals that have the *indicia* of intelligence.³⁵ And so on.

Of course, one might object that the hypothesis of intelligent agency is not an appropriate tool in the so-called *natural* sciences, e.g., biology. The objection is that in the natural sciences we should adopt a *methodological naturalism*: i.e., we should adopt an investigative or procedural assumption that nature is all

³⁴J. P. Moreland, "Theistic Science & Methodological Naturalism," in *The Creation Hypothesis: Scientific Evidence for an Intelligent Designer*, edited by J. P. Moreland (Downers Grove, Illinois: InterVarsity Press, 1994), 55.

³⁵Whether SETI has any hope of finding signals from intelligent alien life is beside the point. The point here is that SETI, as a legitimate science, uses the hypothesis of intelligent agency. For more on SETI's scientific status, see David Lamb, *The Search for Extraterrestrial Intelligence: A Philosophical Inquiry* (London & New York: Routledge, 2001), chapter 2.

One might object that the appeal to SETI is not the search for intelligence *per se* but for intelligent *life*. In reply it should be pointed out that this distinction makes no difference for the project at hand. In looking for intelligent life we look for life which *displays* intelligence in its effects, and it is on the basis of this displayed intelligence that we discern life. So the discernment of intelligence *per se* comes first; the question about the nature of that which manifests this intelligence comes later. SETI's attempt to discern intelligence *per se* as a first step to discerning life in the far reaches of the universe is relevant to the broader discernment of intelligence *per se* as a first step to discerning life *beyond* the universe (or life that is deeply within, or the ground of, the universe; i.e., the ground of the Big Bang, which is, in a sense, everywhere, or omnipresent).

there is. In other words, for the sake of science -- especially science which concerns the natural world -- we should assume that there is *no* intelligent agency.³⁶

Is the objection a good one? We should think not. Why? Because assuming that the hypothesis of intelligent agency is *always* inappropriate begs the question with respect to the *possibility* of a supernatural intelligent cause impacting the natural realm (i.e., in the possibly created realm). As Moreland correctly points out, "classification of a science as 'natural' in the methodological sense should *follow after* arguments about the data rather than being a question-begging Procrustean legislation used to eliminate other views by definition."³⁷ In other words, if there is a mere *possibility* for an intelligent agent such as God or a God-like being to exist and impact the natural world -- and such a possibility seems very unreasonable to rule out *a priori*, especially given the assumptions of this dissertation³⁸ -- then it is unreasonable to block the way of inquiry by not allowing science and philosophy to account for this possibility. As Stephen Meyer astutely puts the matter: "Artificial limitations upon theory construction only leave open the possibility that the best explanations may not have been considered."³⁹

At this juncture (or even earlier perhaps), a philosopher such as Jan Narveson might object that the whole project of allowing the possibility of a minded creator of the world as a hypothesis should be rejected

³⁶This objection is not limited to non-religious scientists or philosophers. There are also some Christian philosophers and scientists who defend methodological naturalism. For examples, see: Paul de Vries, "Naturalism in the Natural Sciences: A Christian Perspective," *Christian Scholar's Review* 15 (1986), 388-96; Howard Van Till, Davis A. Young, & Clarence Menninga, *Science Held Hostage* (Downers Grove, Illinois: InterVarsity Press, 1988); and Robert C. O'Connor, "Science on Trial: Exploring the Rationality of Methodological Naturalism," *Perspectives on Science and Christian Faith* 49:1 (March 1997), 15-30.

³⁷Moreland, "Theistic Science & Methodological Naturalism," 55.

³⁸As was pointed out in the introduction to this dissertation, for the purpose of this dissertation it has been (and is) assumed that the following are logically coherent: the possibility of an immaterial realm, the concept of an immaterial causal agent, the concept of an all-good and all-knowing and all-good designer/creator who allows evil and suffering to exist, the concept of God incarnate, etc. For references, see the relevant footnotes in the introduction.

³⁹Stephen C. Meyer, "The Use and Abuse of Philosophy of Science: A Response to Moreland," *Perspectives on Science & Christian Faith* 45:1 (March 1994): 17.

because it lacks sense: the hypothesis requires a significant contrast but it very apparently lacks such a contrast.⁴⁰ The objection seems to be that if there is no nonvacuous contrast -- no intelligible opposite -- for the hypothesis of a minded creator, then the hypothesis of a minded creator cannot serve as an intelligible description.⁴¹ To support his objection, Narveson first argues as follows:

[T]he events we usually call instances of "creation" are themselves natural processes, and this makes it a little difficult to get the intended contrast off the ground. Mary baking pies is a creative process, of a minor but nice sort; we don't think any magic is involved there. The pie grows by purely natural processes, unless we want to claim that Mary's thoughts as she proceeds are themselves "non"-natural. Now some may want to make that claim, but it is quite unclear what the status of the claim is, and in any case the model is quite inappropriate to the hypothesis of a minded super-creator, which would seem to have to be a pure mind, not a mind in a finite material body -- which, of course, is our situation.⁴²

In reply to Narveson one could argue as follows. In the present situation (i.e., the argument in this dissertation), the exact nature of the minded supercreator is neither established nor under investigation: whether it is pure mind or somehow embodied -- or whatever -- is an open question. Thus far (from the work in chapter 3) the being in question has been simply conceived as a very powerful causal source of matter/energy which or who transcends our universe. The present project (i.e., the project in the present chapter, chapter 4) is to determine, from the characteristics of the being's (or beings') effects on our world, whether it is reasonable to attribute intelligence to that being (or beings). But first things first. At the ground level the needed contrast is not, contrary to what Narveson seems to think, that of magical creator versus non-magical creator; rather, the needed contrast is that of intelligent cause versus non-intelligent cause. To be sure,

⁴⁰Jan Narveson, "God by Design?", in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 90-92.

⁴¹To better understand Narveson's objection, consider Kai Nielsen's aquatic illustration of the need for nonvacuous contrast: "Note that it makes no sense at all to call something a 'small trout' without allowing anything that could at least in principle be specified to count as a 'large trout' or 'non-small trout.' Without such a nonvacuous contrast, 'small' cannot really characterize trout." (Kai Nielsen, *Reason and Practice: A Modern Introduction to Philosophy* [New York: Harper & Row Publishers, 1971], 442.)

⁴²Narveson, "God by Design?", 90.

the things we usually call "creation" are natural processes in the sense that they involve intelligences which occur in nature (and which may or may not be explained in wholly physical/materialist terms⁴³). However, to say that Mary's pie "grows by purely natural processes" and leave it at that seems to be needlessly obscurantist. It is not only meaningful but also much more clear and precise with respect to the things we usually call "creation" to say that Mary's pies grow via an *intelligent cause* having its way with non-intelligent materials (while we simply bracket the question about the exact nature of Mary's mind and about whether or not minds can carry on in some sort of disembodied way⁴⁴). So the needed contrast gets off the ground. Indeed, the following question seems quite sensible: Does the expanding universe (and the development of its contents), like Mary's pies, grow via an intelligent cause having (or having had) its way with non-intelligent materials?

Narveson continues his lack-of-significant-contrast objection with the following argument, which he takes to pose a problem that is more fundamental than that posed by the previous objection:

But it is our understanding -- such as it is, but fairly extensive -- of natural processes, that is, our more or less intuitive grip on the "laws of nature" such as gravitation, inertial mechanics, and biological processes, which forms the background upon which we distinguish "natural" from other sorts of causes. If creation of the laws of nature themselves is in question, there is no background to fall back on, nothing to give any sense to a distinction between the natural and the supernatural. This complication is so fundamental that it would leave us

⁴³For an interesting discussion on the nature of the conscious mind, see David J. Chalmers, *The Conscious Mind: In Search of a Fundamental Theory*, Philosophy of Mind series, series edited by Owen Flanagan (New York & Oxford: Oxford University Press, 1996). Chalmers writes: "I have not disputed that the physical world is causally closed or that behavior can be explained in physical terms; but if a physicist or a cognitive scientist suggests that consciousness can be explained in physical terms, this is merely a hope ungrounded in current theory, and the question remains open" (Chalmers, *The Conscious Mind*, xiii).

⁴⁴For an interesting (and careful) look at Near-Death Experiences (NDEs) as evidence for disembodied existence of the mind, see Gary R. Habermas & J. P. Moreland, *Beyond Death: Exploring the Evidence for Immortality* (Wheaton, Illinois: Crossway Books, 1998), chapters 7-9. For criticisms of NDEs as evidence for disembodied existence, see Susan Blackmore, *Dying to Live: Near Death Experiences* (Buffalo, New York: Prometheus Books, 1993). In chapter 9 of *Beyond Death*, Habermas and Moreland critically evaluate Blackmore's criticisms. See too Michael Sabom, "The Shadow of Death (Part One)," *Christian Research Journal* 26:02 (2003): 13-21, and Michael Sabom, "The Shadow of Death (Part Two)," *Christian Research Journal* 26:03 (2003): 42-51.

hardly knowing what to say about any of these questions⁴⁵

In reply, one could argue that the coming into being of the laws of nature has a foil in the sense that it (the laws' coming into being) is an instance of what Ratzsch calls "quasi-counterflow."⁴⁶ Ratzsch holds that when an intelligent agent (such as a human being) acts on nature the action occurs against the regular course or "flow" of nature, and so exhibits "counterflow."⁴⁷ According to Ratzsch, "*counterflow* refers to things running contrary to what, in the relevant sense, *would* (or *might*) have resulted or occurred *had* nature operated freely," that is, had nature operated without agent intervention.⁴⁸ In the case of the creation of the laws of nature, however, the background "flow" is taken to be the alternatives to the laws which could have been chosen by the creator or, in the absence of knowledge concerning a creator, could (conceivably) simply have been the case.⁴⁹ *Quasi-counterflow*, then, is the counterflow that occurs in the establishment of nature in the sense that the initial conditions and laws are selected from the alternatives (e.g., nonintelligent life permitting alternatives) which could have been selected. In the case of a single universe scenario, the flow prior to quasi-counterflow would consist of "ongoing" noncreation (as, say, a set consisting of the number 1 contrasts with the null set). In the case of a many-universes scenario, the flow prior to quasi-counterflow would consist of a vast number of nonintelligent life permitting universes (as, say, a set consisting of the number 1 contrasts with the remaining set of positive integers).

Thus, *pace* Narveson, talk of a very powerful, transcendent and intelligent causal source of matter/energy seems very much to be intelligible because a nonvacuous contrast can be conceived (though

⁴⁵Narveson, "God by Design?", 90-91.

⁴⁶Ratzsch, *Nature, Design and Science*, 54.

⁴⁷Ratzsch, *Nature, Design and Science*, 4ff.

⁴⁸Ratzsch, *Nature, Design and Science*, 5.

⁴⁹Ratzsch, *Nature, Design and Science*, 53-54.

hard to picture or imagine in concrete terms).⁵⁰

At this juncture, one might present the so-called God-of-the-gaps objection against any appeal to an intelligent agent for explaining phenomena found in the natural realm. The concern is that the hypothesis of intelligent agency will be applied inappropriately, merely filling gaps in our knowledge. As Ian Barbour points out, "the 'God of the gaps' [is] the *deus ex machina* introduced to cover ignorance of what may later be shown to have natural causes."⁵¹ Moreover, David Hull warns: "Once [scientists] allow reference to God or miraculous forces to explain the first origin of life or the evolution of the human species, they have no way of limiting this sort of explanation."⁵² In other words, as Michael Behe observes: "There is the anxiety that if the supernatural were allowed as an explanation, then there would be no stopping it -- it would be invoked frequently to explain many things that in reality have natural explanations."⁵³ At the heart of the God-of-the-gaps objection, then, is the idea that the application of a hypothesis must be guided by reasonable constraints but, or so the objection goes, the hypothesis of intelligent agency has none.

Is the God-of-the-gaps objection a good one? Is the hypothesis of intelligent agency such that it can only be applied without constraint to cover our ignorance? We should think not. The God-of-the-gaps objection fails because the application of intelligent agency can be guided by two very reasonable constraints.

Reasonable Constraint #1. In many sciences, explanations in terms of intelligent agency constitute

⁵⁰To conceive of X is to form a concept or definition of X without incurring a contradiction; it does not require a formation of mental imagery or picturing of X.

⁵¹Ian Barbour, *Issues in Science and Religion* (London: SCM Press, 1966), 390. It is interesting to note that the god-of-the-gaps objection is not limited to atheistic or agnostic philosophers. Some *Christian* philosophers put forth the god-of-the-gaps objection, too. See: Nancey Murphy, "Phillip Johnson on Trial: A Critique of His Critique of Darwin," *Perspectives on Science and Christian Faith* 45:1 (March 1993): 34; and Robert C. O'Connor, "Science on Trial: Exploring the Rationality of Methodological Naturalism," *Perspectives on Science and Christian Faith* 49:1 (March 1997): 27.

⁵²David Hull, "God of the Galapagos," *Nature* 352 (1991): 485-486.

⁵³Michael J. Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution* (New York: The Free Press, 1996), 241. Behe merely points out this anxiety; he does not suffer from it.

a syntactically/ categorically inappropriate response to the question motivating those sciences. As Meyer points out, the sciences can be divided into two rough classes: *historical* and *nonhistorical* (or nomological).⁵⁴ The nonhistorical sciences, which consist of branches of physics, chemistry, and biology, are "concerned primarily with the discovery and explication of general phenomena."⁵⁵ The goal of these sciences is to investigate the world's regular operations, i.e., "to discover, classify or explain unchanging laws and properties of nature."⁵⁶ The historical sciences, on the other hand, consist of such sciences as historical geology, evolutionary biology, and archaeology. Their concern is "to reconstruct the past and explain the present by reference to the past," i.e., to "explain events or data not primarily by reference to laws but by reference to past causal events or sequences of events -- what might be called 'causal histories.'"⁵⁷ Clearly, an appeal to intelligent agency is not always inappropriate in the historical sciences. As noted previously, in archaeology it makes sense to claim that an intelligent agent was the cause of what appears to be a cave painting. Also, in historical biology it makes sense to claim that an intelligent agent may have been the cause of life's origin. Of course, these claims might be *false*. However, with respect to the motivating questions of the historical sciences -- i.e., questions of the sort "What is the cause of X?" -- *they are not logically inappropriate responses*. On the other hand, in the nonhistorical sciences an appeal to intelligent agency is logically *inappropriate always*. The answer "an intelligent agent did it" fails to respond correctly to the *kind* of question

⁵⁴Stephen C. Meyer, "The Methodological Equivalence of Design & Descent," in *The Creation Hypothesis: Scientific Evidence for an Intelligent Designer*, edited by J. P. Moreland (Downers Grove, Illinois: InterVarsity Press, 1994), 67-112. See too Stephen C. Meyer, "Of Clues and Causes: A Methodological Interpretation of Origin of Life Studies" (Ph.D. dissertation, University of Cambridge, 1990).

⁵⁵Meyer, "The Methodological Equivalence of Design & Descent," 88.

⁵⁶Meyer, "The Methodological Equivalence of Design & Descent," 89.

⁵⁷Meyer, "The Methodological Equivalence of Design & Descent," 88. In making the distinction between historical science and nonhistorical science, Meyer appears to follow the work of Norman L. Geisler and J. Kerby Anderson. In *Origin Science: A Proposal for the Creation-Evolution Controversy* (Grand Rapids, Michigan: Baker Book House, 1987), Geisler and Anderson distinguish between "operation science" and "origin science." Operation science has to do with the regularities of nature; origin science has to do with singularities in nature.

motivating the nonhistorical sciences. Nonhistorical sciences ask questions concerning how nature operates *normally* -- i.e., how nature operates *without the interference of human, alien, or divine causal agency* -- and so they seek answers which involve the descriptive and/or explanatory use of natural laws and non-intelligent processes. As Meyer points out,

To offer "God did it" as an answer to a question such as "How does weightlessness generally affect crystal growth?" clearly misses the point of the question. The answer does not so much violate the rules of science as the rules of grammar.⁵⁸

Appeals to intelligent agency in the natural realm, then, are constrained by the fact that they are *syntactically inappropriate* in the nonhistorical sciences. In the nonhistorical sciences, in other words, to appeal to the intelligent agency of God or a God-like being is to incur a category mistake.⁵⁹

Reasonable Constraint #2. Appeals to intelligent agency are appropriately made in the historical sciences *only when* two conditions are satisfied: (1) non-intelligent causes seem very much to be unable to account for the phenomenon in question; *and* (2) there is evidence of an intelligent cause producing a phenomenon that is similar in the relevant respects to the phenomenon in question. The point here is that, to be legitimate, an appeal to the intelligent cause hypothesis must involve the application of careful reasoning that is firmly based on (putative) positive knowledge, not ignorance, of the world. This is not to say that condition 1 (that non-intelligent causes seem very much to be unable to account for the phenomenon in question) can be known in a 100% conclusive way (i.e., that we know for sure that non-intelligent causes are in fact unable to account for the phenomenon in question). Yes, for some if not many X's, we can know that we do not *yet* know why X is the way it is, and we may *never* know with certainty why X is the way it is.

⁵⁸Meyer, "The Methodological Equivalence of Design & Descent," 95-96.

⁵⁹It may be helpful here to recall that, as Simon Blackburn explains, a category mistake "arises when things or facts of one kind are presented as if they belonged to another." In other words, "Someone would make a category mistake if after being shown all the battalions and regiments she wished to be shown the army." (Simon Blackburn, *The Oxford Dictionary of Philosophy* [Oxford: Oxford University Press, 1994], 58.)

Nevertheless, we can make a *fairly good case* (as will be seen later in this chapter) for thinking that *in some particular instance Y* non-intelligent causes seem very much unable to account for the phenomenon in question.⁶⁰ Moreover, even if it is possible that at some future date non-intelligent causes could account for Y, the fact remains that, to use a legal analogy, even if it is always possible that a conviction of guilt will be overturned at some future date, that does not mean that such convictions are never reasonable to make. Thus, the careful use of evidence and reason -- i.e., evidence and reason founded on what we know, not on what we do not know -- serves to constrain the application of the hypothesis of intelligent agency even further.

Because the application of the hypothesis of intelligent agency is guided by two very reasonable constraints, the God-of-the-gaps objection to the legitimacy of its use in the natural realm is weak, if not a failure.⁶¹

At this juncture, Eugenie Scott undoubtedly would object to the legitimacy of using an invisible intelligent agent such as God or a God-like being as an explanatory hypothesis in science. Why? Because,

⁶⁰See too my reply to John Stuart Mill and Michael Martin in chapter 5, when they object that a resurrection can always be explained by a natural cause.

⁶¹Of course, we may be haunted by the memory of Isaac Newton postulating divine intervention to adjust the orbits of the planets, and so we might continue to fear that supernatural explanations in science will still show up everywhere. This fear can be to some extent alleviated, however, when the memory of Newton's mistake is put into proper historical perspective. According to Behe: "Science has learned over the past half millennium that the universe operates with great regularity the great majority of the time, and that simple laws and predictable behavior explain most physical phenomena. Historians of science have emphasized that science was born from a religious culture -- Europe in the Middle Ages -- whose religious traditions included a rational God who made a rational, understandable, law-bound universe. Both science *and* religion expect that the world will almost always spin according to the fixed law of gravity." (Behe, *Darwin's Black Box*, 241.) Thus, not only should Newton be forgiven for his mistake, since he lived in a religious culture that undoubtedly inclined him to appeal to God, but also Newton should be rebuked, since his appeal to God's intervention was religiously inappropriate. Hence, the haunting aspect of the memory of Newton's mistake can to a large measure be exorcised.

For further defence of the claim that science was born from a (Christian) religious culture, see: Stanley L. Jaki, *Science and Creation* (Edinburgh: Scottish Academic Press, 1974); Rejer Hooykaas, *Religion and the Rise of Modern Science* (Edinburgh & London: Scottish Academic Press, 1972); and Nancy R. Pearcey & Charles B. Thaxton, *The Soul of Science: Christian Faith and Natural Philosophy* (Wheaton, Illinois: Crossway Books, 1994).

according to Scott, "You can't put God in a test-tube."⁶² The idea seems to be that the intelligent agent hypothesis should not be allowed because we have no direct or empirical observation of this agent's actual creative acts (in the creation of, say, life, or the universe). To be legitimate, according to this objection, the entity or event described by a hypothesis is required to be directly observable. Surely, however, Scott's requirement is mistaken, for two reasons. First, the direct unobservability of a hypothesized entity or event does not make the hypothesis unscientific. Clearly, there are many events and entities that are not directly observable (some even in principle) yet they remain a legitimate part of the scientific enterprise. According to Meyer:

Forces, fields, atoms, quarks, past events, mental states, subsurface geological features, molecular biological structures -- all are unobservables inferred from observable phenomena. Nevertheless, most are unambiguously the result of scientific inquiry.⁶³

As Larry Laudan correctly points out, in much of what is uncontroversially science, a hypothesis or proposition describing an unobservable entity is not and cannot be tested empirically in isolation; rather, such propositions are tested only as embedded in larger theories or sets of propositions (auxiliary assumptions and bridge principles included) whose consequences *can* be tested empirically.⁶⁴ The second reason for thinking

⁶²Eugenie Scott & Phillip E. Johnson, National Public Radio Debate (Colorado Springs, Colorado: Access Research Network, October 1993), audio cassette. (Scott is a scientist who is also the executive director of the U.S. National Centres for Science Education, which is a job that requires her to engage in philosophical discussions of what constitutes proper science.)

⁶³Meyer, "The Methodological Equivalence of Design & Descent," 83.

⁶⁴Larry Laudan, "Science at the Bar -- Causes for Concern," in *But Is It Science? The Philosophical Question in the Creation/ Evolution Controversy*, edited by Michael Ruse, Frontiers of Philosophy series, series edited by Peter H. Hare (Amherst, New York: Prometheus Books, 1996), 352.

In this dissertation there will be no attempt made to make any serious contribution to the debate between the realist and anti-realist understandings of theoretical entities. This dissertation inclines toward scientific realism (the view that there is a theory-independent world, that the aim of science is to provide a true picture of the world, that good scientific theories are true or approximately true, that central theoretical terms make existence claims, and that scientific theories are not incommensurable). However, it is realized too that scientific realism is not without serious problems (e.g., the notion of approximate truth is problematic; many "true" theories of the past are false yet have displayed the various epistemic virtues of a good realist theory;

that Scott's view is mistaken is the fact that -- as already has been pointed out with respect to SETI, archaeology, forensic science, psychology, etc. -- appeals to directly-unobservable intelligent agency *are* very much a legitimate part of the scientific enterprise. We apparently cannot put aliens, ancient cave dwellers, criminals, personal desires, etc. into test tubes either, but that does not make the investigation of their effects and positing them as causes unscientific or otherwise illegitimate. Thus, Scott's objection fails.

At this juncture, it might be objected that an appeal to a very powerful, transcendent and intelligent causal source of matter/energy has a "lack of explanatory detail about the mechanism of creation" and so is deficient as an explanatory hypothesis.⁶⁵ According to Narveson:

If we are serious about "natural theology," then we ought to be ready to supply content in our explication of theological hypotheses just as we do when we explicate scientific hypotheses. Such explications carry the brunt of explanation....

Natural theology proposes the hypothesis of creation as an explanation of how things got to be as they are. But in the absence of any remotely credible account of mechanism, in the broadest sense, it is an "explanation" in name only -- a wave of the hand, or perhaps we should say a sweeping under the carpet, when scientific push comes to explanatory shove.⁶⁶

realist and antirealist views of science are both empirically equivalent and both seem to be able to explain the apparent success of science; some present-day scientific endeavours such as quantum mechanics seem impossible to accept along realist lines; observations are to varying extents theory-laden, thereby making the claim that theories are commensurable not easy to defend). It seems reasonable to agree with Moreland when he writes: "I see no reason why one cannot adopt an eclectic approach to science that adopts a realist/antirealist view on a case-by-case basis" (J. P. Moreland, *Christianity and the Nature of Science: A Philosophical Investigation* [Grand Rapids, Michigan: Baker Book House Company, 1989], 203). For example, whereas quantum theory seems reasonable to understand in strong instrumentalist terms, neo-Darwinian theories and creationist theories of life's origins and development seem best understood in realist terms. And for many theories in between, it seems that Bas van Fraassen's semantic realism combined with (varying degrees of) epistemic skepticism is appropriate. For some important discussions concerning scientific realism and competing anti-realist models of the scientific enterprise, see: W.H. Newton-Smith, *The Rationality of Science* (London & New York: Routledge & Kegan Paul, 1981); and Edwin Hung, *The Nature of Science: Problems and Perspectives* (Belmont, California: Wadsworth Publishing Company, 1997). Also see Moreland's *Christianity and the Nature of Science*, 139-212.

⁶⁵Narveson, "God by Design?", 93.

⁶⁶Narveson, "God by Design?", 94.

In reply, one could point out that Narveson's objection seems to beg the question concerning the legitimacy of explanatory hypotheses by favouring mechanist explanations. The fact of the matter is that not all good explanations explain via mechanism. Indeed, sometimes in science appeals to intelligent causes are made and simply left at that. For examples (again): forensic science and archeology. Also, as Dembski points out, "SETI researchers . . . are not invoking a mechanism when they explain a radio transmission from outer space as the result of an extraterrestrial intelligence."⁶⁷ To be sure, SETI researchers sometimes invoke mechanisms, but they do this only to explain non-intelligent causes. To explain a pattern that displays deep mind affinity, they do not appeal to mechanisms -- they appeal to an intelligent cause. To drive home the point against mechanistic explanations constituting the sole legitimate explanation-type in science, it should be noted that sometimes in science appeals are made to postulated entities or forces that are non-intelligent causes yet have no deeper mechanism, and these appeals are considered legitimate explanations. As Meyer points out, "Newton's universal law of gravitation was no less a scientific theory [and no less a good explanation] because Newton failed -- indeed refused -- to postulate a mechanistic cause for the regular pattern of attraction his law described."⁶⁸ To be sure, Newton's theory was later superseded by Einstein's theory; nevertheless, the fact remains that Newton's theory is rationally acceptable given the state of knowledge in Newton's time. Similarly, an appeal to an intelligent cause today, be it human or otherwise, may later be superseded by some different and/or deeper theory; however, the fact remains that in the meantime intelligent causation is a rationally acceptable explanation given the state of our knowledge.

There seems to be, then, no principled way to keep God or a God-like being -- i.e., a very powerful, transcendent and intelligent cause -- out of the pool of reasonable explanatory possibilities.⁶⁹

⁶⁷Dembski, *No Free Lunch*, 330.

⁶⁸Meyer, "The Methodological Equivalence of Design & Descent," 86.

⁶⁹Of course, God or a God-like being would -- and should -- be kept out of the pool of reasonable explanatory possibilities if such concepts are logically incoherent. It is an assumption of this dissertation, however, that these concepts are not logically incoherent. See the relevant references in the introduction for

IV. Large-Scale Design: Fine-Tuning of the Universe

In this section, it will be argued that the contemporary scientific finding that there very much appears to be a fine-tuning at the beginning of the universe for the conditions needed for the development of intelligent human life, when supplemented with the thesis of chapter 2 (that it is reasonable to believe that intelligent human beings have objective moral value), constitutes evidence for a sign of intelligence with respect to the universe's cause. Some evidence for fine-tuning will be examined briefly; the claim that this evidence needs no explanation will be refuted; an argument for deep mind affinity will be set out; two major counterarguments will be shown to falter.

A. Some Evidence for Fine-Tuning

Although the scientific community is in conflict over whether or not fine-tuning constitutes evidence of intelligent agency -- in fact, only a minority of scientists hold to the intelligent agency view whereas the majority hold to a single- or multi-universe chance view -- that there very much appears to be a fine-tuning at the beginning of the universe for the conditions of subsequent intelligent human life is pretty much established by the scientific community.⁷⁰ In fact, as John Leslie points out, "The [scientific] evidence of fine

further reading and defence of this assumption.

⁷⁰In this dissertation, the words "fine-tuning," "fine-tuned," "finely-tuned," etc. will be used as synonyms for the phrases such as *marvellously-high degree of integrated and correlated factors* and their variants (including the phrase *peculiar contingency*, which is a phrase whose meaning will be made clearer a bit later in this section). It is not the intention of the author of this dissertation to use the words "fine-tuned," etc. in a question-begging way to smuggle in the notion of a tuning agent or intelligent tuner/designer. Nevertheless, the words "fine-tuned" etc. will be used because they are standard fare in the literature and because they are much less cumbersome than any phrases which attempt to remain more neutral with respect to agency.

For a look at the work of some scientists who reject the appeal to an intelligent designer as an explanation of the universe's fine-tuning, see: Victor J. Stenger, "Natural Explanations for the Anthropic Coincidences," *Philo* 3:2 (Fall-Winter 2000): 50-67; Victor J. Stenger, "Is the universe fine-tuned for us?", in Matt Young & Taner Edis, editors, *Why Intelligent Design Fails: A Scientific Critique of the New Creationism* (New Brunswick, New Jersey: Rutgers University Press, 2004), 172-184; Andrei Linde, "Particle Physics and Inflationary Cosmology," *Physics Today* 40 (1987): 61-68; Andrei Linde, *Particle Physics and*

tuning is strong."⁷¹ Leslie later cautions: "No doubt some of the claims [about fine-tuning] will turn out to be wrong."⁷² Nevertheless, Leslie adds, "What is impressive . . . is not any particular one of the claims about fine tuning, but the large number of claims that seem plausible, and the consequent implausibility of thinking that every single claim is erroneous."⁷³ Because the list of these fine-tuned factors is lengthy and becomes more detailed as scientists continue their investigations, no attempt will be made here to list or describe the factors exhaustively. Rather, to get an impressionistic picture of the evidence, we will look very briefly at only a few of these fine-tuned factors -- the electron's electric charge, the early expansion rate of the universe, the low entropy condition at the beginning of the Big Bang -- and we will look very briefly at the nature of these factors' finely-tuned interrelatedness. (The reader is referred to the following footnote for references for further investigation.⁷⁴)

Inflationary Cosmology (New York: Academic Press, 1990); Edward P. Tryon, "Is the Universe a Vacuum Fluctuation?" *Nature* 246 (1973): 396-397; D. Atkatz & H. Pagels, "Origin of the Universe as a Quantum Tunneling Event," *Physical Review D* 25 (1982): 2065-2073. (Replies will be made to these authors' main theses later in this chapter.)

Again, it should be acknowledged that to call something "established by the scientific community" is to admit corrigibility and tentativeness concerning that something, especially since scientific consensus can change drastically and quickly due to new discoveries. Nevertheless, it is the view of the author of this dissertation that it is reasonable to look at the philosophical significance of the present albeit possibly transitory findings delivered by science.

⁷¹John Leslie, "The Anthropic Principle Today," in *Modern Cosmology & Philosophy*, edited by John Leslie (Amherst, New York: Prometheus Books, 1998), 290.

⁷²John Leslie, "The Meaning of Design," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 57. For some discussion of some of the parameters of physics whose fine-tuning have been corrected/refined, see Robin Collins, "Evidence for Fine-tuning," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 178-199.

⁷³Leslie, "The Meaning of Design," 57.

⁷⁴John D. Barrow & Frank J. Tipler, *The Anthropic Cosmological Principle* (Oxford: Clarendon Press, 1986); Walter L. Bradley, "The 'Just So' Universe: The Fine-Tuning of Constants and Conditions in the Cosmos," in *Signs of Intelligence: Understanding Intelligent Design*, edited by William A. Dembski & James M. Kushiner (Grand Rapids, Michigan: Brazos Press, 2001), 157-170; Collins, "Evidence for Fine-tuning"; John Gribbin & Martin Rees, *Cosmic Coincidences* (New York: Bantam Books, 1989); John Leslie, *Universes* (London & New York: Routledge, 1989), chapter 2; Leslie, "The Anthropic Principle Today"; Hugh Ross, "Big Bang Model Refined by Fire," in *Mere Creation: Science, Faith & Intelligent Design*, edited by William

Consider the electron. Stephen Hawking points out that "if the electric charge of the electron had been only slightly different, stars either would have been unable to burn hydrogen and helium, or else they would not have exploded," thereby precluding the development of the necessary materials for the subsequent development of intelligent human life.⁷⁵

Also, consider the expansion rate of the universe at the Big Bang. If this rate were to vary only very slightly, there would be no place for life to evolve. As Hawking points out: "If the rate of expansion one second after the big bang had been smaller by even one part in a hundred thousand million million, the universe would have recollapsed before it ever reached its present size."⁷⁶ And, as Leslie points out: "An early increase [in the Big Bang's expansion rate] by one part in a million would have prevented the growth of galaxies, stars and planets."⁷⁷

Consider, too, the low entropy condition needed at the Big Bang for our universe to exist. Roger Penrose has calculated that relative to the possible alternatives, to achieve this condition "the accuracy of the Creator's aim" would have to be one out of $10^{10(123)}$.⁷⁸ Interestingly, as John Jefferson Davis points out, "An

A. Dembski (Downers Grove, Illinois: InterVarsity Press, 1998), 363-384; Hugh Ross, *The Creator and the Cosmos*, 3rd edition (Colorado Springs, Colorado: Navpress, 2001), chapter 14. Especially recommended for the non-scientist is Ross's *Creator and the Cosmos*, pages 154-157, wherein Ross very conveniently provides a readable and recently updated list of "[m]ore than two dozen parameters [actually, 35 parameters] for the universe [which] must have values falling within narrowly defined ranges for physical life of any conceivable kind to exist." Also, on pages 188-193 of *The Creator and the Cosmos*, Ross lists 66 additional parameters for the fine-tuning of the galaxy-sun-earth-moon system for life support.

⁷⁵Steven Hawking, *A Brief History of Time, Updated and Expanded Tenth Anniversary Edition* (New York: Bantam Books, 1996), 129.

⁷⁶Hawking, *A Brief History of Time*, 126; Stephen Hawking, *The Theory of Everything: The Origin and Fate of the Universe* (Beverly Hills, California: New Millennium Press, 2002), 104.

⁷⁷John Leslie, "The Anthropic Principle, World Ensemble, Design," *American Philosophical Quarterly* 19:2 (April 1982): 141. Cf. Hawking, *Theory of Everything*, 104.

⁷⁸Roger Penrose, "Time-asymmetry and quantum gravity," in *Quantum Gravity*, 2nd edition, edited by C. J. Isham, Roger Penrose & D. W. Sciama (Oxford: Clarendon Press, 1981), 249; see too Steven Hawking & Roger Penrose, *The Nature of Space and Time*, Princeton Science Library (Princeton, New Jersey: Princeton University Press, 1996), 34-35. Penrose's claim about low entropy is cited by and discussed further in William Lane Craig, "Design & the Cosmological Argument," in *Mere Creation: Science, Faith & Intelligent*

accuracy of $1/10^{60}$ can be compared to firing a bullet at a one-inch target on the other side of the observable universe, twenty billion light years away, and hitting the target."⁷⁹

Taking the above-described sorts of considerations into account generally, Paul Davies describes scientists as holding the view that "the laws of the universe are cunningly contrived to coax life into being against the raw odds."⁸⁰ In what does this so-called cunning contrivance consist? William Lane Craig very helpfully explains:

The delicate balance of conditions upon which life depends is characterized by the interweaving of conditions, such that life depends for its existence, not merely upon each individual condition's possessing a value within very narrow limits, but also upon ratios or interactions between values and forces which must likewise lie within narrow parameters. The situation is thus not comparable to a roulette wheel in Monte Carlo's yielding a certain winning number . . . nor even yet to all the roulette wheels (each representing a physical quantity or constant) in Monte Carlo's turning up simultaneously certain numbers within narrowly circumscribed limits (say, wheel 1 must show 72 or 73 while wheel 2 must show 27-29, etc.); rather it is like all the roulette wheels in Monte Carlo's yielding simultaneously numbers within narrowly prescribed limits and those numbers bearing certain precise relations among themselves (say, the number of wheel 3 must be one-half the square of the number of wheel 17 and twice the number of wheel 6).⁸¹

Design, edited by William A. Dembski (Downers Grove, Illinois: InterVarsity Press, 1998), 352-354.

A personal note: I readily admit (again) that I am not a scientist and I do not understand nor can explain how Penrose discerns that the entropy condition of the universe at its beginning has, relative to other entropy conditions, the value he attributes to it. My argument above, therefore, is basically an appeal to authority. According to R. H. Johnson and J. A. Blair, the conditions for a legitimate appeal to authority are the following: "1. An appeal to authority to support the claim is appropriate. 2. The source appealed to is capable of knowing if the claim is true or plausible. 3. There is broad consensus among [relevant] authorities. 4. The source appealed to is credible." (R. H. Johnson & J. A. Blair, *Logical Self-Defense*, 3rd edition [Toronto: McGraw-Hill Ryerson, 1993], 165.) It seems to me that my appeal to Penrose satisfies Johnson and Blair's conditions for a legitimate appeal to authority.

⁷⁹John Jefferson Davis, "The Design Argument, Cosmic 'Fine-tuning,' and the Anthropic Principle," *The International Journal of Philosophy of Religion* 22 (1987): 140.

⁸⁰Paul Davies, *The Fifth Miracle: The Search for the Origin and Meaning of Life* (New York: Touchstone/Simon & Schuster, 1999), 246.

⁸¹William Lane Craig, "The Teleological Argument and The Anthropic Principle," in *The Logic of Rational Theism: Exploratory Essays*, edited by William Lane Craig & Mark S. McLeod (Lewiston: The Edwin Mellen Press, 1990), 134.

Davies and Craig would have us describe the "cunning contrivance" in terms of probability. Talk of probability, however, is out of place. Some comments from Neil Manson are helpful here: "The anthropic coincidences [i.e., the fine-tuning claims] are . . . all claims about what the universe would have been like if the cosmic parameters had been slightly different. Such claims are not statements of probability (appearances to the contrary) . . ." ⁸² Rather, such claims are about "what could have been." ⁸³ Manson explains: "Consider that a certain nut would not fit onto a certain one-centimetre-wide bolt if that bolt were a millimetre wider or narrower. It does not follow that the probability of the nut's fitting the bolt is one in ten. Indeed, nothing about probability follows at all." ⁸⁴ In what, then, does the cunning contrivance consist? It is the view of this dissertation's author that the cunning contrivance of the fine-tuning has to do with factual *contingency*, with some nuances added. Factual contingency usually means that a thing can not-be. ⁸⁵ The values of the cosmic parameters are contingent in the sense that they can not-be. However, the values of these cosmic parameters are contingent too in the sense that, in their ability to not-be, the cosmic parameters could have taken on any of the many and various values other than those they actually took on -- but they took on those values that they did, with their special relationships to one another. In other words, the contingency which constitutes the "cunning contrivance" of the fine-tuning which is required for intelligent human life's existence consists of a particular set of contingent conditions, in fact, *an individually-delicately-configured set of conditions*. The contingent possibility consisting of this individually-delicately-configured set of conditions, i.e., this set consisting of a marvelously-high degree of integrated and correlated factors, will here be called the *peculiar*

⁸²Neil Manson, "Locating Design: Physical Cosmology, Molecular Biology, or Someplace In Between," paper presented at Calvin College, May 25, 2001.

⁸³This comment was made by Manson during a discussion of his paper "Fine-tuning and multiple universes," which was presented at the University of Waterloo, October 19, 2001.

⁸⁴Neil A. Manson, "There Is No Adequate Definition of 'Fine-tuned for Life'," *Inquiry* 43 (2000): 343.

⁸⁵For example, see Aquinas's third way. St. Thomas Aquinas, *Summa Theologiae*, Volume II, Blackfriars edition (London & New York: Eyre & Spottiswoode and McGraw-Hill Book Company, 1963), 1.2.3.

contingency. And this peculiar contingency obtains and calls out for explanation: *Why is this peculiar contingency instantiated instead of some other set of conditions?* In other words, although probabilities are not applicable to Manson's bolt and nut example, the *fitness* of the one-centimetre-wide bolt to its nut still calls out for explanation.

In view of the above, then, it is reasonable to think that there very much appears to be a fine-tuning -- not in terms of improbability, but in terms of a peculiar contingency -- at the beginning of the universe for the conditions of subsequent intelligent human life, and it is reasonable to wonder why this fine-tuning is the case.⁸⁶

⁸⁶As mentioned previously, the words "fine-tuning," "fine-tuned," "finely-tuned," etc. will be subsequently used as synonyms for the phrases *marvellously-high degree of integrated and correlated factors* and *peculiar contingency* and their variants. Again, it is not the intention of the author of this dissertation to use the words "fine-tuned," etc. in a question-begging way to smuggle in the notion of a tuning agent or intelligent tuner/designer. Nevertheless, the words "fine-tuned" etc. will be used because they are standard fare in the literature and because they are much less cumbersome than any phrases which attempt to remain more neutral with respect to agency.

Timothy McGrew, Lydia McGrew, and Eric Vestrup argue that because there are no upper limits to the values that are fine-tuned, resulting in infinitely many possible universes, and because "there are infinitely many possible universes that are arbitrarily similar to ours though mathematically distinct -- universes in which the constants differ from those in ours by amounts so small that the physical implications remain negligible even in the large-scale effects" -- "there is no way to establish ratios of regions in a non-normalizable [probability] space." (Timothy McGrew, Lydia McGrew & Eric Vestrup, "Probabilities and the Fine-Tuning Argument," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson [London & New York: Routledge, 2003], 202, 204.) The result, according to McGrew *et al.*, is that "there is no meaningful way in such a space to represent the claim that one sort of universe is more probable than another." (McGrew *et al.*, "Probabilities and the Fine-Tuning Argument," 204.) In other words, in a normalizable probability space the sum of the alternatives, when each is assigned some positive probability value, is one; however, if the space has infinitely many divisions, then the sum is infinite -- and so relative to an infinite space talk of ratios becomes problematic. McGrew *et al.* run into some difficulty, however. Given that (as McGrew and company's position seems to imply) Manson's nut and bolt would fit even if there were infinitely many ways to make this fit, this infinitely many would seem to be *countably* infinitely many. It seems that a matrix could be constructed which consists of the lists of the various combinations of fine-tuning values until all the possible combinations of values "arbitrarily similar" to our universe's life-permitting values are listed -- and hence are countable by the set of positive integers. But this means that another matrix could be constructed which consists of the above lists but with each of the necessary life-permitting values deleted, one at a time, in such a way that the new matrix remains countably infinite. If there are 50 individual values, then it would seem that the set of possible universes, which presumably is an uncountably infinite set, is at least 50 times as great as the set of countably infinite universes (since the above deletion could occur for each of the 50 values, thereby constructing 50 new matrices which exhaust the integers). Therefore, contrary to the conclusion of the argument presented by McGrew *et al.*, it seems that at least *some* sense can be given to

talk of ratios between infinite sets. At any rate, Manson's argument against probabilities (in the main text above) still stands, and the very apparent *fitness* of the nut and bolt still calls out for explanation.

Let us assume, though, for the sake of addressing an (other) objection from Narveson, that talk of improbability *is* appropriate (contrary to fact). According to Narveson, "The 'fine-tuning' thesis has it that, for example, the human species requires a combination of conditions whose antecedent probability (however you compute *that!*) is astronomically small, making it a cosmic accident that there are people. From this it is inferred that the existence of people must be due to divine intervention, divine fine-tuning, after all. This is perhaps the most remarkable of all of these arguments, for it evidently implies that the Deity prefers vastly improbable ways of bringing about intended results (the existence of people) to the much more plausible ones that presumably He could also have done at the drop of the divine hat. Why on earth would He behave like that?" (Narveson, "God by Design?", 99.) And so, Narveson would have us think, any appeal to an intelligent cause such as God is extremely problematic, and to be dismissed. In reply, it seems that the argument Narveson is criticizing should be looked at more closely. To begin, it should be noted that the improbability in the argument in question is a conditional epistemic probability. As Collins points out, "The conditional epistemic probability of a proposition *R* on another proposition *S* -- written as $P(R/S)$ -- can be defined as the degree to which the proposition *S* of itself should rationally lead us to expect that *R* is true." (Collins, "A Scientific Argument for the Existence of God," 74.) It should be noticed, then, that the improbability in the argument in question is a probability based on a *naturalistic* assumption, that is, the probability of fine-tuning *given that there is no transcendent intelligent cause/creator*. According to the argument in question, such a probability is (as Narveson allows for the sake of argument in spite of computational problems) astronomically small. Now, according to the argument in question, because it is extremely surprising for human life to result given no intelligent designer, the non-intelligent cause hypothesis is set aside and an appeal is made to the intelligent cause hypothesis. After all (according to intelligent cause proponents), the intelligent cause hypothesis makes the appearance of intelligent human life, which has a *prima facie* smacking of design effects (as we will see later in this chapter), *more probable* than an appeal to the non-intelligent cause hypothesis. Hence, according to the argument under criticism by Narveson, the hypothesis of an intelligent designer is to be preferred over a non-intelligent cause hypothesis of mere chance or accident. But this means, *contra* Narveson, that on the hypothesis of the Deity's existence the Deity does *not* prefer vastly improbable ways of bringing about intended results; rather, on the hypothesis of His existence, the Deity chooses to bring about the existence of people via a *plausible* way, i.e., *a way that requires divine intelligence and therefore is probable* -- and *that* is why the God hypothesis is employed. In other words, Narveson's "vastly improbable ways of bringing about intended results" are, on the God hypothesis, *not* vastly improbable, *pace* Narveson. The point is this: To criticize God's creative acts as improbable on the basis of probability judgments which require a no-God hypothesis is to put forth an irrelevant criticism. It is like objecting to the hypothesis that an intelligent human constructed, say, a radio and basing the objection on an improbability judgment which requires a non-intelligent cause hypothesis to explain the radio. (Note: Whether any question-begging occurs concerning God's intentions is beside the point here; the point here is that, given God's intentions to create people, a "given" that Narveson allows for the sake of his objection, to criticize God's creative acts as improbable on the basis of probability judgments which require a no-God hypothesis is off the mark.)

Another criticism of Narveson's objection can be set out. Narveson's thesis that it is "most remarkable" (read: illegitimate, absurd) for the Deity to employ naturalistically improbable ways of bringing about the existence of people, ways that are improbable on the non-intelligent cause hypothesis, seems to entail the thesis that "the much more plausible [ways] that presumably He could also have done at the drop of the divine hat" must be understood as *naturalistically probable* ways. But this means that Narveson's "more plausible [ways]" seem to require God to choose a way to create people which would ultimately require a no-God hypothesis as the true explanation. One immediately begins to suspect that such a task is inherently

B. Accounting for the Fine-Tuning

The question, then, is this: How do we explain this fine-tuning, that is, this peculiar contingency?

1. No explanation is needed?

It may seem reasonable to some to respond to this question by saying that no explanation is needed. Why? Because the above conditions, no matter how fine-tuned (i.e., marvelously integrated and correlated) they might be, are required to obtain if we are to be able to observe them in the first place.⁸⁷ There is an "observational selection effect" which ensures that we observe the fine-tuning that we observe. Indeed, the observations are "inevitable consequences of our own existence."⁸⁸ That is to say, it is alleged, if the fine-tuning did not occur, then we would not be here to make the observations, and so we should not be surprised that we do observe the fine-tuning, and so no explanation is needed for the fine-tuning.

Such a response is seriously problematic, however. Leslie astutely points out that holding to this

contradictory. It is as if one were asking a sculptor to "make a sculpture such that *independent of any effect you might have on it*, it will have quality Q," or asking a scientist to "conduct an experiment in which *independent of any and all influence you might have on the experiment*, it will lead to result R." (Stephen T. Davis, "A Defence of the Free Will Defence," *Religious Studies* 8 [1972]: 343; Davis's comments concern another issue, as the title of his essay suggests, but his comments seem appropriate in the present context.) In other words, Narveson seems to require God to make an X such that X is not made by God. Surely, this requirement is logically contradictory and nonsensical. Surely, too, one cannot hold God in contempt for not being able to complete such a "task" -- nor can one hold proponents of the design argument in contempt for not attributing such a "task" to God. Thus, Narveson's objection seems additionally problematic.

One more comment (on a somewhat different matter): It is the view of this dissertation's author that Davies, Collins, and Craig's assumption that the probability of fine-tuning given naturalism is small and that the probability of fine-tuning given a Creator is high stems from a prior discernment of the deep mind affinity connected to the fine-tuning, as will be argued in this chapter. (A reminder: This dissertation does not buy into the probability approach in understanding the significance of fine-tuning; hence, this discussion takes place in a footnote.)

⁸⁷Barrow & Tipler, *The Anthropic Cosmological Principle*, 1-2, 16; Stephen Jay Gould, *The Flamingo's Smile: Reflections in Natural History* (New York: Penguin Books, 1985), 183. This view is sometimes described as the Weak Anthropic Principle.

⁸⁸Barrow & Tipler, *The Anthropic Principle*, 219.

position is like noticing that you are alive after a 50-man firing squad shoots at you but misses, and then you say that you should not be surprised -- i.e., that no explanation is needed -- because their missing is obviously required for you to be alive to notice that they missed.⁸⁹ Clearly (and this is the point of Leslie's firing squad story), this line of reasoning misfires. It is true that you should not be surprised that you are not observing conditions incompatible with your being alive. Certainly, if conditions incompatible with your being alive obtain, then you should be dead. Also, it is true that the fact that you are observing yourself being alive is not surprising *given* that the firing squad missed. But the fact that the firing squad missed surely *is* surprising. The apparent (and fortunate for you) coincidence of each member of the firing squad missing you calls out for explanation. Similarly, the fact that we are not observing cosmic conditions incompatible with our being alive is not surprising. Also, the fact that we are observing the multitude of apparent coincidences which support intelligent life in the universe is not surprising *given* that these coincidences occurred. But the fact that the coincidences occurred surely is surprising -- and calls out for explanation. The observational selection effect argument, then, confuses merely pointing to a necessary condition for intelligent human life with explaining that necessary condition's occurrence.⁹⁰

⁸⁹Leslie, *Universes*, 13-14.

⁹⁰For another story/parable that does the same job as Leslie's firing squad story, see Richard Swinburne's case of the mad cardshuffling kidnapper in Richard Swinburne, *The Existence of God*, revised edition (Oxford: Clarendon Press, 1991), 137-138. Swinburne also sets out a version of Leslie's firing squad story in Richard Swinburne, "Argument from the Fine-Tuning of the Universe," in *Modern Cosmology & Philosophy*, edited by John Leslie (Amherst, New York: Prometheus Books, 1998), 171. Elliot Sober sets out a criticism of Swinburne's use of the firing squad story on the basis of the firing squad story allegedly not providing a good inference to design. Sober seems not to realize, however, that Swinburne (and Leslie) uses the firing squad story not as an attempt to infer design but merely as an attempt to expose the need for further explanation when the Weak Anthropic Principle is interpreted as putting such a need on hold. See Elliot Sober, "The Design Argument," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 46-49.

It might be pointed out that in the case of Leslie's firing squad story there is a surface disanalogy with design. In the case of the prisoner's survival the cause of the survival is the missing of the bullets, whereas in the case of the universe's existence the cause of the universe's existence is the hitting of the target. In reply, it should be noted that all analogies limp in some regard or other and, furthermore, the limping in this case is irrelevant. Again, what is relevant here is not the exemplification of design; rather, it is the exemplification of the need for further explanation. In both cases the "coincidences" call out for explanation.

2. A Case for Deep Mind Affinity

The question, again, is: How do we explain the fine-tuning at the beginning of the universe for the needed conditions for the development of subsequent intelligent human life? The contention of this dissertation is that it is reasonable to think that this fine-tuning, when coupled with the objective moral value of intelligent human life, displays a sign of intelligence -- a deep mind affinity -- and so is reasonably seen as evidence of an intelligent designer.

Consider Ratzsch's tumbleweed once again. Recall that Ratzsch's tumbleweed blowing through a lone hole in a long roadside fence works as a counterexample to the improbability of an independently specifiable event as a mark of intelligent design. But (and here I am taking my cue from Davis's previously-mentioned target analogy concerning Penrose's entropy finding), what if, as the above described fine-tuned conditions for intelligent human life seem to suggest, the length of Ratzsch's fence is the length of the universe? In this case, we could reasonably think of the tumbleweed as being, say, an arrow, and the hole in the fence as the bull's-eye of a regulation-size archery target located on the far side of the universe. Surely, it seems that we could *also* reasonably think that the achievement of this hitting the bull's-eye on the other side of the universe, that is, the obtaining of this *peculiar contingency*, is due to the *skill of an archer*. In fact, intelligent design now seems to be a more reasonable conclusion to make.

What resonates with mind here? That is, what tweaks our intuitions concerning deep mind affinity here? Some comments from Dembski are helpful: "[W]e need to understand what it is about intelligent agents that makes them detectable in the first place. The principal characteristic of intelligent agency is choice."⁹¹ That an agent is intelligent means that to achieve a purpose the agent can, as Dembski points out, "choose from a range of competing possibilities."⁹² Interestingly, the etymology of the word "intelligent" is helpful here as

⁹¹Dembski, *Intelligent Design*, 144.

⁹²William A. Dembski, "Signs of Intelligence: A Primer on the Discernment of Intelligent Design," in *Signs of Intelligence: Understanding Intelligent Design*, edited by William A. Dembski & James M. Kushiner (Grand Rapids, Michigan: Brazos Press, 2001), 188.

well. The word "intelligent" is derived from the Latin *inter* (between) and *lego* (choose or select), and so, as Dembski also points out, "according to its etymology, intelligence consists in *choosing between*."⁹³ It seems, then, that the extreme precision or exactitude of the event points to a very careful selection or choice of one alternative among very very many -- that is, a very careful selection or choice of an instantiation of a peculiar contingency. This seems to fit well with our human experience of intelligent action, since intelligent actions involve an identification of a specific goal and a selection from an identifiable class of alternative avenues of action to achieve that goal reliably and with efficiency.

But, one might object at this juncture, could not *any* particular contingent alternative -- i.e., any goal -- among many such alternatives be translated into the revised scenario of the tumbleweed falling through the hole of a very long fence, and thus be translated into the above target analogy? Could not some particular contingent universe that is not conducive to any intelligent life (human or otherwise) be thus translated? The answer, according to this possible objection, is Yes. It could be objected, then, that the tweaks of intuition regarding intelligent design arise here not from the expanded tumbleweed example *per se* but are smuggled in from the arrow-target translation of it. Indeed, one might object, by this translation manoeuvre *any* instantiation of some particular contingent alternative that is very apparently not due to intelligent design could be seen -- albeit mistakenly -- as due to intelligent design.

There is, however, a serious problem with the above objection -- a problem that, once exposed, helps the case for inferring an intelligent cause. The translation into the target analogy works only if the analog for the bull's-eye is an object that has value, either for the archer or in itself or both. In archery, what has value is the arrow's landing in the centre of the target, the bull's-eye. If the analog for the bull's-eye is not an object of value, then the translation is not appropriate. Significantly, and this is where the importance of the thesis of chapter 2 of this dissertation comes to the fore, it is reasonable to think that intelligent human life is an object of value: as was argued in chapter 2, intelligent human beings have objective moral value -- intrinsic

⁹³Dembski, "Signs of Intelligence," 188.

worth. This means that, contrary to the above objection, it is appropriate to apply the target analogy to our universe but not appropriate to apply the target analogy to a universe which lacks intelligent life.⁹⁴ So no smuggling seems to occur. In addition, this means too that it is *not* the case that by this translation manoeuvre *any* particular contingent alternative very apparently not due to intelligent design could be seen as due to intelligent design.⁹⁵

Still, it might be objected, as Narveson objects, that to infer intelligent design -- and to do so "on the basis of anything except wishful thinking on our part" -- we need independent information concerning the intentions of the alleged intelligent designer, but we very apparently lack such a motivational story.⁹⁶ We need to know, in other words, whether the bull's-eye, which has intrinsic worth, is also an object of value *for the archer*. To be sure, it must be conceded that we may not know *a priori* what the intentions of a supernatural intelligent agent are.⁹⁷ Nevertheless, it seems that we can construct a case on public evidential grounds for

⁹⁴Arguably, a universe such as ours *sans* intelligent human life still has value. However, compared to our universe which *has* intelligent human life, it is less valuable. It could be understood as an arrow which has landed in a ring near the bull's eye. Arguably, too, a universe with intelligent non-human life would have value as well. Such a universe could be understood as the bull's-eye of a different target.

⁹⁵Could God design a universe without minds that would still manifest design? It seems that the answer would be Yes. Of course, it would be impossible for us to discern that design if that universe were ours, since by definition we would not be present. However, if the mindless universe were some universe other than ours, then the design's manifestation would seem to depend on the purpose God has for that universe and how readily that universe serves that purpose. It would seem that, if God were the theistic God, then God's purpose would be one that has objective value. If we could discern that objective value, then it would seem that we could discern the design. If the designer were not the theistic God, and, say, there were no objective values, the designer's designs, though existent, would seem to be more difficult (for us) to discern. In any case, although these musings are interesting, the fact remains that in this dissertation what is of interest is the universe at hand -- a universe in which intelligent human beings exist and have objective moral value.

⁹⁶Narveson, "God by Design?", 91. Elliot Sober makes a similar objection in the case of the alleged designer of biological organisms (Elliot Sober, "Philosophy of Biology," in *The Blackwell Companion to Philosophy*, 2nd edition, edited by Nicholas Bunnin & E. P. Tsui-James, Blackwell Companions to Philosophy [Oxford: Blackwell Publishing, 2003], 333.) More on this later.

⁹⁷It is being assumed here that no direct divine revelation of these intentions occurs in any human mind. The possibility of such direct divine revelation is not being ruled out; the appeal in this dissertation is merely being limited to the public, common ground of evidence found in the extra-mental creation. If someone does in fact have such a direct divine revelation (and the authenticity and veridicality of such revelation is self-

making at least a rough yet reasonable stab at such an agent's intentions. (By "rough yet reasonable stab" I mean a conjecture that an intelligent person can choose to make and be rational in so doing; I am not purporting to make a slam-dunk, 100% conclusive case that will force everyone to agree with my conclusion.⁹⁸) How? By looking at the apparent handiwork of the alleged agent and reading the intentions off that handiwork. Such a project seems not in principle impossible; for example, in the Search for Extra Terrestrial Intelligence (SETI), researchers attempt to read off intentions from signals from outer space in the absence of a motivational story concerning the aliens.⁹⁹ And, *pace* Narveson, such a project seems that it need not be based merely on wishful thinking, as will be seen. We know on the basis of our everyday experience of agency (human agency) that, as Ratzsch points out, "Degree of care -- investment -- in structuring, generating, and maintaining, is a reasonable indication of valuing."¹⁰⁰ The sense of "valuing" with which Ratzsch is concerned here is not a valuing which gives the object its value; rather, it is a valuing which is an activity or "pursuit" (Ratzsch's word) that reflects, or is responding to, or is aimed at, the intrinsic value of the object in question. The more intensive and precise the care in structuring, generating, and maintaining X, the greater the valuing (in the aforementioned sense) of X. We also know from contemporary science that there is a very apparent and marvelously-high degree of fine-tuning -- an exquisite precision in "contriving," structuring and generating -- of the universe which allows for intelligent human life to obtain.¹⁰¹ We know

evident), then it would seem that he/she is in a much better position to discern design than the person who does not have such revelation.

⁹⁸I concur, in other words, with Robert O'Connor: "[A]ffirming design retains this central feature of intelligence: even though appeal to design is not necessary in order to account for [the phenomena in question], it constitutes an empirically informed, discriminating choice." (Robert O'Connor, "The Design Inference: Old Wine in New Wineskins," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson [London & New York: Routledge, 2003], 83.)

⁹⁹The signals may not be sent to us in an attempt to communicate with us; we may simply be picking up signals that have some other purpose.

¹⁰⁰Ratzsch, *Nature, Design, and Science*, 73.

¹⁰¹Recall that the initial conditions of the universe are astronomically complex and finely calibrated: they are not only fine-tuned individually but also fine-tuned relative to one another.

too, as was argued in chapter 2 of this dissertation, that human beings are an intrinsically valuable commodity. So it is reasonable to think that an *outcome* of the aforementioned fine-tuning, i.e., intelligent human life, has value -- objective moral value -- independent of the fine-tuning.¹⁰² In other words, we know that the bull's-eye is a value independent of where the arrow lands; that is, we are not painting the bull's-eye around some already-landed arrow. But this suggests quite strongly that it is reasonable to think that the marvelously high degree of fine-tuning of the universe seems very much to be evidence of intensive care. So, if the fine-tuning of the universe has the marks of intensive care, which is reasonable to think that it does, and if the outcome of the fine-tuning of the universe has the marks of objective moral value,¹⁰³ which is also reasonable to think that it does, then a rough yet reasonable stab can be made regarding the intention of an intelligent designer: the intelligent designer intends to instantiate or promote a particular value, namely, intelligent human life. Intelligent human life, because it has objective moral value, can quite reasonably be seen to serve as a goal for the highly integrated and correlated factors which are required for the realization of intelligent human life. It is, then, this matching of apparently intense care with the achievement of an objective moral value which provides us with a reasonable case of valuing, and valuing seems very much to be an instance of deep mind affinity. The target analogy works, in other words, because the analog for the bull's-eye is an object that has value in itself *and*, very apparently, for the archer.¹⁰⁴

¹⁰²Here, then, I differ with Dembski. Dembski thinks that it is enough to have an independently specifiable pattern that gets matched to make the inference to intelligent design. As I have argued previously, this does not preclude specified gibberish, and so lacks deep mind affinity. However, when objective moral value enters into the picture, so does deep mind affinity.

¹⁰³The objective moral value stems from the intelligent human beings; the intensive care reflects this value.

¹⁰⁴To say that the intelligent designer intends to instantiate or promote a particular value, namely, intelligent human life, is not to say that the intelligent designer intends to instantiate or promote a particular value perfectly; nor is it to deny that such perfection is a goal. Without some sort of revelation from the designer (say, via some propositions confirmed by a miracle), it seems that we simply lack the needed information to make these judgments. However, if the intelligent designer *is* a perfect being -- i.e. an all-good, all-knowing, and all-powerful God -- and did intend to instantiate or promote a particular value perfectly, and there is evidence that such instantiation or promotion does not reach the ideal, then one of the assumptions of this dissertation (as noted in the introduction) kicks in. In this dissertation it is assumed that there is no logical

3. Dealing with the Competition

Of course, it could be a mistake to interpret the fine-tuning of the universe for subsequent intelligent human life vis-à-vis the objective moral value of intelligent human life as an instance of deep mind affinity. There are alternative interpretations that do not point to a deep mind affinity, and some or all of these may handle this evidence more satisfactorily.¹⁰⁵ What seem to be the three major competing interpretations --

inconsistency in holding the aforementioned attributes of God in the face of the existence of evil. It is also assumed in this dissertation that evil's existence does not make the existence of God improbable. The upshot of these assumptions is that we can maintain our focus on explaining the instantiation or promotion of a particular value, namely, intelligent human life, without needlessly letting the philosophical problem of evil bog us down at the start. It is reasonable to think that an explanation of evil and suffering can enter into the project later, when the basic and overall picture is clearer. As in the construction of a 3-D puzzle of, say, Tolkien's Tower of Isengard (on sale recently at the Royal Ontario Museum in Toronto), a rough order of assembly is required to succeed in "solving" the puzzle: at least some of the bottom pieces must be in place before erecting the upper structure. To dismiss intelligent design because of the existence of evil is tantamount to dismissing our 3-D puzzle because the higher-up pieces do not fit lower down.

In view of the philosophical literature on these matters, it seems to the author of this dissertation that the above-mentioned assumptions are reasonable to hold -- especially in the case of biblical Christian theism, which is a worldview picture that requires evil and suffering to be a puzzle piece. Biblical Christian theism holds that the reason Christ came to earth was to help a "fallen" world, a world that is not what it morally ought to be. In the biblical Christian view, the various hypotheses that can be (and are) invoked by philosophers to deal with the very real evil and suffering in the world (e.g., the free will defence, soul development, etc.) are not to be dismissed as *ad hoc* epicycles added to save a faltering theory: these alleged epicycles are an integral part of the story to begin with -- and so to deny them is to deny the Christian worldview by misrepresenting the Christian worldview. Moreover, if evil and suffering are found in the world as predicted, then that counts in favour of the explanatory hypotheses as well as in favour of the larger Christian story.

For an example of a philosopher who dismisses (as "epicycles") the various Christian hypotheses that are used to explain the existence of evil and suffering, see Narveson, "God by Design?", 100-102. For a defence of the assumption that the existence of evil and suffering does not logically contradict nor render improbable the existence of God, see: William Alston, "Some (Temporarily) Final Thoughts on Evidential Arguments from Evil," in *The Evidential Problem of Evil*, edited by Daniel Howard-Snyder, The Indiana Series in the Philosophy of Religion, series edited by Merold Westphal (Bloomington & Indianapolis: Indiana University Press, 1996), 311-332; William Lane Craig, *Hard Questions, Real Answers* (Wheaton, Illinois: Crossway Books, 2003), chapters 4 & 5; Michael Peterson, *God and Evil: An Introduction to the Issues* (Boulder, Colorado: Westview Press, 1998); Alvin Plantinga, *God, Freedom, and Evil* (Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1977); John G. Stackhouse, Jr., *Can God Be Trusted? Faith and the Challenge of Evil* (New York & Oxford: Oxford University Press, 1998).

¹⁰⁵In other words, as Bradley Beach points out, "we need to establish whether there are any overwhelming counter-explanations which would count against intentional explanation" (Bradley Beach, "Signs of Design," unpublished paper presented at Calvin College, May 25, 2001, 20).

chance/brute fact theory, fundamental law theory, and multiple universe theories -- will now be considered. Considerable doubt will be cast onto them, thereby leaving the deep mind affinity case standing as a reasonably acceptable alternative.

(a) Competing Interpretation #1: Chance/Brute Fact Theory

The single-universe chance/brute-fact theory need not be considered at length here because it seems simply to ignore the universe's peculiar contingency which obtains by saying it "just is." Such a "just is" explanation is similar to the mistaken view (discussed above) that no explanation is needed. Also, it seems very reasonable to believe that some form of the Principle of Sufficient Reason (PSR) is true. William Wainwright sets out the following as candidates for the PSR: (1) PSR¹: For every contingent fact *F*, some other fact *F'* obtains such that, given *F'*, *F* must obtain; (2) PSR²: There is a sufficient reason for the existence of every contingent entity; (3) PSR³: Every contingent fact that requires a sufficient reason has one; and (4) PSR⁴: There is at least *some* reason for every contingent fact.¹⁰⁶ Surely, it is reasonable to believe that there is at least some reason for the peculiar contingency which obtains. This is especially true because the universe is not eternal (as we saw in chapter 3) and because the Kantian objection (that we are illegitimately projecting our conceptual scheme or categories of the understanding beyond the phenomenal realm and onto the realm of the noumena) seems very much to fail (as we also saw in chapter 3¹⁰⁷). Thus, the single-universe chance/brute-fact theory seems very much not to be a reasonable explanation.

At this juncture, physicist Victor Stenger might object that "life could be possible with many different configurations of laws and constants of physics" and so "[n]o basis exists for assuming that a random universe would not have some kind of life," which means that even on a single-universe scenario the chance explanation

¹⁰⁶William J. Wainwright, *Philosophy of Religion*, 2nd edition (Belmont, California: Wadsworth Publishing Company, 1999), 47-50.

¹⁰⁷See chapter 3, section VI ("An Objection from the Kantian *a priori* Principle of Causality").

is not ruled out as implausible.¹⁰⁸ In reply, one can point out that it is quite reasonable to believe that for a physical intelligent life form to exist, whether carbon-based or not, and regardless of the configuration of laws and constants of physics instantiated in a particular universe, a high degree of complexity and specific interrelatedness as well as much specificity in the properties of its various physical substances would still be required, which would require considerable fine-tuning. Moreover, it is quite reasonable to believe that even to have a universe obtain at all would require fine-tuning too. These points strongly suggest that the single-universe chance/brute-fact theory still seems not to be a reasonable explanation. Manson's nut and bolt analogy may be helpful here, in a somewhat revised form: Even though there may exist several other sizes of nuts which fit very well with their respective bolts, the fact that these nuts and bolts actually fit and fit very well still calls out for explanation.

(b) Competing Interpretation #2: Fundamental Law Theory

According to this competing interpretation, there is a more fundamental law which accounts for the fine-tuning of the universe, which means that it is physically necessary that the universe is the way it is -- and so no appeal to an intelligent cause is needed to aim the arrow in the direction of the target. The arrow simply *had* to hit the bull's-eye.¹⁰⁹

The fundamental law theory is seriously problematic, however. First, as Leslie points out, the plausibility of fundamental law theory is "eroded by the various physical theories . . . which show how a very varied ensemble of universes might be generated."¹¹⁰ In other words, there is no final theory which requires

¹⁰⁸Victor J. Stenger, "Natural Explanations for the Anthropic Coincidences," *Philo* 3:2 (Fall-Winter 2000), 55, 50.

¹⁰⁹This view can be subsumed under what Barrow and Tipler call the Strong Anthropic Principle, which states that "*The Universe must have those properties which allow life to develop within it at some stage in its history*" (Barrow & Tipler, *The Anthropic Cosmological Principle*, 21-22; italics in the original).

¹¹⁰Leslie, *Universes*, 202; further discussion of these theories will occur in the next section.

only our particular universe and which beats the contending physical theories that do not require our particular universe. Second, fundamental law theory lacks positive evidence. It is, as Robin Collins points out, "entirely speculative"¹¹¹; that is to say, according to Craig, "this alternative is merely an assertion,"¹¹² it is "simply put forward as a bare possibility."¹¹³ Third, the appeal to a more fundamental law relocates the puzzle of fine-tuning. That is, even if we grant the fundamental law explanation, we can ask: Why is the fundamental law the way it is?¹¹⁴ And we can ask: Why are the boundary conditions to which the fundamental law applies the way they are?¹¹⁵ In other words, as Hawking points out: "Even if there is only one possible unified theory, it is just a set of rules and equations. What is it that breathes fire into the equations and makes a universe [i.e., the peculiar contingency] for them to describe? . . . Why does the universe [the peculiar contingency] go to all the bother of existing?"¹¹⁶ Hawking then asks: "Is the unified theory so compelling that it brings about its own existence? Or does it need a creator?"¹¹⁷ Clearly, the first option is to be dismissed (because self-creation is absurd). Thus, the fine-tuning puzzle remains -- and continues to point to intelligent design.¹¹⁸

¹¹¹Robin Collins, "A Scientific Argument for the Existence of God: The Fine-Tuning Design Argument," in *Reason for the Hope Within*, edited by Michael J. Murray (Grand Rapids, Michigan/ Cambridge, U.K.: William B. Eerdmans Publishing Company, 1999), 55.

¹¹²Craig's comment is made in an interview with Lee Strobel. See Lee Strobel, *The Case for Faith* (Grand Rapids, Michigan: Zondervan, 2000), 78.

¹¹³William Lane Craig, "Design and the Anthropic Fine-Tuning of the Universe," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 166.

¹¹⁴Collins, "A Scientific Argument for the Existence of God," 55-56; Leslie, "The Meaning of Design," 59.

¹¹⁵Craig, "Design and the Anthropic Fine-Tuning of the Universe," 166. Cf. William Lane Craig, "Why I believe God exists," in *Why I Am A Christian: Leading Thinkers Explain Why They Believe*, edited by Norman L. Geisler & Paul K. Hoffman (Grand Rapids, Michigan: Baker Books, 2001), 69.

¹¹⁶Hawking, *A Brief History of Time*, 190.

¹¹⁷Hawking, *A Brief History of Time*, 190.

¹¹⁸A variant of the more fundamental law theory to account for the fine tuning of the universe is Leslie's "ethical requiredness" view. According to Leslie, "the ultimate reason for all actually existing things must lie

At this juncture, it might be objected (to the third reason, above) that if there is some fundamental law explanation, then a proper understanding of the logic of scientific explanation tells us that there is no further explanation needed, and so, contrary to what the author of this dissertation thinks, there is *no* pointing to intelligent design.¹¹⁹ The objection goes as follows. Typically in science, we explain "the occurrence of one state of affairs S_1 in terms of a previous state of affairs S_2 and some law of nature which makes states like S_2 bring about states like S_1 ."¹²⁰ And we explain lower level laws/generalizations in terms of higher level laws/generalizations of greater scope and generalization. But when we reach some Grand Fundamental Law Theory, that is, when we reach the most general laws of nature, "no wider law can explain their operation."¹²¹ In other words, at the highest level, explanation stops, period. And so there is no mystery -- there is nothing to explain.

In reply, it should be noted that, yes, the objection has some truth: there is no further explanation of *this type*, that is, of the explanation-type that appeals to law and ultimate arrangements of physical conditions;

in the eternal realm of platonic realities, and particularly in an unconditionally real ethical requirement, a requirement *which could itself necessitate* the existence of what is required" (Leslie, "The Anthropic Principle Today," 308; see too Leslie, "The Meaning of Design," 5-6 and John Leslie, *Value and Existence*, APQ Library of Philosophy, series edited by Nicholas Rescher [Oxford: Basil Blackwell, 1979]). I agree with Craig's assessment of Leslie's view when Craig writes: "I find it implausible to think that an abstract object, which does not stand in causal relations, can be the explanation for the temporal origin of the world" (William Lane Craig, "Cosmos and Creator," *Origins & Design: An Interdisciplinary Quarterly* 17:2 [Spring 1996]: 27n.). Indeed, all of our experience of abstract objects (e.g., numbers, concepts) points to abstract objects having *no* causal properties. Also, abstract objects are notoriously non-ethical. For an exposé of the ineffectual role of Platonic objects as causal influences, see Aristotle's *Metaphysics* Book I, chapter 9, in *The Basic Works of Aristotle*, edited by Richard McKeon (New York: Random House, Inc., 1941), 706-712; and for further refutation, see Aristotle, *The Nicomachean Ethics*, Book I, chapter 6, translated with an Introduction by David Ross, revised by J. L. Ackrill & J. O. Urmson (Oxford: Oxford University Press, 1986), 7-10.

¹¹⁹Thanks to William R. Abbott for bringing this objection to my attention.

¹²⁰Richard Swinburne, "Evidence for God," in *Does God Exist? A Believer and an Atheist Debate*, by Terry Miethe & Antony Flew (New York: HarperCollins Publishers, 1991), 231. Swinburne merely reports the objection; he does not subscribe to it.

¹²¹Swinburne, "Evidence for God," 232.

however, it should also be noted that this is *not* the *only* type of explanation that is available. Hawking makes this clear when he countenances the possibility of a creator who “breathes fire into the equations.”¹²² Indeed, as has been pointed out previously in this chapter, the fact is that explanations that appeal to intelligent causes are used in science *too*: e.g., archeology, psychology, forensic science, SETI. (Richard Swinburne calls this sort of explanation a *personal* explanation.¹²³) And, as has also been pointed out previously in this chapter, there is no principled way to rule out this sort of explanation (especially given the assumptions of this dissertation). So, if one does not place an *a priori* restriction on the types of explanation available, i.e., one lets the evidence speak for itself, then there very much seems to be a puzzle that calls out for an explanation -- a puzzle which continues to point to an intelligent cause.

(c) Competing Interpretation #3: Multiple Universe Theories

(i) Challenging multiple universe theories directly

According to multiple universe theories (MUTs), our universe is but one of a vast multitude of universes and so it is reasonable to think that the occurrence of the fine-tuning of our universe happened by undirected chance. Because billions and billions of arrows were shot, it is reasonable to think that no archery skill -- that is, no direction by intelligent agency -- is required for an arrow to hit the bull's-eye. Or, as Martin Rees points out, using a different (yet suitable) analogy, “the cosmos maybe has something in common with an 'off the shelf' clothes shop: if the shop has a large stock, we're not surprised to find one suit that fits. Likewise if our universe is selected from a multiverse, its seemingly designed or fine-tuned features wouldn't

¹²²Hawking, *A Brief History of Time*, 190.

¹²³Swinburne, “Evidence for God,” 232. Cf. Richard Swinburne, *Is There A God?* (Oxford & New York: Oxford University Press, 1996), 21-22. In the view of this dissertation's author, the use of the word “personal” seems *too* personal, i.e., it seems to carry an unwanted connotation of non-public subjectivity (if “non-public subjectivity” is a pleonasm, it is for emphasis' sake). Therefore, “intelligent cause” is to be preferred.

be surprising."¹²⁴

MUTs, however, are seriously problematic as competing interpretations, for the following reasons. First, MUTs lack strong positive evidence apart from the fine-tuning (which is consistent with design theory). According to Polkinghorne, "Science speaks only of one universe of our own experience. People try to trick out a 'many universe' account in sort of pseudo-scientific terms, but that is pseudo-science. It is a metaphysical guess that there might be many universes with different laws and circumstances."¹²⁵ With all due respect to Polkinghorne, it might be more accurate to say that while recognizing that experience is important and appropriate for science, metaphysical speculation is also important. Nonetheless, *sheer* metaphysical guessing is not appropriate scientifically and philosophically. Indeed, as Leslie points out, "all multiple universe theories are highly speculative and some may verge on the fantastic."¹²⁶ MUTs apparently take the sole evidence of one arrow that hit the bull's-eye as evidence for the existence of billions and trillions of arrows that missed.¹²⁷ Second, MUTs require a "generator" to bring about the various different universes (to shoot the various arrows), but such a mechanism would have to be randomizing to ensure the eventual actualization

¹²⁴Martin Rees, "Other Universes: A Scientific Perspective," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 214. For a helpful cataloguing and explanation of the various theories of multiple universes, see George Gale, "Cosmological Fecundity: Theories of Multiple Universes," in *Modern Cosmology & Philosophy*, edited by John Leslie (Amherst, New York: Prometheus Books, 1998), 195-212. Gale divides the MUTs into three groups: (1) spatial MUTs (e.g., Edward P. Tryon's vacuum fluctuation model, Andre Linde's chaotic inflationary model); (2) temporal MUTs (e.g., John A. Wheeler's oscillating big bang); and (3) other-dimensional MUTs (e.g., Hugh Everett's many-worlds interpretation of quantum physics' collapse of the wave function). Rodney Holder suggests (quite correctly, it seems) that Stephen Hawking's model of "baby" universes connected to "parent" universes at singularities should be included within Gale's third category (Rodney D. Holder, "The realization of infinitely many universes in cosmology," *Religious Studies* 37 [2001]: 344). The focus of the above critique of MUTs above will be general in nature. For a guide to further descriptions, critiques and discussions of the specific MUTs, see the penultimate paragraph (plus footnote) at the end of this section on MUTs.

¹²⁵Polkinghorne, *Serious Talk*, 6.

¹²⁶John Leslie, "The Anthropic Principle Today," in *Modern Cosmology & Philosophy*, edited by John Leslie (Amherst, New York: Prometheus Books, 1998), 307.

¹²⁷Not all do. Those MUTs that do not, have other problems. More on this later.

of the very remote possibility of our universe (the bull's-eye), which seems unlikely to be the case. Indeed, as Collins points out, it seems very much that for such a generator to ensure randomness would require fine-tuning -- i.e., a "conspiracy of factors" -- and hence suggest a designer of the generator.¹²⁸ Third, MUTs seem less simple than design theory. An appeal to one very powerful and transcendent designing mind (or even a few thousand of such minds) seems more elegant than an appeal to billions and trillions of different universes (which might contain all sorts and multitudes of minds).¹²⁹ Indeed, says Swinburne, "To postulate a trillion trillion other universes, rather than one God in order to explain the orderliness of our universe, seems the height of irrationality."¹³⁰ In other words, MUTs seem very much to violate Ockham's Razor (the principle that in explaining X, entities are not to be multiplied beyond what is needed to explain X). Fourth, the appeal to an MUT is not a natural extrapolation from our common experience. As Collins points out,

In the case of fine-tuning, we already know that minds often produce fine-tuned devices, such as Swiss watches. Postulating God -- a supermind -- as the explanation of the [universe's] fine-tuning, therefore, is a natural extrapolation from what we already observe minds to do. In contrast, it is difficult to see how the atheistic many-universes hypothesis could be considered a natural extrapolation from what we observe.¹³¹

To buttress Collins' last point, it should be noted that we also generally do not observe fine-tuned devices arising out of multiple random explosions; what we generally *do* observe, rather, is *untuned messes* coming

¹²⁸Collins, "A Scientific Argument for the Existence of God: The Fine-Tuning Design Argument," 61; and Robin Collins, "Design and the Many-Worlds Hypothesis," in *Philosophy of Religion: A Reader and Guide*, edited by William Lane Craig (Edinburgh: Edinburgh University Press, 2002), 135-137. See too: Robin Collins, "God, Design, and Fine-Tuning," in *God Matters: Readings in the Philosophy of Religion*, edited by Raymond Martin & Christopher Bernard (New York: Longman Publishers, 2003), 132-134. (For a reply to the objection that an infinite number of universes will rid us of the remoteness of the possibility of our universe's instantiation, see the subsequent discussion of Holder, above.)

¹²⁹And an appeal to one designing mind seems more elegant than an appeal to several thousand such minds.

¹³⁰Richard Swinburne, *Is There A God?* (Oxford: Oxford University Press, 1996), 68. Of course, this is to assume the logical coherence of the notion of God, which, as was noted in the introduction to this dissertation, is an assumption of this dissertation.

¹³¹Collins, "A Scientific Argument for the Existence of God: The Fine-Tuning Design Argument," 61.

out of such explosions (think of various volcanic eruptions, for examples). Fifth, the appeal to MUTs commits what Dembski calls the inflationary fallacy.¹³² According to Dembski, the inflationary fallacy is the mistake of "bolster[ing] an otherwise failing chance hypothesis by artificially inflating its probabilistic resources (i.e., the number of opportunities for the event)."¹³³ The fallacy is well illustrated by the following hypothetical example from Craig:

[A] cardplayer who gets four aces every time he deals could explain this away by saying, "there are an infinite number of universes with poker games going on in them, and therefore, in some of them someone always by chance gets four aces every time he deals, and -- lucky me! -- I just happen to be in one of those universes."¹³⁴

In other words, because we have evidence only of one fine-tuned universe and this evidence points to design, the appeal to the existence of a multitude of other universes -- universes for which we have little or no evidence -- to avoid the very apparent pointing to design seems very much to be a move that is unjustified by the evidence. Moreover, what is worse, if we accept the legitimacy of reasoning which supports MUTs, then *all* fine-tuned objects or events that are obviously due to intelligent design can be attributed to non-intelligent causes because of the hypothesized multitude of other existing universes. In other words, Craig's cardplayer example can be generalized to *all* intelligently caused actions. But this is to land us in an absurdity, because we know that all if not most fine-tuned devices or events that are obviously due to intelligent design (e.g., *Encyclopedia Britannica*, mini-van assembly plants, computers) are *in fact* due to intelligent causes.

Thus far, the arguments against MUTs have been general in nature. There are also problems that are peculiar to specific MUTs. Because these problems tend to be scientific in nature, they will merely be

¹³²Dembski, *The Design Inference*, 214-217; Dembski, *Intelligent Design*, 266-267.

¹³³Dembski, *Intelligent Design*, 266. By "chance" Dembski means undirected by an intelligent cause. In this chapter, my argument for the deep mind affinity of fine tuning evidence shows that the chance hypothesis is failing.

¹³⁴Craig, "Design and the Anthropic Fine-Tuning of the Universe," 173; cf. Craig, "Why I Believe God Exists," 72-73.

sketched here (and the reader is directed to the references at the footnote at the end of the paragraph for further details and discussion). For example, John Wheeler's oscillating universe model is problematic because it requires for the universe's re-contraction that the universe be much more dense than what observations have shown it to be in fact. Hugh Everett's many-worlds quantum mechanical model is problematic because observers are required constantly to split into multiple copies of themselves with an accompanying new world for each copy (if this is not a scientific problem, then certainly it is a metaphysical absurdity). Edward Tryon's vacuum fluctuation model logically implies an ongoing production of universes at every point of the allegedly eternal "superspace" in which our universe is said to have originated (because each point in the eternal superspace has a non-zero probability of fluctuating into a universe), but the fruit of such production -- the colliding and coalescing of universes into an infinitely-old larger universe -- is contradicted by the observational evidence. Andrei Linde's chaotic inflationary model alleges that there is a never-beginning-nor-ending inflationary production of a multitude of mini-universes ("bubbles"), but the model has been shown to require a singular beginning, which seems to require fine-tuning. What is more, the alleged background vacuum out of which the various universes fluctuate or inflate seems to require a special fine-tuning too. Lee Smolin's cosmological natural selection model suggests that universes have Big Bang beginnings which occur in black holes of other universes and spawn yet other universes which have black holes which in turn beget other universes, and so on. Random changes in the laws of physics would create different universes which inherit the variations of these laws, and a Darwinian pressure would favour universes with more black holes. Aside from being a "frank speculation" and "fantasy" (these are words used by Smolin to describe his own model), Smolin's model pushes back the explanation of the original existence of these principles which have such fruitful tendencies, thereby suggesting (also) a background of fine-tuning and design.¹³⁵

¹³⁵For further description, criticism and discussion of the specific MUTs mentioned above, see: Barrow & Tipler, *The Anthropic Principle*, chapter 7; William Lane Craig, "Naturalism and Cosmology," in *Naturalism: A Critical Analysis*, edited by William Lane Craig & J. P. Moreland (London & New York: Routledge, 2000), 215-252; William Lane Craig, "Cosmology," in *The Oxford Companion to Christian Thought*, edited by Adrian Hastings (Oxford: Oxford University Press, 2000), 136-139; Gale, "Cosmological

Moreover, against those spatial and temporal MUTs which purport to contain or generate *infinitely many* universes, there is also an important criticism from Rodney Holder. According to Holder, "only countably infinitely many universes above a given minimum size, out of a set of uncountably infinitely many possibilities, can be realized in a single space or sequence," and so, unfortunately for the MUT proponent, it follows that "we do not know what the probability is that it will contain any life-bearing universes -- certainly none are guaranteed."¹³⁶ Holder's conclusion stems from the insight (mathematical theorem) that "if the real line is divided into finite intervals of given minimum length, then there are, at most, countably infinite many such intervals."¹³⁷ Taking this real line either spatially or temporally, as in the case of regions in space (e.g., bubble universes) or divisions of time (e.g., temporally oscillating universes), and comparing the set of the countably infinite realized universes to the much, much larger set consisting of an uncountable infinity of possible universes, the former set, when compared to the latter set, is much more than infinitely smaller -- indeed, says Holder, the former set forms "a measure zero subset" of the latter.¹³⁸ And so, in the absence of the assumption that the subset of realized universes has the same proportion of fine-tuned universes as does the immensely larger set of possible universes, the appeal to multiple universes to explain the fine-tuning of our universe is not of much help. In other words (and Holder does not go so far as to make this claim), it seems that Holder's work supports Collins' thesis that the assumption of a randomizing universe-generator is needed for a vast multitude or even infinitely-many universes to ensure that the proportion of life-bearing

Fecundity: Theories of Multiple Universes," 195-212; C. J. Isham, "Creation of the Universe as a Quantum Process," in *Physics, Philosophy, and Theology: A Common Quest for Understanding*, 3rd edition, edited by Robert J. Russell, William R. Stoeger, & George V. Coyne (Vatican City State: Vatican Observatory Foundation, 1997), 375-408; Leslie, *Universes*, chapter 4; Lee Smolin, *The Life of the Cosmos* (Oxford & New York: Oxford University Press, 1997), 6; Richard Swinburne, "Argument from the Fine-Tuning of the Universe," in *Modern Cosmology & Philosophy*, edited by John Leslie (Amherst, New York: Prometheus Books, 1998), 172-179.

¹³⁶Holder, "The realization of infinitely many universes in cosmology," 347 & 348.

¹³⁷Holder, "The realization of infinitely many universes in cosmology," 345.

¹³⁸Holder, "The realization of infinitely many universes in cosmology," 345.

universes in the set of possible universes is the same as the proportion of life-bearing universes in the subset of realized universes, so that at least one life-bearing universe is instantiated. But such a generator suggests fine-tuning, which suggests design.

Therefore, it is reasonable to think that MUTs lack warrant and are otherwise seriously problematic in explaining away the apparent design. But this means that the fine-tuning puzzle remains -- and continues to point to intelligent design.

(ii) Conceding multiple universe theories for the sake of argument

More can be said about MUTs. Thus far, it has been argued that it is reasonable to think that MUTs lack warrant and are otherwise seriously problematic in various ways, and it was concluded that the fine-tuning puzzle continues to be evidence for an intelligent designer. In this section, the explanatory success of MUTs will be conceded for the sake of argument and it will be shown that it is *still* reasonable to believe that there exists a very powerful, transcendent and intelligent causal source of matter/ energy.

To begin, it should be noted that of interest here is not Collins' argument which was used above to account for the random universe generator, i.e., that its fine-tuning points to a designer, even though Collins' argument buttresses (in a sense) the thesis of this section. Rather, MUTs along with their many-universes generators will be accepted for the sake of argument (in other words, we will ignore Collins' argument for a designer as well as Holder's criticism concerning the difficulty of countably infinite universes getting us to a finely-tuned universe) and a *separate* interesting consequence arising from the existence of a vast multitude -- perhaps an infinite number -- of different universes will be examined.

Consider the following reasoning. If the MUT speculations are true, then there would be, as Gale points out, a "wide variation among possible universes."¹³⁹ Moreover, as Gale points out too, some of the

¹³⁹Gale, "Cosmological Fecundity: Theories of Multiple Universes," 209-210.

universes -- the "extremal" ones -- will have fundamental features (e.g., laws) that are "wildly divergent and idiosyncratic."¹⁴⁰ If the total number of universes were actually infinite, then the number of extremal universes would be an infinite number. (If the total number of universes were actually infinite, then the extremal universes would consist of that set which contains every, say, zillionth universe. But just as there is an actual infinity of even-numbered universes in an actually infinite set of universes, because of the one-to-one correspondence with the members of the set of natural numbers, so too the number of universes that are multiples of a zillion would amount to an actual infinite, because of their one-to-one correspondence with the members of the set of natural numbers.¹⁴¹) But even if the total number of universes were not actually infinite, according to multiple-universe theory the number of extremal universes will be huge.¹⁴² It is reasonable, then, to think that even within the extremal universes there would be a very wide range of variation and divergence of fundamental features. In view of these points, it is reasonable to think that in the extremal universes a few instances of *super exotic life* would very probably exist. In other words, when we think about life forms in the extremal universes, it is reasonable to think that, yes, *almost anything* could -- and would -- happen. But this means, surely, that it is also reasonable to think that on some universe there not only could -- but would -- exist an intelligent being (or beings) who could and would causally interact with other universes (such as ours) by intelligently designing and creating those other universes.

¹⁴⁰Gale, "Cosmological Fecundity: Theories of Multiple Universes," 209. Gale's comments have to do with the freeing up of the restriction on Everett's MUT. On Everett's MUT it seems that there will be an infinity of universes, but none of them much different than our own. However, it is reasonable to think that Gale's comments apply not only to the Everett's liberated MUT but also to all MUTs, because the MUTs require a great number of universes with much variation to beat the very slim odds of hitting on our particular universe. Also, the universes' fundamental features are divergent from each other and from those in our universe.

¹⁴¹If the number of universes is non-denumerably infinite, then there would be *at least* an actual infinite number of extremal universes.

¹⁴²For some helpful discussions on whether an extra-mathematical instantiation of an actually infinite set is possible or not, see: William Lane Craig, *The Kalam Cosmological Argument*, Library of Philosophy and Religion, series edited by John Hick (London & Basingstoke: The Macmillan Press, 1979), 65-110; William Lane Craig & Quentin Smith, *Theism, Atheism, and Big Bang Cosmology* (Oxford: Clarendon Press, 1993), 3-107.

Think about it. According to chaotic inflationary theory, there is an eternal sea -- a bubbly "froth" -- of infinitely many, variously-sized "bubbles" -- universes! -- which spawn other bubbles. Indeed, writes Trinh Xuan Thuan,

Our universe is just a tiny bubble, lost in the vastness of another bubble, a meta-universe, or super-universe, that is tens of million billion billion times larger. And that meta-universe is itself lost among a multitude of other meta-universes, all created during the inflationary era from infinitesimally small regions of space, all disconnected from one another.¹⁴³

Martin Rees concurs: "The entity traditionally called the universe -- the entire domain that astronomers study, or the aftermath of 'our' Big Bang -- would be just one small element, or atom, in an infinite and immensely varied ensemble."¹⁴⁴ Relative to other universes, then, it may well be the case that our universe *is* but a very tiny bubble. Moreover, it may well be the case that an intelligent inhabitant of one of the very-very-large, wildly-divergent idiosyncratic universes has evolved over billions of trillions of years and has constructed a "bubble-blowing" machine whereby the inhabitant has created our universe. The bubble-blowing being could appropriately be described as a very powerful, transcendent and intelligent causal source of matter/ energy. Not God as traditionally understood, but surely a God-like being.¹⁴⁵

Is this sheer silliness? Should the bubble-blower scenario simply be dismissed as outrageous? No. Consider again an important observation from Leslie. According to Leslie, "all multiple universe theories are *highly speculative* and some may verge on the *fantastic*".¹⁴⁶ In this section it has simply been assumed, for the sake of argument, that the highly-speculative-verging-on-fantastic realm of explanation *is rationally*

¹⁴³Trinh Xuan Thuan, *The Secret Melody and Man Created the Universe*, translated by Storm Dunlop (New York & Oxford: Oxford University Press, 1995), 122.

¹⁴⁴Martin Rees, *Our Cosmic Habitat* (Princeton, New Jersey: Princeton University Press, 2001), xvii.

¹⁴⁵The science-fiction writer Robert J. Sawyer conceives of a somewhat similar God in an oscillating universe scenario. Sawyer's God merely influences the parameters of the next oscillation, making the new universe life-permitting. See Robert J. Sawyer, *Calculating God* (New York: Tor Books, 2000), 93.

¹⁴⁶Leslie, "The Anthropic Principle Today," 307; italics added for emphasis.

acceptable. But this means that the highly-speculative-verging-on-fantastic bubble-blower scenario is, on this assumption, rationally acceptable *too*.

Also (and contrary to initial impressions), the bubble-blower scenario is not such a far-fetched idea given the quite impressive technological accomplishments that human beings have developed over only a comparatively *minuscule* evolutionary history (that is, compared to the evolutionary histories of the larger "bubbles"). It is reasonable to think that with *trillions more* years of technological advancement *we* will be able to blow bubbles (assuming that we do not blow ourselves up first): indeed, according to Rees, even contemporary scientists "have even conjectured that universes could be made in the laboratory by imploding a lump of material to make a small blackhole."¹⁴⁷ And, given the thesis of chapter 2 -- that intelligent human beings have objective moral value -- it is reasonable to think that super-evolved intelligent beings could have a reason for blowing bubbles such as ours.

What is more, the bubble-blower scenario seems very much to gain additional rational merit points because the positing of the bubble blower may solve some scientific and metaphysical problems. For example, the existence of the bubble blower could explain the wave function collapse which, if there are some quantum mechanical aspects to universe formation, may be required for the inception of our universe. On the generally-accepted Copenhagen interpretation of quantum physics, at the collapse of the wave function, a collapse due to the measurer's instruments or observations, the reality of the quantum "entity" that is represented by the wave function comes into being. But, as Craig astutely observes,

on the traditional Copenhagen interpretation, the inevitable question cannot be suppressed: who or what collapses the wave function *of the universe*? Since all spatiotemporal observers are contained in the universe itself, the answer can only be: an observer who transcends space and time and who brings the universe into being by His reduction of its wave function.¹⁴⁸

¹⁴⁷Rees, "Other Universes: A Scientific Perspective," 217.

¹⁴⁸William Lane Craig, "Theism and Physical Cosmology," in *A Companion to Philosophy of Religion*, edited by Philip L. Quinn & Charles Taliaferro, Blackwell Companions to Philosophy (Oxford: Blackwell Publishers, 1997), 425; italics added.

Craig has the theistic God in mind here, but it seems that the transcendent observer could instead be our bubble blower.

Also, the hypothesis of the bubble blower gains further rational merit points because it could explain too the origin of life, which is difficult to explain without an appeal to an intelligent cause. That the origin of life is difficult to explain without an appeal to an intelligent cause can be seen from the comments of several leading origin-of-life scientists which will be presented in section IV.A.2 of this chapter. The bubble blower could set up the initial conditions of the universe so life eventually emerges from non-living materials and evolves into our vast proliferation of living plants and animals (i.e., all design is front-loaded, so to speak); or the bubble blower could set up the initial conditions to produce life's building blocks plus provide a life-friendly environment and then later, when appropriate, say, after the carbon from stars has been formed, intervene in our bubble (via wormholes perhaps¹⁴⁹) to put the building blocks of life together in, say, the Cambrian explosion (i.e., some design is front-loaded and some is loaded into the system later; like a clay pot whose handles are added later, after the pot's sides are molded into shape on the potter's wheel).¹⁵⁰

Thus, even if we concede MUTs for the sake of argument, the evidence of our universe's fine-tuning

¹⁴⁹According to Stephen Hawking, a wormhole is a "thin tube of space-time connecting distant regions of the universe" which "might also link to parallel or baby [i.e., tiny bubble] universes" (Stephen W. Hawking, *A Brief History of Time: The Updated and Expanded Tenth Anniversary Edition* [New York: Bantam Books, 1996], 204). See too "Wormholes," in *The Routledge Critical Dictionary of The New Cosmology*, edited by Peter Coles (New York: Routledge, 1999), 361-362.

¹⁵⁰At this juncture, one might ask: In what sense, then, is the universe fine-tuned for life if life's origin is hard to explain naturalistically, without an appeal to an intervening intelligent cause -- i.e., in terms of the initial conditions and laws of the "bubble," without appealing to an intelligent cause's later intervention? (Neil Manson presented a version of the above question in his paper "Locating Design: Physical Cosmology, Molecular Biology, or Someplace In Between?", presented at Calvin College, May 25, 2001. Manson's question did not occur in a context in which the bubble blower was discussed but in a broader discussion of fine-tuning, as a hurdle for fine-tuning arguments in general.) The answer seems to be (as alluded to in the main text above) that the fine-tuning would consist in the following: (1) the universe being able to provide life's special material building blocks (whose subsequent assembly into a life form requires intelligent intervention); and (2) the universe being able to provide a home that can sustain and facilitate the further development of the desired life form after it has been assembled. These two conditions still call out for an explanation in terms of an intelligent cause.

continues to provide evidence for an intelligent designer -- if not God Almighty, then at least a God-like being.

4. Sub-Conclusion

In view of the above, it is reasonable to think that the contemporary scientific finding that there very much appears to be a fine-tuning at the beginning of the universe for the conditions needed for the development/ creation of intelligent human life, when supplemented with the thesis from chapter 2 (that it is reasonable to believe that intelligent human beings have objective moral value), constitutes evidence for a sign of intelligence in the causation of the universe.

V. Small-Scale Design: Molecular Machinery and Codes

In this section, it will be argued that the following two clues from contemporary science when coupled with the thesis of chapter 2 also constitute evidence for signs of intelligence: (1) the complex biochemical molecular machines that constitute the living cell; and (2) the language/code in DNA. In each case the relevant evidence will be looked at briefly, arguments for deep mind affinity will be set out, and objections will be addressed.

A. Complex Biochemical Molecular Machines

1. Evidence for Complex Biochemical Molecular Machines

Although the scientific community is in conflict over whether or not the complex biochemical molecular assemblies which constitute the living cell display evidence of an intelligent cause -- in fact, only a minority of scientists hold to the intelligent cause view -- that the living cell is in fact constituted by complex

biochemical molecular assemblies reasonably describable as "machines" is pretty much established by the scientific community.¹⁵¹ The scientific evidence in support of this claim is strong, in fact, so strong that the scientific journal *Cell* dedicated a special issue in 1998 to "Macromolecular Machines."¹⁵² Because the list of these complex biochemical molecular machines is lengthy and grows as scientists continue their investigations, no attempt will be made here to list them exhaustively. And because these machines are sometimes complex in the extreme, also no attempt will be made here to describe them in detail. Rather, some scientific evidence of a general sort will be presented, a few examples that are of interest will be pointed to, and the reader will be referred to footnotes for further detail.

Scientific evidence of a general sort to support the claim that the living cell is constituted by complex biochemical molecular assemblies reasonably describable as "machines" comes from the above-mentioned issue of *Cell*. The first article in this issue is by Bruce Alberts, the President of the U.S. National Academy of Sciences.¹⁵³ Alberts' article is titled "The Cell as a Collection of Protein Machines," and in it he speaks to -- and on behalf of -- the contemporary scientific community. According to Alberts,

We have always underestimated cells. . . . [T]he entire cell can be viewed as a factory that contains an elaborate network of interlocking assembly lines, each of which is composed of a set of large protein machines. . . . Why do we call the large protein assemblies that underlie cell function protein *machines*? Precisely because, like the machines invented by humans to deal efficiently with the macroscopic world, these protein assemblies contain highly

¹⁵¹Once again, it should be noted that to call something "established by the scientific community" is to admit corrigibility and tentativeness concerning that something, especially since scientific consensus can change drastically and quickly due to new discoveries. Nevertheless, it is reasonable to look at the philosophical significance of the present, albeit possibly transitory, findings delivered by science.

It should be noted here too that later in this section, when some findings from the biochemist Michael Behe are examined vis-à-vis the debate about whether or not the cell's molecular machines point to an intelligent cause, references will be made (1) to the work of several important scientists who strongly disagree and (2) to responses (from Behe).

¹⁵²*Cell* 92 (February 6, 1998).

¹⁵³Alberts is also a Professor in the Department of Biochemistry and Biophysics at the University of California, San Francisco.

coordinated moving parts.¹⁵⁴

Alberts' comments constitute good grounds (i.e., a non-fallacious argument from authority¹⁵⁵) for thinking that contemporary science does show us that the living cell is constituted by complex biochemical molecular assemblies that can be described reasonably as *machines*.¹⁵⁶

A few specific examples of these machines are the following (and the reader is referred to the footnote for further detail and substantiation): the biomolecular systems which operate in vision, clotting (the blood coagulation cascade), transport (the cilium, the bacterial flagellum), and disease fighting.¹⁵⁷

2. Accounting for the Machines

(a) A Case for Deep Mind Affinity

The case for deep mind affinity basically rescues elements of William Paley's famous argument from

¹⁵⁴Bruce Alberts, "The Cell as a Collection of Protein Machines: Preparing the Next Generation of Molecular Biologists," *Cell* 92 (February 6, 1998): 291.

¹⁵⁵For good discussions of the argument from authority and its accompanying fallacy, see: Johnson & Blair, *Logical Self-Defense*, 163-173; and Trudy Govier, *A Practical Study of Argument*, 5th edition (Belmont, California: Wadsworth Publishing Company, 2001), 149-152, 171, 438-439.

¹⁵⁶Whether this description is merely an explanatory analogy to help guide research, as David Depew holds, or a literal description which also is an explanatory analogy, as is the view of this dissertation, will be seen. See David Depew, "Intelligent Design and Irreducible Complexity: A Rejoinder," *Rhetoric & Public Affairs* 1:4 (1998): 571-578.

¹⁵⁷See Behe, *Darwin's Black Box*. See too the previously mentioned issue of *Cell*. And see: James A. Spudich, "How Molecular Motors Work," *Nature* 372 (1994): 515-518; R. A. Cross, "A Protein-Making Motor Protein," *Nature* 385 (1997): 18-19; Cindy Voisine et al., "The Protein Import Motor of Mitochondria," *Cell* 97 (1999): 565-574; Michael J. Welsh, Andrew D. Robertson, and Lynda S. Ostedgaard, "The ABC of a Versatile Engine," *Nature* 396 (1998): 623-624; C. Wu, "Molecular Motors Spin Slowly But Surely," *Science News* 156 (1999); Steven M. Block, "Real Engines of Creation," *Nature* 386 (1997). According to Block, "Some enzyme complexes function literally as machines, and come equipped with springs, levers and even rotary joints" (Block, "Real Engines of Creation," 217). For a helpful and readable summary for the non-scientist of various molecular motors and for further references in the scientific literature, see Fazale Rana & Micah Lott, "Hume vs. Paley: These 'Motors' Settle the Debate," *Facts for Faith* 2 (2000): 34-39.

analogy (the argument wherein Paley compares various organisms or parts thereof, e.g., the human eye, to a watch found in a heath, finds a resemblance between them, and infers a designer); but the case here is based on the contemporary science of biochemistry rather than the less sophisticated science of Paley's day.¹⁵⁸ Along Paleyan lines, then, it will be argued that the protein assemblies mentioned above are analogous in relevant respects to human-made machines (like Paley's watch), and so it is reasonable to infer that as human-made machines are designed (as watches are designed), so too are the protein assemblies.¹⁵⁹ Three questions need to be addressed: (1) In what does the analogy or resemblance between protein assemblies and human-made machines consist? (2) Is this feature *relevant* to the question of whether the assemblies arose from intelligent design? (3) Is this feature *sufficient* for reasonably inferring intelligent design?¹⁶⁰

Question 1: In what does the analogy or resemblance between protein assemblies and human-made machines consist? Answer: The resemblance between protein assemblies and human-made machines resides in the fact that they both are *teleological systems*. What is a teleological system? For some clues to the answer, consider Paley's description of his watch found in the heath:

[W]hen we come to inspect the watch, we perceive . . . that its several parts are framed and put together for a purpose, *e.g.* that they are so formed and adjusted as to produce motion, and that motion so regulated as to point out the hour of the day; that if the different parts had been differently shaped from what they are, or placed after any other manner or in any other order than that in which they are placed, either no motion at all would have been carried on in the machine, or none which would have answered the use that is now served by it.¹⁶¹

¹⁵⁸William Paley, *Natural Theology* (New York: American Tract Society, [1802]).

¹⁵⁹It should be noted that Alberts, like Dawkins, holds that the design is merely apparent -- not actual -- because it can be explained in terms of neo-Darwinian evolutionary theory. It will be argued that such explaining does not explain away design.

¹⁶⁰The first two questions are explicitly asked by William L. Rowe, *Philosophy of Religion: An Introduction*, 3rd edition (Belmont, California: Wadsworth/ Thomson Learning, 2001), 46-49. The third question is implicit in Rowe's work. In answering these three questions, a case will be made for intelligent design. In a strong argument, it is not enough merely to have *relevant* grounds for a conclusion; the grounds should also provide *sufficient* support for the conclusion.

¹⁶¹Paley, *Natural Theology*, 9-10.

In other words, as William Rowe points out, "A teleological system . . . is any system of parts in which the parts are so arranged that under proper conditions they work together to serve a certain purpose."¹⁶² Significantly, the protein assemblies discovered by contemporary science are teleological systems too, because, as Alberts has pointed out, these protein assemblies contain "highly coordinated moving parts," that is, they contain parts coordinated to some end.¹⁶³ In addition, Elliot Sober points out that the biological organisms consisting of the protein assemblies are "intricate and well adapted."¹⁶⁴ Moreover, says Sober, "Their complexity is not a jumble of uncoordinated parts; rather, when we examine the parts with the utmost care, we discern how the different parts contribute to the well-functioning of the organism as a whole."¹⁶⁵ In addition, as George Williams points out, "Any biological mechanism produces at least one effect that can properly be called its goal: vision for the eye or reproduction and dispersal for the apple."¹⁶⁶ The protein assemblies referred to above, then, consist of complex and highly-coordinated systems of parts which contribute to the well-functioning of the cell, whose well-functioning in turn contributes to the well-functioning (survival, replication) of the larger organism of which the cell is a part. In other words, the biological process is apparently not simply a purposeless process; it can reasonably be seen as an activity directed towards a particular end. Significantly, this activity directed towards a particular end -- this purposiveness -- is even more clearly seen in the case of those larger organisms that are intelligent human

¹⁶²Rowe, *Philosophy of Religion*, 47.

¹⁶³According to Blackburn, "Teleology free of implications [having to do with the purpose of a designer] is sometimes called teleonomy" (Blackburn, *The Oxford Dictionary of Philosophy*, 374). It might therefore seem more apt to describe the above systems, which I call *teleological*, as *teleonomic*. This, however, would beg the question, since such a description assumes as established that which is at issue. Whether the systems have implications having to do with the purpose of a designer is what we are attempting to determine. The question at this stage of the argument is an open question.

¹⁶⁴Elliot Sober, *Philosophy of Biology*, 2nd edition, Dimensions of Philosophy Series, series edited by Norman Daniels & Keith Lehrer (Boulder, Colorado: Westview Press, 2000), 31.

¹⁶⁵Sober, *Philosophy of Biology*, 31.

¹⁶⁶George C. Williams, *Adaptation and Natural Selection: A Critique of Some Current Evolutionary Thought*, 2nd edition (Princeton, New Jersey: Princeton University Press, 1992), 8.

beings. In the case of intelligent human beings the particular end of the cells and their protein assemblies is not merely an organism but an organism that has, as was argued in chapter 2 of this dissertation, objective moral value. If a process is a means to the instantiation of that which has objective value, then that process seems very much more to be goal-oriented; it cannot be readily dismissed as a *mere* process.¹⁶⁷

So there is a resemblance between protein assemblies and human-made machines: they are both teleological systems. Question 2 now needs to be addressed.

Question 2: Is the shared feature, that they are both teleological systems, *relevant* to the question of whether the assemblies arose from intelligent design?¹⁶⁸ The answer seems very much to be Yes. Intelligent agents act intentionally, that is, their acts are goal-directed. Also, as Ratzsch points out, "Agents . . . construct things that function -- things that produce intended results, things representing solutions to problems, things adjusted to specific ends."¹⁶⁹ Adds Ratzsch: "Intentions, solutions, adjustments, and the like, are all indications of mind correlativity [i.e., deep mind affinity]."¹⁷⁰ As we have seen, as engineering professor and biomechanics researcher Neil Broom points out, "The living state [constituted by its complex molecular machines] is unquestionably task-oriented."¹⁷¹ In other words -- Thomas Aquinas's -- "we see that certain

¹⁶⁷It should be noted that whereas Alberts sees the functional complexity of cells as analogous to human-made machines, Sober does not. A little bit later in this section Sober's reasons will be examined and found wanting.

It should be noted here too that it may be the case that organisms other than intelligent human life (e.g., dolphins) have objective moral value. This should not weaken the above argument for purposiveness. Indeed, the above argument would be strengthened by it.

¹⁶⁸The question here has to do with relevancy only, not sufficiency. Sufficiency will be addressed next, when question 3 is answered.

¹⁶⁹Ratzsch, *Nature, Design, and Science*, 73.

¹⁷⁰Ratzsch, *Nature, Design, and Science*, 73.

¹⁷¹Neil Broom, *How Blind Is the Watchmaker? Nature's Design & the Limits of Naturalistic Science* (Downers Grove, Illinois: InterVarsity Press, 2001), 69.

things that lack knowledge, namely, natural material substances, act for the sake of an end."¹⁷² These observations from Broom and Aquinas are especially applicable in the case wherein that which has objective moral value -- i.e., intelligent human life -- is instantiated by the activity of the parts of intelligent human beings. But these observations from Broom and Aquinas very strongly suggest that the constituents of living matter -- i.e., molecular machines -- very apparently bear an imprint of deep mind affinity. To be sure, as Sober points out via rhetorical question: "What do we know about the desires and abilities of the putative designer of organisms?"¹⁷³ (Sober's answer: Not a whole lot.) Nevertheless, even the likes of Richard Dawkins, who is no friend whatsoever of intelligent design theory, belies a recognition of the deep mind affinity in nature's machinery when he describes biology as "the study of complicated things that give the appearance of having been designed for a purpose."¹⁷⁴ Leslie concurs: "Living beings certainly *look as if* they were designed by somebody."¹⁷⁵ Moreover, even Charles Darwin quite frankly admitted that "[seeing purposeful contrivances in nature as an effect of Mind] often comes over me with overwhelming force."¹⁷⁶ Also, Francis Crick writes: "Biologists must constantly keep in mind that what they see was not designed, but

¹⁷²St. Thomas Aquinas, *Summa Theologiae*, Book 1, Question 2, Article 3, in *God and Creation: St. Thomas Aquinas*, translated and with an Introduction by William P. Baumgarth & Richard J. Regan (Scranton: University of Scranton Press/ London & Toronto: Associated University Press, 1994), 43. "But," Aquinas adds, "things that lack knowledge, do not strive for goals unless a being with knowledge and intelligence directs them, as, for example, an archer aims an arrow." *Pace* Aquinas, a designing intelligence is not immediately being inferred above; rather, an argument from analogy is being set out.

¹⁷³Sober, "Philosophy of Biology," 333.

¹⁷⁴Dawkins, *The Blind Watchmaker*, 1. As noted earlier, Dawkins thinks the deep mind affinity is *only* apparent because he believes that neo-Darwinian evolution explains deep mind affinity away in terms of non-intelligent causes. More on this later.

¹⁷⁵Leslie, "The Meaning of Design," 57. Leslie allows that neo-Darwinian evolution can explain this apparent design. More on this later.

¹⁷⁶This comment by Darwin is recollected by the Duke of Argyll (George Douglas Campbell, 8th Duke of Argyll, "What is science?" *Good Words* [April, 1885]: 244; cited in Del Ratzsch, "Perceiving Design," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson [London & New York: Routledge, 2003], 124). Argyll reports that Darwin (1809-1882) made the comment a year before his death.

rather evolved."¹⁷⁷ Commenting on Crick's remark, Nancy Pearcey and Charles Thaxton observe that "[Crick's] words sound almost as though Crick has to persuade himself -- *against* the most natural reading of the evidence -- that life really is a result of natural [non-intelligent] causes alone."¹⁷⁸ It is surely reasonable to believe, then, that a biological system's functionality which is achieved by a specifically-coordinated conspiring complexity gives the appearance of -- i.e., points to -- deep mind affinity, even if we do not have a motivational story of the intelligent designer. Thus, the resemblance between protein assemblies and human-made machines -- they are both teleological systems -- is relevant to the question of whether the assemblies arose from design. Moreover, this resemblance points clearly in the direction of design.

At this juncture, it should be pointed out that Sober, following Hume, does not think that human-made machines (such as watches) and nature's organisms (consisting of networks of protein assemblies) are relevantly similar. According to Sober,

A moment's reflection shows that they are very *dissimilar*. Watches are made of glass and metal; they do not breathe, grow, excrete, metabolize, or reproduce. The list could go on and on. Indeed, it is hard to think of two things that are more *dissimilar* than an organism and a watch.¹⁷⁹

Sober adds:

The immediate consequence, of course, is that the design argument is a very weak analogy argument. It is preposterous to infer that organisms have a given property simply because watches happen to have it.¹⁸⁰

Sober's argument fails for three reasons. First, Sober neglects the fact that in an argument from analogy the

¹⁷⁷Francis Crick, *What Mad Pursuit* (New York: Basic Books, 1988), 138.

¹⁷⁸Nancy R. Pearcey & Charles B. Thaxton, *The Soul of Science: Christian Faith and Natural Philosophy* (Wheaton, Illinois: Crossway Books, 1994), 245.

¹⁷⁹Sober, *Philosophy of Biology*, 35.

¹⁸⁰Sober, *Philosophy of Biology*, 35.

issue has to do with *relevant* similarities and *relevant* dissimilarities; citing *mere* dissimilarities is not enough to weaken an argument from analogy.¹⁸¹ Second, Sober neglects the fact that it is reasonable to think that the similarity between protein assemblies and human-made machines -- i.e., the fact that they are both teleological systems -- is a relevant similarity, as has been argued above. Third, Sober neglects the fact that there exist designed organisms (e.g., genetically modified foods) which have the relevant similarity and are caused by intelligent agents. Fourth, Sober neglects the fact that even *the physical make-up* of some of nature's systems very strongly bears a close resemblance to human-made machines. Consider, for example, Behe's description of the bacterial flagellum:

The flagellum is quite literally an outboard motor that some bacteria use to swim. It is a rotary device which, like a motorboat, turns a propeller to push against liquid, moving the bacterium forward in the process. It consists of a number of parts, including a long tail that acts as a propeller, the hook region which attaches the propeller to the drive shaft, the motor which uses a flow of acid from the outside of the bacterium to the inside to power the turning, a stator which keeps the structure stationary in the plane of the membrane while the propeller turns, and bushing material to allow the drive shaft to poke up through the bacterial membrane.¹⁸²

Consider too Davies' description of the living cell:

Each cell is packed with tiny structures that might have come straight from an engineer's manual. Minuscule tweezers, scissors, pumps, motors, levers, valves, pipes, chains, and even vehicles abound. But of course the cell is more than just a bag of gadgets. The various components fit together to form a smoothly functioning whole, like an elaborate factory production line.¹⁸³

¹⁸¹For more on arguing from analogy, see: Govier, *A Practical Study of Argument*, 350-391, 441; and John Burbidge, *Within Reason: A Guide to Non-Deductive Reasoning* (Peterborough, Ontario: Broadview Press, 1990), 1-40.

¹⁸²Michael J. Behe, "The Modern Intelligent Design Hypothesis: Breaking Rules," *Philosophia Christi* 2:3:1 (2001): 168.

¹⁸³Davies, *The 5th Miracle*, 97-98. See too Rana & Lott, "Hume vs. Paley: These 'Motors' Settle the Debate," 34-39, for some additional comparisons between molecular motors and human-made machines, comparisons which involve engine blocks, drive shafts, pistons, swinging lever arms, and swivel hinges.

For a literally *visual* look at Behe's flagellum, see the photocopy of Behe's flagellum in the Appendix

Sober's argument, then, *is* a failure.¹⁸⁴

As was mentioned, Sober is following Hume in criticizing the analogical argument for design, so some comments concerning Hume are appropriate here. Hume too thought that the analogs are simply too different for the analogical argument to work, because the world and its contents are clearly -- to Hume's eyes -- not at all similar to watches and other humanly contrived things. According to Hume, "The world plainly resembles more an animal or a vegetable, than it does a watch or a knitting-loom."¹⁸⁵ Adds Hume: "The cause, therefore, of the world [its contents], we may infer to be something similar or analogous to generation or vegetation."¹⁸⁶ But, as Behe astutely observes:

of this dissertation. Also, see the video *Opening Darwin's Black Box: An Interview with Dr. Michael Behe*, Princeton Video Series (New Port Richey, Florida: The C. S. Lewis Society, Trinity College of Florida, and The Christian Network, no date). And for a literally *visual* look at various other factory- and machine-like goings-on in the cell, see Christian Sardet (a research director of the Centre National de la Recherche Scientifique, France), Laurent Larssonneur & Andreas Koch's video *Voyage Inside the Cell* (Paris, France: Digital Studio, 2000). It very much seems that in *viewing* the computer-generated images of the molecular machines in these videos, one can apprehend their purposive order and their other similarities to human-made machines much more clearly than by mere verbal description. In these cases, the adage "a picture is worth a thousand words" seems quite appropriate. In other words, it seems that in looking at nature's intricate machinery we are presented with a "visual argument" for design. Visual argument, then, seems highly relevant to the philosophy of religion. In an important sense, a visual argument may have greater probabitive force since, in some cases at least, its contents may be discerned more adequately by taking a look than by merely reading a written version of it. Think of a verbal argument in defence of the beauty of a Renoir painting compared to a visual argument in which the painting is actually viewed. As interesting as these musings may be, further investigation of this topic will be considered beyond the scope of the dissertation. For a discussion of "visual argument" in art, photography and advertising, see Leo Groarke, "Logic, Art and Argument," *Informal Logic* 18:2&3 (Summer & Fall 1996): 105-129.

¹⁸⁴To be fair to Sober, Sober thinks that the Paleyan design argument is actually an argument to a best explanation (wherein likelihoods of competing hypotheses are compared) and that Paley's watch analogy is merely illustrative. (Cf. Sober, *Philosophy of Biology*, 30-33; Sober, "The Design Argument," 27-54.) Still, Sober's criticisms of the argument from analogy fail (as has been shown above). Also, Sober's view that Darwinian evolutionary theory is a better explanatory alternative than the Paleyan design hypothesis is seriously problematic, as will be shown in the next section of this chapter.

¹⁸⁵David Hume, *Dialogues Concerning Natural Religion* (1779), in David Hume, *Writings on Religion*, edited by Antony Flew (La Salle, Illinois: Open Court, 1992), 238. The above quote comes from Part 7 of Hume's *Dialogues*; see too Part 2.

¹⁸⁶Hume, *Dialogues*, 238.

Hume's criticism of the design argument that asserts a fundamental difference between [human-made] mechanical systems and [non-human-made] living systems is out of date, destroyed by the advance of science which has discovered the *machinery* of life.¹⁸⁷

Significantly, contemporary science shows us that living animals and vegetables are *constituted* by molecular *machines*, and so we may infer the cause of these machines to be something similar or analogous not to "generation" or "vegetation" but to intelligence or mind, which is foundational or prior to generation and vegetation. So Hume's objection fails as well.

Thus, *pace* Sober and Hume, it is reasonable to think that human-made machines (such as watches) and organisms (consisting of networks of protein assemblies) are relevantly similar.

Question 3: Does this similarity constitute *sufficient grounds* for reasonably inferring intelligent design? The answer depends on how well non-intelligent causal explanations can explain away the very apparent design. In view of the deep mind affinity of the evidence we have examined, if the non-intelligent causal explanations are seriously problematic, then the design explanation is reasonable to hold.

(b) Dealing with the Competition

For many in the contemporary scientific community, the deep mind affinity which the molecular machines very apparently display is explained away via neo-Darwinian evolution.¹⁸⁸ According to evolutionary biologist Francisco Ayala, "It was Darwin's greatest accomplishment to show that the directive

¹⁸⁷Behe, *Darwin's Black Box*, 218; my italics to emphasize that Behe understands "machinery" literally.

¹⁸⁸Neo-Darwinian evolution is the view that evolution's central mechanism involves natural selection working on genetic mutation. Environmental pressures "select" those organisms which adapt best to their environment -- i.e., they survive and reproduce -- and their progeny inherit those genes most helpful for survival and reproduction, genes which sometimes accidentally mutate (through, say, copying errors), thereby producing features in the organism which, if again "selected" by nature, promote the organism's evolutionary development and complexity even further. See Dawkins, *The Blind Watchmaker*, chapter 3.

organization of living beings can be explained as the result of a natural process, natural selection, without any need to resort to a Creator or other external agent."¹⁸⁹ Significantly, however, the view that neo-Darwinian evolution successfully explains the *origin* of highly complex molecular machines, though a view held by many contemporary scientists, is *not* substantiated by the relevant contemporary *science*. As Behe correctly points out (to the shock of many),

Molecular evolution is not based on scientific authority. There is no publication in the scientific literature -- in prestigious journals, specialty journals, or books -- that describes how molecular evolution of any real, complex, biochemical system either did occur or even might have occurred. There are assertions that such evolution occurred, but absolutely none are supported by pertinent experiments or calculations.¹⁹⁰

Behe's observation is substantiated by other credible and respected scientists. For example, in a review of Behe's work, microbiologist James Shapiro (who is not sympathetic to the idea of intelligent design) writes:

In fact, there are no detailed Darwinian accounts for the evolution of any fundamental biochemical or cellular system, only a variety of wishful speculations. It is remarkable that Darwinism is accepted as a satisfactory explanation for such a vast subject -- evolution -- with so little rigorous examination of how well its basic theses work in illuminating specific instances of biological adaptation or diversity.¹⁹¹

Also, evolutionary biologist Jerry Coyne (who is also not sympathetic to the idea of intelligent design) writes:

"There is no doubt that the pathways described by Behe are dauntingly complex, and their evolution will be hard to unravel. . . . We may forever be unable to envisage the first protopathways"¹⁹² Also, biochemist

¹⁸⁹Francisco J. Ayala, "Darwin's Revolution," in *Creative Evolution?!*, edited by John H. Campbell & J. W. Schopf (Boston: Jones & Bartlett, 1994), 4.

¹⁹⁰Behe, *Darwin's Black Box*, 185.

¹⁹¹James A. Shapiro, "In the Details . . . What?" *National Review*, September 16, 1996, 64; the same point is also made in James A. Shapiro, "Genome System Architecture and Natural Genetic Engineering in Evolution," *Annals of the New York Academy of Sciences* 870 (May 18, 1999): 23-35, see especially p. 31.

¹⁹²Jerry A. Coyne, "God in the Details," *Nature* 383 (1996): 227-228.

Franklin Harold (who is also not sympathetic to the idea of intelligent design) writes: "[W]e must concede that there are presently no detailed Darwinian accounts of the evolution of any biochemical system, only a variety of wishful speculations."¹⁹³ To buttress Behe's position even further, the following comments from philosopher David Griffin are helpful (Griffin is also not sympathetic to the idea of intelligent design but has investigated Behe's claim that molecular evolution is not based on scientific authority, since, according to Behe, there is no publication in the scientific literature that describes how molecular evolution of any real, complex, biochemical system either did occur or even might have occurred):

The response I have received from repeating Behe's claim about the evolutionary literature -- which simply brings out the point being made implicitly by many others, such as [Francis] Crick, [Michael] Denton, [Robert] Shapiro, Stanley, Taylor, and Wesson -- is that I obviously have not read the right books. There are, I am assured, evolutionists who have described how the transitions in question could have occurred. When I ask in which books I can find these discussions, however, I either get no answer or else some titles that, upon examination, do not in fact contain the promised accounts. *That* such accounts exist seems to be something that is widely known, but I have yet to encounter someone who knows *where* they exist.¹⁹⁴

Griffin adds: "There is . . . a growing recognition [among scientists] that at present a neo-Darwinian solution to the problem of the origin of life is not even in sight, with many saying that it seems impossible in principle."¹⁹⁵

¹⁹³Franklin Harold, *The Way of the Cell* (Oxford University Press, 2001), 205.

¹⁹⁴David Griffin, *Religion and Scientific Naturalism: Overcoming the Conflicts*, SUNY Series in Constructive Postmodern Thought, series edited by David Ray Griffin (Albany, New York: State University of New York Press, 2000), 287, n. 23.

¹⁹⁵Griffin, *Religion and Scientific Naturalism*, 288. It should be pointed out that within the scientific community the majority of scientists disagree with Behe's claim (supported by Shapiro, Coyne, Harold, and Griffin) that molecular evolution is not based on scientific authority. For a sampling of the growing body of work by critics who are scientists attempting to show that neo-Darwinian evolution *can* explain what has not yet been explained, see the following: Kenneth R. Miller, *Finding Darwin's God: A Scientist's Search for Common Ground between God and Evolution* (New York: HarperCollins/Cliff Street Books, 1999); Kenneth R. Miller, "Answering the Biochemical Argument from Design," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 292-307; Kenneth R. Miller, "The Flagellum Unspun: The Collapse of 'Irreducible Complexity,'" in *Debating Design: From Darwin to DNA*, edited by William A. Dembski & Michael Ruse (Cambridge: Cambridge University

Behe's observation is significant for (at least) two reasons. First, all living organisms are constituted by cells constituted by systems of complex molecular machines, so if these complex biochemical systems have

Press, 2004), 81-97; Niall Shanks & Karl H. Joplin, "Redundant Complexity: A Critical Analysis of Intelligent Design in Biochemistry," *Philosophy of Science* 66 (1999): 268-282; T. Cavalier-Smith, "The Blind Biochemist," *Trends in Ecology and Evolution* 12:4 (1997): 162-163; Richard E. Lenski, Charles Ofria, Robert T. Pennock & Christoph Adami, "The Evolutionary Origin of Complex Features," *Nature* 423 (May 8, 2003): 139-144; Robert T. Pennock, *Tower of Babel: The Evidence against the New Creationism* (Cambridge, Massachusetts: The MIT Press, 1999); Russel F. Doolittle, "A Delicate Balance," *Boston Review*, February/March 1997, 28-29 (*Boston Review* is published by the Massachusetts Institute of Technology, and Doolittle's article is a part of a symposium wherein Behe's book and Dawkins' *Climbing Mount Improbable* were discussed by scientists; Doolittle is a biochemist). For Behe's replies, see: Michael J. Behe, "Self-Organization and Irreducibly Complex Systems: A Reply to Shanks and Joplin," *Philosophy of Science* 67 (March 2000); Michael J. Behe, "The Modern Intelligent Design Hypothesis: Breaking Rules," *Philosophia Christi* 3:1 (2001): 165-179; reprinted under the same title in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson (London & New York: Routledge, 2003), 277-291; Michael J. Behe, "Irreducible Complexity: Obstacle to Darwinian Evolution," in *Debating Design: From Darwin to DNA*, edited by William A. Dembski & Michael Ruse (Cambridge: Cambridge University Press, 2004), 352-370. For additional replies to Behe's critics, see William A. Dembski, *The Design Revolution: Answering the Toughest Questions about Intelligent Design* (Downers Grove, Illinois: InterVarsity Press, 2004). For a response by a microbiologist to recent scientific challenges to the flagellum's irreducible complexity, see Scott Minnich's lecture "Paradigm of Design: The Bacterial Flagellum" (Colorado Springs, Colorado/Santa Barbara, California: Access Research Network/University of California, 2003; DVD). And for a critical review of Pennock, see Joseph Poulshock, "Review of *Tower of Babel: The Evidence against the New Creationism*, by Robert T. Pennock," *Philosophia Christi* 1:2 (1999): 149-151.

Some scientists also allege that, contrary to what Behe, Shapiro, Coyne, Harold, and Griffin claim, the scientific literature has already in fact explained the neo-Darwinian origins of irreducibly complex systems prior to the publication of the critics' articles listed above. For examples, see: P. W. Atkins, "Review of Michael Behe, *Darwin's Black Box*" <http://www.infidels.org/library/modern/peter_atkins/behe.html>; and Bruce Weber, "Irreducible Complexity and the Problem of Biochemical Emergence," *Biology and Philosophy* 14 (1999): 593-605. For Behe's reply to allegations that the scientific literature has in fact already explained the neo-Darwinian origins of irreducibly complex systems prior to the publication of the critics' articles listed above, see Michael J. Behe, "Irreducible Complexity and the Evolutionary Literature: Response to Critics," Discovery Institute, July 31, 2000 <<http://www.discovery.org/scripts/viewDB/index.php?command=view&id=443>>. In this online article, Behe points out that "Darwinian enthusiasts on the Internet" list at their websites large numbers of papers and books which purport to explain irreducibly complex systems in neo-Darwinian terms but in fact do not, and that these websites have been uncritically accepted by some, e.g., Atkins and Weber. As a sampling of the websites' references show, the websites' references have to do with either (1) works that have nothing to do with irreducible complexity (e.g., sequence comparisons) or (2) with works unrelated to the pertinent issues (because of unnoticed ambiguity of the words used in the computer searches). Quite correctly, Behe finds it more reasonable to go with the views of scientific reviewers of his book -- respected scientists such as Shapiro, Coyne, Harold and others -- who are antagonistic to his intelligent design proposal, are aware of the relevant science, and do not rely on unscholarly, shown-to-be-dubious websites.

not been explained then so have not the organisms to which they belong.¹⁹⁶ Second, neo-Darwinian evolution is *the* major competing alternative to intelligent design in explaining the apparent design of these complex molecular machines, so if neo-Darwinian evolution is a weak explanation then that weakness is a consideration which counts in favour of its main competitor.¹⁹⁷

¹⁹⁶ Attempts, then, to provide neo-Darwinian evolutionary accounts in other-than-microbiological terms are problematic right from the start. For a look at what are called (disparagingly) neo-Darwinian evolutionary "just-so stories" (after Rudyard Kipling's "Just-So Stories," which are children's stories about how, say, a giraffe got its long neck) vis-à-vis truly scientific explanations, see Phillip E. Johnson, "The Storyteller & the Scientist," in Phillip E. Johnson, *Objections Sustained: Subversive Essays on Evolution, Law & Culture* (Downers Grove, Illinois: InterVarsity Press, 1998), 48-56. Johnson's article is a joint review of Dawkins' *Climbing Mount Improbable* and Behe's *Darwin's Black Box*. In Johnson's article Dawkins is the storyteller, Behe the scientist.

¹⁹⁷ Sober thinks that "*nothing*" would follow about the plausibility of intelligent design theory even if neo-Darwinian evolutionary theory failed (Sober, "The Design Argument," 34). Sober seems mistaken. The weakness of neo-Darwinian evolution as an explanation is a consideration which counts in favour of its main competitor just as the weakness of the evidence for Jones's guilt helps the positive evidence for Smith's guilt if it is reasonable to think that either Jones or Smith are guilty. To be sure, it is logically possible that neither Jones nor Smith are guilty; but the evidence can point in such a way that they are the two main competing culprits.

That neo-Darwinian evolution is *the* major competing alternative to intelligent design can be seen by the fact that intelligent design tends to be viewed as an intellectually respectable theory *until* it competes with the neo-Darwinian view of evolution. In support of this point, see: Dawkins, *The Blind Watchmaker*, chapter 1; Rowe, *Philosophy of Religion*, 49; Sober, *Philosophy of Biology*, 36.

For other scientific criticisms of neo-Darwinian evolutionary theory, see: Michael Denton, *Evolution: A Theory in Crisis* (London: Adler & Adler, 1986); Phillip E. Johnson, *Darwin on Trial*, 2nd edition (Downers Grove, Illinois: InterVarsity Press, 1993); Jonathan Wells, *Icons of Evolution: Science or Myth?* (Washington, D.C.: Regnery Publishing, Inc., 2000). According to Denton, Johnson, and Wells, the evidence for evolution consists primarily of evidence for *small-scale* evolution (e.g., moths changing their wing colours to hide more easily from predator birds; finch beak variations occurring within limits to crack open tougher nuts; new species of fruit flies evolving from other species of fruit flies, i.e., they develop into a new group that can no longer breed with the old group, yet they remain fruit flies). But, Denton, Johnson, and Wells point out, micro-evolution is consistent with intelligent design (i.e., the organisms may be designed to adapt to their circumstances rather than die off immediately). Moreover, these critics point out, the evidence for evolution should consist primarily of evidence for *large-scale* evolution (i.e., evidence of moths and finches and fruit flies coming into existence *in the first place* from, say, bacteria). Furthermore, in some cases (i.e., the moths, plus drawings of embryos allegedly showing evolutionary changes) it is clear that the evidence was fudged -- and has been known to have been fudged by the scientific community for quite some time. Denton, Johnson, and Wells also address the fossil record. According to these critics, aside from *Archaeopteryx* (the bird/reptile) and *Ambulocetus* (the whale with feet), the fossil record provides little confirmation of the predicted multitude of transitional forms that are to be expected if neo-Darwinian evolution is true. Instead, the fossil record presents us with, for example, the Cambrian explosion, where the basic animal groups appear suddenly and without evidence of evolutionary ancestors, and then *stasis*. Indeed, as the well-respected

paleontologist Niles Eldredge points out: "[Neo-Darwinian evolution] never seems to happen. Assiduous collecting up cliff faces yields zigzags, minor oscillations, and the very occasional slight accumulation of change – over millions of years, at a rate too slow to account for all the prodigious change that has occurred in evolutionary history. When we do see the introduction of evolutionary novelty, it usually shows up with a bang" (Niles Eldredge, *Reinventing Darwin* [New York: John Wiley & Sons, 1995], 95; it should be noted that Eldredge [with Stephen Jay Gould] attempts to explain the fossil phenomena in terms of "punctuated equilibrium," which holds that evolutionary change occurs in larger leaps after long periods of stasis.) Also, as Denton and Johnson and Wells point out, homology (which is the study of similarities in structures among organisms) can provide support not just for a common evolutionary ancestor, but also, quite reasonably, for a common designer. Homology seems to provide ambiguous evidence, in other words. Just as it is reasonable to think that roller blades, shopping carts, and automobiles have wheels because they are designed that way (because wheels are, for specific purposes, a good idea), so too it is reasonable to think that fish and horses and humans have backbones because they are designed that way (because backbones are, for specific purposes, a good idea); and so too it is reasonable to think that fish and horses and humans have DNA (because DNA is, for specific purposes, a good idea too). Denton and Johnson and Wells offer several other important criticisms, but further discussion of those criticisms will be considered beyond the scope of this dissertation. Suffice it to say here that it seems reasonable to think that, contrary to what some of its more enthusiastic proponents may wish, the alleged truth of neo-Darwinian evolutionary theory can be reasonably disputed – especially in view of Behe's findings.

For additional scientific criticisms of neo-Darwinian theory, see too: John Angus Campbell & Stephen C. Meyer, editors, *Darwinism, Design, and Public Education* (East Lansing, Michigan: Michigan State University Press, 2003), part 2; and Cornelius G. Hunter, *Darwin's Proof* (Grand Rapids, Michigan: Brazos Press, 2003). And see part 4 of William A. Dembski & Michael Ruse, editors, *Debating Design: From Darwin to DNA* (Cambridge: Cambridge University Press, 2004).

The above critics of neo-Darwinian evolutionary theory -- especially Johnson and Wells -- are not without their critics. On Johnson, see <<http://www.talkorigins.org/faqs/johnson.html>>, and on Wells, see Kevin Padian & Alan Gishlick, "The Talented Mr. Wells," *Quarterly Review of Biology* 77 (2002): 33-37. For a response from Wells to his critics (Padian and Gishlick, and others), see Jonathan Wells, "Critics Rave Over *Icons of Evolution*: A Response to Published Reviews," Discovery Institute, 12 June 2002 <<http://www.iconsofevolution.com/embedJonsArticles.php3?id=1180>>; and for a response from Johnson to his critics (in particular, Kenneth Miller and Robert Pennock), see "How Did We Get Here? (A Cyber Debate)," NOVA Online, November-December 1996 <<http://www.pbs.org/wgbh/nova/odyssey/debate/index.html>> and see Phillip E. Johnson, "The Empire Strikes Back," in *The Wedge of Truth: Splitting the Foundations of Naturalism* (Downers Grove, Illinois: InterVarsity Press, 2000), 125-142.

The claim that there is a paucity of transitional forms in the fossil record is challenged by zoologist Kathleen Hunt at her website "Transitional Vertebrate Fossils FAQ," The Talk.Origins Archive, 1994-1997 <<http://www.talkorigins.org/faqs/faq-transitional.html>>. But see too the work of some respected paleontologists who clearly disagree. Paleontologist Steven Stanley points out that "The known fossil record fails to document a single example of phyletic (gradual) evolution accomplishing a major morphological transition and hence offers no evidence that the gradualistic [neo-Darwinian] model can be valid" (Steven Stanley, *Macroevolution* [San Francisco: W. H. Freeman, 1979], 39). Paleontologist T. S. Kemp points out that "The observed fossil pattern is invariably not compatible with a gradualistic [neo-Darwinian] evolutionary process" (T. S. Kemp, *Fossils and Evolution* [Oxford: Oxford University Press, 1999], 16). Paleontologist Robert Carroll points out that the fossil record shows us that species "do not form a continuous spectrum of barely distinguishable intermediates. Instead, nearly all species can be recognized as belonging to a relatively limited number of clearly distinct major groups, with very few illustrating intermediate structures or ways of

What is worse for the non-intelligent-cause competition to design theory is that contemporary science shows that non-intelligent-causal explanations of the *origin* of the cell and its molecular machines *in the first place* -- a.k.a. the origin-of-life problem -- not only has *not yet* been explained but also is *extremely problematic* as an explanation. This point is reasonably substantiated by the following comments from several leading origin-of-life scientists and from credible reporters of the present state of origin-of-life science. Francis Crick (co-discoverer of the structure of DNA): "An honest man, armed with all the knowledge available to us now, could only state that in some sense, the origin of life appears to be almost a miracle, so many are the conditions which would have to be satisfied to get it going."¹⁹⁸ Klaus Dose (of the Mainz Institute for Biochemistry): "More than 30 years of experimentations on the origin of life in the fields of chemical and molecular evolution have led to a better perception of the immensity of the problem of the origin of life on Earth rather than to its solution. At present all discussion on principal theories and experiments in the field either end in stalemate or in a confession of ignorance."¹⁹⁹ Leslie Orgel (of the Salk Institute for Biological Studies, who compares the origin-of-life search to a detective story): "We are very far from knowing whodunit."²⁰⁰ Paul Davies, a theoretical physicist and science-writer turned origin-of-life investigator, concurs: "[S]cientists are currently stumped The problem of how and when life began is one of the great outstanding mysteries of science."²⁰¹ Also, reporting on the 1999 meeting of the International

life." (Robert Carroll, *Patterns and Processes of Vertebrate Evolution* [Cambridge: Cambridge University Press, 1997], 9.) The result, Carroll adds: "Paleontologists in particular have found it difficult to accept that the slow, continuous, and progressive changes postulated by Darwin can adequately explain the major reorganizations that have occurred between dominant groups of plants and animals" (Carroll, *Patterns and Processes of Vertebrate Evolution*, 9).

¹⁹⁸Francis Crick, *Life Itself: Its Origin and Nature* (New York: Simon & Schuster, 1981), 88.

¹⁹⁹Klaus Dose, "The Origin of Life: More Questions Than Answers," *Interdisciplinary Science Review* 13 (1988): 348.

²⁰⁰Leslie Orgel, "The origin of life -- a review of facts and speculations," *Trends in Biochemical Sciences* 23 (1998): 495.

²⁰¹Paul Davies, *The 5th Miracle: The Search for the Origin and Meaning of Life* [New York: Simon & Schuster, 1999], 17, 19, 27. Davies goes on to speculate that life on earth may have begun from "superbugs"

Society for the Study of the Origin of Life which was combined with the International Conference on the Origin of Life, biochemist Fazale Rana and astronomer Hugh Ross write: "Some 45 years of well-funded investigation have led to one dead end after another. The same intractable problems still remain, with no glimmering of resolution in sight."²⁰² Summarizing the situation, *New York Times* science-writer Nicholas Wade puts the matter this way: "Everything about the [naturalistic] origin of life on earth is a mystery, and it seems the more that is known, the more acute the puzzles get."²⁰³ Wade adds: "The [naturalistic] genesis of life on earth . . . remains an unyielding problem."²⁰⁴

At this juncture, one might ask: Why is the fact that some scientists, i.e., those who do not yet have what they regard as a good non-intelligent design hypothesis about the origin of life, think that they do not have *any evidence at all* for the intelligent-design hypothesis?²⁰⁵ It should be noted here, as has been argued at length in this chapter, that the scientists who do not yet have what they regard as a good non-intelligent cause hypothesis about the origin of life *do* have evidence for the intelligent design hypothesis: it is the same evidence that they are having extreme difficulty explaining in terms of non-intelligent causes -- evidence that smacks of intelligent design (as even the likes of Darwin and Dawkins acknowledge, as we have seen). So why do these scientists not consider the intelligent design hypothesis? It seems that some scientists think that origin of life science allows, *by definition*, only explanations that appeal to non-intelligent causes, so if they

(tough bacteria) which were carried to earth via meteors. Of course, the mystery of the origin of the superbugs remains. For a readable review of Davies' book, see Michael J. Behe, "God...Sort Of," *First Things* (June/July 1999), 42-45.

²⁰²Fazale Rana & Hugh Ross, "Life From the Heavens? Not This Way...," *Facts For Faith* 1 (2000): 11.

²⁰³Nicholas Wade, "Life's Origins Get Murkier and Messier," *The New York Times* (June 13, 2000), F1.

²⁰⁴Wade, "Life's Origins Get Murkier and Messier," F2. In an article of a more personal sort, John Horgan, a highly-respected senior science writer at *Scientific American*, summarizes the contemporary scientific situation, candidly, and eloquently, as follows: "Science, you might say, has discovered that our existence is infinitely improbable, and hence a miracle" (John Horgan, "A Holiday Made for Believing," *New York Times* [December 25, 2002], A23).

²⁰⁵Thanks go to Jan Narveson for this important question.

cannot find a non-intelligent explanation for the evidence, then they have *no* explanation; and so the evidence in hand is not even considered as possibly supporting the intelligent design hypothesis. Consider the following remarks by Richard Dickerson (a biochemist who is a member of the National Academy of Sciences): "Science, fundamentally, is a game. It is a game with one overriding and defining rule: *Rule No. 1*: Let us see how far and to what extent we can explain the behavior of the physical and material universe in terms of purely physical and material causes, without invoking the supernatural."²⁰⁶ In the case of origin of life science, Dickerson's last phrase ("without invoking the supernatural") when taken as a contrast to his earlier words ("purely physical and material causes") seems to mean *without invoking an intelligent design hypothesis*. So, it seems that, for some scientists, to do origin of life science basically involves disregarding intelligent design hypotheses, *in spite of the evidence*. There is a cartoon that might be helpful here.²⁰⁷ It is a single-frame cartoon. It depicts a large room which has wandering about inside it a dozen men who look like Sherlock Holmes. The men are examining the room's various nooks and crannies with their magnifying glasses. The inspectors seem very much to be looking for clues to explain a very apparent death-by-crushing: on the floor there is a body that looks very much like it was stomped upon by an elephant. Interestingly, and completely unnoticed by the inspectors, there stands in the middle of the room a very large, guilty-looking elephant. The caption reads: "Scotland Yard always gets its man." Contrary to what Dickerson thinks, then, science should be a pursuit of the truth about the universe, invoking intelligent causes not as a last resort after every possible non-intelligent cause, no matter how lame, has been tried -- which in effect rules out intelligent causes right at the start -- but as an available option that can compete with plausible non-intelligent causal explanations. (It perhaps should be emphasized here that allowing intelligent causes into science is not to embrace *ipso facto*

²⁰⁶Richard Dickerson, "Random Walking: The Game of Science," *Journal of Molecular Evolution* 34 (1992): 277.

²⁰⁷I would append a photocopy of the cartoon if I could find it, but I cannot find it, so I will just describe it from memory (which, I admit, is fallible). (I suspect that Michael Behe presented the cartoon in a lecture he presented at the University of Waterloo a few years ago.)

young earth, six 24-hour day creationism; it is, merely, to go in whatever direction the evidence leads, which is very apparently *not* in the direction of a young earth created in six 24-hour days.²⁰⁸)

A move that one might make now is to follow Robert Pennock and dismiss the indirect evidence for design, which the weakness of naturalistic explanation of the origin of life provides, by pointing out that "Research into this topic [origin of life] has started only relatively recently."²⁰⁹ As Behe correctly observes, however, the so-called relatively recent start date of origin-of-life research "turns out to be seventy-five years ago."²¹⁰ Moreover -- and more importantly -- the more recent of these years have been saturated with the latest and best of humankind's scientific and technological advances. Thus, on the basis of what we have learned over the past seventy-five years about what non-intelligent causes can and cannot do with respect to the origin-of-life problem -- which is a pretty substantial pool of knowledge²¹¹ -- it is reasonable to think that non-intelligent causes do a *demonstrably poor job* of explaining the origin of life. Consequently, *pace* Pennock, it seems quite *unreasonable* to dismiss the indirect evidential value of the very apparent weakness of naturalistic explanation.

²⁰⁸For a helpful discussion of this topic which is scientifically as well as theologically astute, see the work of astrophysicist-theologian Hugh Ross, especially his *Creation and Time: A Biblical and Scientific Perspective on the Creation-Date Controversy* (Colorado Springs, Colorado: NavPress, 1994). See too J. P. Moreland & John Mark Reynolds, editors, *Three Views on Creation and Evolution*, Counterpoints series (Grand Rapids, Michigan: Zondervan Publishing House, 1999). In the latter work, the three views on creation and evolution that are examined are: Young Earth Creationism, Old Earth (Progressive) Creationism, and Theistic Evolution. Old Earth (Progressive) Creationism is the view that the universe was caused by God 13.7 billion years ago to come into existence via the Big Bang and that "God used some combination of supernatural intervention and providential guidance to construct the universe [and its contents]" (Robert C. Newman, "Progressive Creationism ('Old Earth Creationism')," in *Three Views on Creation and Evolution*, 105-106). In the view of this dissertation's author, Old Earth/Progressive Creationism seems to fit with the facts best.

²⁰⁹Robert T. Pennock, *Tower of Babel: The Evidence Against the New Creationism* (Cambridge, Massachusetts: The MIT Press, 1999), 161.

²¹⁰Michael J. Behe, "The God of Science: The Case for Intelligent Design, A Review of *Tower of Babel: The Evidence Against the New Creationism* by Robert Pennock," Access Research Network website (http://www.arn.org/docs/behe/mb_godofscience.htm).

²¹¹See again the references from Crick, Dose, Orgel, Davies, Fana and Ross, and Wade. See too Robert Shapiro, *Origins: A Skeptic's Guide to the Creation of Life on Earth* (New York: Bantam Books, 1986).

But let us, for the sake of argument, grant the truth of some self-organizational theory for life's origin (such as, say, Stuart Kauffman's "complexity theory"²¹²) and for life's subsequent development (such as neo-Darwinian evolution²¹³). Significantly, even if we concede such theories for the sake of argument -- but without embracing any metaphysical naturalism that may be inadvertently conjoined with the theories; that is, we deliberately remain temporarily/undogmatically agnostic with respect to the issue of whether or not there is an intelligent cause ultimately in charge of nature, *until we look at the products of nature* -- then it very much seems that the deep mind affinity of the complex molecular machines *remains*. Why? Because the design argument from analogy set out above does not ultimately depend upon *how* the molecular machines were created (e.g., by direct instantaneous creation and/or by some long drawn-out evolutionary process frontloaded with design); rather, it depends upon the *deep mind affinity of the end result*, a deep mind affinity which we have seen to obtain in fact. The end result is relevantly similar to what we clearly recognize in our experience as having been created by an intelligent cause -- factories, machines, and computers. Moreover, to think that explaining the very apparent design of molecular machines in terms of neo-Darwinian theory or

²¹²Stuart A. Kauffman, *The Origins of Order* (Oxford: Oxford University Press, 1993). Stuart Kauffman's self-organization theory is based on computer models which, as Davies points out, "show that any network with enough components and interactions will tend to flip spontaneously into a state of organized complexity" (Davies, *The 5th Miracle*, 140). Davies also points out that because Kauffman's work tends to focus on computer models and not real evidence, it suffers from a "paucity of convincing experiments" and therefore has been described (disparagingly) as "fact-free science" (Davies, *The 5th Miracle*, 141). Davies adds: "The theory of self-organization as yet gives no clue how the transition is to be made between spontaneous, or self-induced, organization -- which in even the most elaborate nonbiological examples still involves relatively simple structures -- and the highly complex, information-based, genetic organization of living things" (Davies, *The 5th Miracle*, 141). For additional comments on Kauffman's theory, see too Behe, *Darwin's Black Box*, 189-192.

²¹³See Dawkins, *The Blind Watchmaker*, and Dawkins, *Climbing Mount Improbable*. It might be the case that the mechanism of neo-Darwinian evolution needs some serious revision in terms of, say, Eldredge and Gould's "punctuated equilibrium," i.e., evolutionary change somehow occurs quite rapidly subsequent to lengthy periods of little or no development (or evolutionary change occurs in places unrecorded by the fossil record), thereby explaining the stasis and "explosions" found in the fossil record. Or it might be the case that Behe's biochemical challenge to evolution simply falters against the results of new research, research which shows that the neo-Darwinian mechanism is complete and can actually do the creative work that has been attributed to it.

chemical evolution or some other self-organizational theory explains away the design of those machines is similar to thinking that explaining, say, Mount Rushmore's faces of Abraham Lincoln *et al.* in terms of wind and erosion explains away their design. The sculptured faces, which are strongly analogous to what we clearly recognize as designed, show that the wind and erosion, though unintelligent *per se*, are ultimately instruments or conduits of an intelligent causal power.

Perhaps, instead of the faces on Mount Rushmore, it would be helpful to consider again Hambourger's perfect nativity scene on a frosty window or Behe's perfect mouldy portrait of Elvis (which were discussed previously). To think that explaining the very apparent design of molecular machines in terms of some self-organizational theory explains away the design is similar to thinking that explaining the perfect nativity scene or Elvis's portrait in terms of natural laws having to do with cold and moisture and glass and air currents or mould formation explains away their design. But it does not. It merely pushes the artist -- the intelligent causal power -- back a few steps from the canvas. Whether the artist uses short brushes (immediate creation) or long brushes (secondary, instrumental causes) or a combination of both is not relevant to our appreciation of the artwork's design. Moreover, the design remains even if it turns out that the artist also created the canvas and the paints and the brushes (via fine-tuning of the universe's initial conditions).

Thus, because of the positive evidence for deep mind affinity combined with the very apparent inability of alternative explanations to explain away this deep mind affinity, the design explanation of molecular machines is reasonable to hold.²¹⁴

²¹⁴In other words, this conclusion does not arise from a "designer-of-the-gaps" argument, that is, this conclusion does not arise from ignorance. The conclusion is based on what we know, not what we do not know. We have good reasons for thinking that the molecular machines display design; we also have good reasons for thinking that our best non-intelligent-cause explanations do not work in explaining away that design. Of course, this is not to say that we can *never* have a good non-intelligent-cause explanation; but it is to say that the view that we someday *will* have a good non-intelligent-cause explanation is a view that is based on a *faith* that seems very much to go contrary to the evidence that we presently have. The point can be illustrated via a legal analogy. Yes, the defendant *might* be innocent; nevertheless, it is reasonable to convict the defendant if the evidence for his/her guilt is strong and the evidence for the other primary suspect's guilt is weak.

B. DNA's Language/Code

1. The Evidence for DNA's Language/Code

Although the scientific community is in disagreement over whether or not DNA's language/code constitutes evidence of intelligent agency -- in fact, only a minority of scientists hold to the intelligent agency view whereas the majority do not -- that DNA is a molecule which bears a language/code is pretty much established by the scientific community.²¹⁵ Famously, the work of James Watson and Francis Crick brought to light the double-helix structure of DNA. Building on Watson's and Crick's work, especially Crick's "sequence hypothesis," scientists subsequently discerned the DNA's nucleotide-base sequencing, or code.²¹⁶ As it turns out, the two sides of the spiraling DNA "ladder" are made of sugar and phosphate molecules, and the ladder's "rungs" are made of pairs of bases (adenine, thymine, guanine, or cytosine) each element of which chemically bonds with one of the ladder's opposing sides (to form a nucleotide base) and links together with its base-mate in the centre of the rung via a hydrogen bond (which is a weak bond which allows the ladder to split down the middle for purpose of replication). Significantly, the precise sequence of the rungs, that is, the

²¹⁵Again, it should be acknowledged that to call something "established by the scientific community" is to admit corrigibility and tentativeness concerning that something, especially since scientific consensus can change drastically and quickly due to new discoveries. Again, it is reasonable to look at the philosophical significance of the present albeit possibly transitory findings delivered by science. (These remarks are repeated here because they are important. It seems to the author of this dissertation that one should not rest one's deepest religious convictions upon a foundation that is not firm; or, if one does, one should realize the risk.) It should be noted here too that later in this section, when objections to deep mind affinity are considered, reference will be made to the work of some of the scientists who disagree with this dissertation's appeal to intelligent cause.

²¹⁶The following description (above) of DNA's workings can be found in any recent college or university biology textbooks. For examples, see: Geoffrey M. Cooper, *The Cell: A Molecular Approach* (Washington, D.C.: ASM Press; Sunderland, Massachusetts: Sinauer Associates, Inc., 1997); Percival Davis & Dean H. Kenyon, *Of Pandas and People: The Central Question of Biological Origins*, 2nd edition (Dallas, Texas: Haughton Publishing Company, 1993); Cecie Starr & Ralph Taggart, *Biology: The Unity and Diversity of Life*, 6th edition (Belmont, California: Wadsworth Publishing Company, 1992). See too the entry "DNA" in James Trefil, editor, *Encyclopedia of Science and Technology* (New York & London: Routledge, 2001), 151-153, and see Julie Clayton & Carina Dennis, editors, *50 Years of DNA* (New York & London: Palgrave Macmillan/ Nature Publishing Group, 2003).

precise sequence of the pairs of nucleotide bases, constitutes an instruction or set of instructions for building various complex protein structures (machines) in the cell. According to Orgel (as mentioned earlier in the chapter), "the information content of a structure is the minimum number of instructions needed to specify the structure."²¹⁷ Referring to the nucleotide base sequence of the cell's nucleus, Dawkins points out that "Each nucleus . . . contains a digitally coded database larger, in information content, than all 30 volumes of the *Encyclopedia Britannica*."²¹⁸ Science shows us, then, that the DNA language/code of a cell carries a *lot* of instructions.

2. Accounting for DNA's Language/Code

(a) A Case for Deep Mind Affinity

The deep mind affinity arising from the DNA stems from the close correspondence between DNA's language/code and human language. According to Meyer,

Just as the letters in the alphabet of a written language may convey a particular message depending on their arrangement, so too do the sequences of nucleotide bases (the As, Ts, Gs, and Cs) inscribed along the spine of a DNA molecule convey a precise set of instructions for building proteins within the cell. The nucleotide bases in DNA function in much the same

²¹⁷Orgel, *The Origins of Life*, 190.

²¹⁸Dawkins, *The Blind Watchmaker*, 22. The information capacity of cells varies, depending on the sort of cell it is. Dawkins also points out that "there is enough information capacity in a single human cell to store the *Encyclopedia Britannica*, all 30 volumes of it, three or four times over" and (surprisingly) that "[t]here is enough storage capacity in the DNA of a single lily seed or a single salamander sperm to store the *Encyclopedia Britannica* 60 times over" (Dawkins, *The Blind Watchmaker*, 141). It seems that DNA may not be the whole story for explaining the complexity of a human organism in its growth from fertilized egg to adult. According to microbiologist Jonathan Wells, "there is good evidence for the involvement of at least two other factors in the egg -- the cytoskeleton and the membrane" (Jonathan Wells, "Making Sense of Biology: The Evidence for Development by Design," in *Signs of Intelligence: Understanding Intelligent Design*, edited by William A. Dembski & James M. Kushiner [Grand Rapids, Michigan: Brazos Press, 2001], 120). In this dissertation, the focus will be on DNA. It may be helpful here to keep in mind that the issue has to do with the highly complex digitally-coded database of the DNA of the human cell, not its degree of complexity when compared to the DNA of other organisms.

way as symbols in a machine code or alphabetic characters in a book.²¹⁹

Interestingly, Bill Gates (of Microsoft fame) points out that ". . . DNA is like a computer program but far, far more advanced than any software we've ever created."²²⁰ Hubert Yockey adds,

It is important to understand that we are not reasoning by analogy. The sequence hypothesis [that the exact order of symbols records the instruction] applies directly to . . . the genetic text as well as to written language [machine or human] and therefore the treatment is mathematically identical.²²¹

In addition, it is important to understand that the instructions are *meaningful*. That is to say, the sequences of letters and nucleotide bases are not gibberish; they satisfy the requirements of an interpretive system to achieve a pre-established semantic outcome: an understood message in the case of human symbols, a functional/purposeful structure in the case of DNA's symbols -- a structure whose larger purpose, in the case of intelligent human beings, is to realize that which bears, as discerned in chapter 2, objective moral value. Thus, the analogy (*pace* Yockey) between human language and DNA's language is strong.

Is the analogy strong in the relevant respect? Answer: Yes. Why? Because we know from experience that an intelligent source (the human mind) is the cause of highly-complex and highly-specific written/encoded messages which have the information content of a multi-volume encyclopedia and which require a context of interpretation to be meaningful. And because we have good reason to think that non-intelligent causes are not up to the challenge (as has been pointed out previously and will be pointed out again in the next section). In

²¹⁹Stephen C. Meyer, "Word Games: DNA, Design, and Intelligence," in *Signs of Intelligence: Understanding Intelligence Design*, edited by William A. Dembski & James M. Kushiner (Grand Rapids, Michigan: Brazos Press, 2001), 108. Meyer's parenthetical "the As, Ts, Gs, and Cs" is a reference in abbreviated form to the nucleotide bases adenine, thymine, guanine, and cytosine.

²²⁰Bill Gates, *The Road Ahead*, 2nd edition (New York: Penguin Books, 1996), 228. Gates is speaking of human DNA.

²²¹Hubert P. Yockey, "Self-Organization Origin of Life Scenarios and Information Theory," *Journal of Theoretical Biology* 91 (1981): 13.

other words, as Charles Colson colourfully points out via rhetorical question, "If Windows XP points to Bill Gates, how much more do the marvellous complexities of DNA point directly to God, the great Intelligent Designer?"²²² Although Colson may be overstating the case, DNA's language/ code nevertheless seems very much to constitute good evidence of intelligent design.

Whether or not DNA's language/code is sufficient evidence of intelligent design depends on how well attempts to explain away the apparent design fare.

(b) Dealing with the Competition

Can the DNA's apparent design be explained away in terms of a non-intelligent cause? Because the question of the origin of DNA's language/code turns out to be virtually the same question as the origin of life -- Where do DNA's instructions for constructing the cell's life-giving molecular machines come from? -- it will be helpful to repeat here the comments from leading origin-of-life scientists and credible reporters of the present state of origin-of-life research. Crick (co-discoverer of the structure of DNA): "An honest man, armed with all the knowledge available to us now, could only state that in some sense, the origin of life appears to be almost a miracle, so many are the conditions which would have to be satisfied to get it going."²²³ Dose (of the Mainz Institute for Biochemistry): "More than 30 years of experimentations on the origin of life in the fields of chemical and molecular evolution have led to a better perception of the immensity of the problem of the origin of life on Earth rather than to its solution. At present all discussion on principal theories and experiments in the field either end in stalemate or in a confession of ignorance."²²⁴ Orgel (of the Salk Institute for Biological Studies, who compares the origin-of-life search to a detective story): "We are very far from

²²²Charles Colson, "XP and I.D.: Lessons in Origins from Microsoft," *Breakpoint*, Commentary #011031 (October 31, 2001), <<http://www.breakpoint.org>>.

²²³Crick, *Life Itself*, 88.

²²⁴Dose, "The Origin of Life," 348.

knowing whodunit."²²⁵ Davies (theoretical physicist and science-writer turned origin-of-life investigator) concurs: "[S]cientists are currently stumped The problem of how and when life began is one of the great outstanding mysteries of science."²²⁶ Also, reporting on the 1999 meeting of the International Society for the Study of the Origin of Life which was combined with the International Conference on the Origin of Life, biochemist Rana and astronomer Ross write: "Some 45 years of well-funded investigation have led to one dead end after another. The same intractable problems still remain, with no glimmering of resolution in sight."²²⁷ Summarizing the situation, Wade (science-writer of the *New York Times*) puts the matter this way: "Everything about the [naturalistic] origin of life on earth is a mystery, and it seems the more that is known, the more acute the puzzles get."²²⁸ Wade adds: "The [naturalistic] genesis of life on earth . . . remains an unyielding problem."²²⁹ Contemporary science, then, has tried very hard to explain the origin of life and its DNA language/code in terms of non-intelligent causes, but seems very much not to have succeeded (at least not thus far).²³⁰

Of course, one might object here with Pennock (again) by pointing out that "Research into this topic [origin of life] has started only relatively recently."²³¹ Again we can respond with Behe when he observes that

²²⁵Orgel, "The origin of life -- a review of facts and speculations," 495.

²²⁶Davies, *The 5th Miracle*, 17, 19, 27.

²²⁷Rana & Ross, "Life From the Heavens? Not This Way....," 11.

²²⁸Wade, "Life's Origins Get Murkier and Messier," F1.

²²⁹Wade, "Life's Origins Get Murkier and Messier," F2.

²³⁰This is *not* to say that science is a flop. The argument in this dissertation is not anti-science; rather, the argument is *pro-science*. The argument in this dissertation is in favour of science that is unconstrained by naturalistic/ non-intelligent-cause assumptions. In other words, science -- successful science -- tells us that a certain type of hypothesis works poorly and that another type seems to have a better shot (if that other type is not ruled out from the explanatory competition).

²³¹Pennock, *Tower of Babel*, 161.

the so-called relatively recent start date of origin-of-life research "turns out to be seventy-five years ago."²³² Of course, however, it should be noted that in the case of DNA our knowledge only began to grow about fifty-five years ago, with Crick and Watson's work, and only in the last fifteen or so years have scientists had the computing power adequate to handle DNA's complex information, and only in the last five or so years has the human genome been unraveled. All this is true. Nevertheless, the fact remains that the more recent of these fifty or so years have been saturated with the latest and best of humankind's scientific and technological advances -- advances that have shown us that the origin of DNA is a bigger problem than was previously thought. In fact, the very apparent trend of origin-of-life research (as described in the previous paragraph) seems very much to be that *the more we know* about DNA (and the living cell), *the more difficult* it is to explain naturalistically. Thus, on the basis of what we have learned over the past half century about what non-intelligent causes can and cannot do with respect to the origin-of-life/DNA problem, it is reasonable to think that non-intelligent causes do a *demonstrably poor job* of explaining this origin.²³³

²³²Michael J. Behe, "The God of Science: The Case for Intelligent Design, A Review of *Tower of Babel: The Evidence Against the New Creationism* by Robert Pennock," Access Research Network website (http://www.arn.org/docs/behe/mb_godofscience.htm).

²³³Of course, this could change. But so far it has not and it seems unlikely to do so in the near future at least (for which the next paragraphs above will provide reasons). For some examples of scientific work which attempts to explain DNA's code without appeal to intelligent cause, see: Walter Gilbert, "The RNA World," *Nature* 319 (1986): 618; I. Hirao & A. D. Ellington, "Re-Creating the RNA World," *Current Biology* 5 (1995): 1017-1022; Freeman Dyson, *Origins of Life* (Cambridge: Cambridge University Press, 1985); Michael Russell, Roy Daniel, Allan Hall & John Sherringham, "A Hydrothermally Precipitated Catalytic Iron Sulphide Membrane as a First Step Toward Life," *Journal of Molecular Evolution* 39 (1994): 231; A. G. Cairns-Smith, *Seven Clues to the Origin of Life* (Cambridge: Cambridge University Press, 1985); Stuart Kauffman, *The Origins of Order* (Oxford: Oxford University Press, 1993); Stuart Kauffman, *At Home in the Universe* (Oxford: Oxford University Press, 1995). For discussion, see: Gordon C. Mills & Dean Kenyon, "The RNA World: A Critique," *Origins & Design: An Interdisciplinary Journal* 17:1 (Winter 1996): 9-14; Walter L. Bradley & Charles B. Thaxton, "Information & the Origin of Life," in *The Creation Hypothesis: Scientific Evidence for an Intelligent Designer*, edited by J. P. Moreland (Downers Grove, Illinois: InterVarsity Press, 1994), 173-210; Stephen C. Meyer, "DNA and the Origin of Life: Information, Specification, and Explanation," in *Darwinism, Design, and Public Education*, edited by John Angus Campbell & Stephen C. Meyer (East Lansing, Michigan: Michigan State University Press, 2003), 223-285.

For a recent but disappointing criticism of Meyer, see Robert T. Pennock's "DNA by Design? Stephen Meyer and the Return of the God Hypothesis," in *Debating Design: From Darwin to DNA*, edited by William A. Dembski & Michael Ruse (Cambridge: Cambridge University Press, 2004), 130-148. What is ostensibly

Significantly, not only has contemporary science thus far not succeeded in explaining the naturalistic origin of DNA's language/code, contemporary science seems to have some problems in principle which block its attempts to explain via non-intelligent causes. Unguided chance seems simply too remote a possibility for explaining the needed particular complexity of DNA. As Davies points out,

The situation may be compared to the word sequence of a novel. Change a few words here and there at random, and the text will probably be marred. Scramble all the words and there is a very high probability that it won't be a novel any more. There will be other novels with similar words in different combinations, but the set of word sequences that make up novels is an infinitesimal fraction of all possible word sequences.²³⁴

Memorably, Fred Hoyle has pointed out that the odds against the spontaneous assembly of life's constituents are about the same as that of a tornado blowing through a junkyard and putting together a functional Boeing 747 jet.²³⁵ In other words, unguided chance leads us to expect junk, not a jet; gibberish, not meaningful instructions.

What about an appeal to unguided laws? Referring to DNA and protein structures, Meyer points out that "In trying to explain these biological objects via natural regularities, [the proponent of laws] trips over a basic problem."²³⁶ Meyer explains: "Laws are, by definition, descriptions of repetitive patterns of events. But life is characterized by specified complexity: the aperiodic, information-rich sequences of DNA and

a critique of Meyer's argument from DNA to a designer, an argument to which much of Meyer's writing has been devoted in previous publications, Pennock's article turns out to be anything but such a critique. Pennock's article discusses Meyer's various op-ed pieces, the alleged shortcomings of the Intelligent Design movement's cultural strategy, and Meyer's understanding of inference to the best explanation (which, unlike Meyer, Pennock mistakenly thinks should, in the case of God, make the God hypothesis *necessary*; Pennock, "DNA by Design?", 143).

²³⁴Davies, *The 5th Miracle*, 94-95.

²³⁵Fred Hoyle, *The Intelligent Universe* (London: Michael Joseph, 1983), 19.

²³⁶Stephen Meyer, in Paul Nelson, Michael Behe, William Dembski, Stephen Meyer, Phillip Johnson & Jonathan Wells, "A Roundtable on *Nature's Destiny*," *Origins & Design: An Interdisciplinary Journal* 19:2 (Winter 1999): 29.

proteins Life is anything but simple and repetitive."²³⁷ In other words, any appeal to an unguided lawful physical-chemical process leads us to expect the repetitive order of a crystalline structure, *not* the aperiodic complexity required by an *Encyclopedia Britannica* or a DNA molecule. Moreover, if a law produces a structure, then the instructions to specify the structure are compressed into an algorithm, which means that the structure is low in information content; but to say that law produces an *Encyclopedia Britannica* or a DNA molecule is ultimately to attribute low information content to the *Encyclopedia Britannica* and DNA molecule, which seems absurd.²³⁸

At this juncture, one might object that any random process will generate strings of high information content (e.g., a description of the position of each of the grains of sand on a beach) and so the information content of DNA is not difficult to explain by appeal to unintelligent causes. In reply, it should be noted that this objection neglects the distinction made earlier in this chapter between, on the one hand, structures with high information content and no deep mind affinity (e.g., the topology of a leaves randomly strewn in piles over a yard, a description of the position of each of the grains of sand on a beach) and, on the other hand, structures with high information content *plus* deep mind affinity (e.g., the three-volume fantasy adventure *The Lord of the Rings*, the multi-volume *Encyclopedia Britannica*, the Chrysler min-van assembly plant in Windsor, the computer on my desk). As was argued in the case of DNA (as well as in the cases of the cell's molecular machines and the universe's fine-tuning), this information content -- unlike that of piles of leaves or piles of sand -- consists of instructions which serve to instantiate intelligent human beings, which are bearers of objective moral value, and it is *here* where the deep mind affinity arises. Here we see the

²³⁷Meyer, "A Roundtable on Nature's Destiny," 29.

²³⁸What is above described as seeming absurd, Davies describes as a "major conceptual lacuna" and "basic paradox" (Davies, *The 5th Miracle*, 17 & 258). Davies admits the "huge gulf in our understanding" yet goes on to speculate on a solution along the lines of Kauffman's self-organizational complexity theory blended with molecular Darwinism (Davies, *The 5th Miracle*, 17, 258-273). It might be speculated that to achieve the high information content of the *Encyclopedia Britannica* or DNA molecule there would be a great many algorithms at work and which, by chance, end up with the results in question. This is a remote possibility, but it needs to be shown.

instantiation/pursuit of a value: i.e., we see *valuing*. Significantly, the *deep meaningfulness* of this instantiation is what is missed by appeals to random processes which generate strings of mere high information content. Perhaps it might help to illustrate the matter this way. There is high information content in a dictionary and there is high information content in the description of a shredded dictionary; however, the former's high information content is meaningful, whereas the latter's is not.²³⁹

But let us do here as we did in the case of the molecular machines: Let us, for the sake of argument, grant the truth of some self-organizational theory for life's origin (e.g., Stuart Kauffman's "complexity theory") and for life's subsequent development (e.g., neo-Darwinian evolution, but perhaps with some revisions). Significantly, even if we concede such theories for the sake of argument -- but without embracing any metaphysical naturalism that may be inadvertently conjoined with the theories; that is, we deliberately remain temporarily/ undogmatically agnostic with respect to the issue of whether or not there is an intelligent cause ultimately in charge of nature, *until we look at the products of nature* -- then it very much seems that the deep mind affinity of the language/code of DNA *remains*. That is, it very much seems to be the case that the DNA language/code continues to clearly resemble a sophisticated language as well as supercomplex computer software -- which are obvious products of an intelligent cause. As was the case with the cell's molecular machines, the design argument from analogy set out above does not ultimately depend upon *how* DNA's language/code was created (e.g., by direct instantaneous creation and/or by some long drawn-out evolutionary process frontloaded with design); rather, it depends upon the *deep mind affinity of the end result*, a deep mind affinity which we have seen to obtain in fact. The end result is relevantly similar to what we clearly recognize in our experience as having been created by an intelligent cause -- human language, codes, computer software, encyclopedias -- but, in the case of computer software at least, much more complex and much more

²³⁹Thanks to Wayne Brodland for this example.

sophisticated.²⁴⁰ In addition, as was the case with the cell's molecular machines, to think that explaining the very apparent design of DNA's language/code in terms of self-organizational theory explains away the design of this language/code is similar to thinking that explaining Mount Rushmore's faces of Abraham Lincoln *et al.* in terms of wind and erosion explains away their design. The sculptured faces, which are strongly analogous to what we clearly recognize as truly designed, would, if created by wind and erosion, show that the wind and erosion, though unintelligent *per se*, are ultimately instruments or conduits of an intelligent causal power.

At this juncture, one might object that the lack of an evolutionary history of the Mount Rushmore faces in terms of replication and variation/ mutation plus natural selection is a disanalogy that weakens the argument above. In reply, it should be pointed out that although there is such a disanalogy, it is irrelevant. Consider the following reasoning. Assume, for the sake of argument, that the Rushmore rock faces *do* come about via replication and variation/mutation plus natural selection (however *that* would happen). And let us assume, for the sake of argument, that the Rushmore faces look like they have been chiseled by an artist whose skills are even greater than, say, ten Michelangeloes combined. (The purpose of this last assumption is to draw the parallel between DNA's language/code and *supersoftware*, i.e., software that is so complex and so sophisticated that it is beyond Bill Gates and Microsoft's present ability to copy -- as Gates himself admits, as has been mentioned previously.²⁴¹) It would still be reasonable, surely, to think that there is a designer/ intelligent cause behind the Rushmore rock faces. After all, explanations which appeal to supernatural intelligent causes operating on nature are not to be ruled out *a priori* (as has been argued earlier in this chapter); we are also not dogmatically embracing any metaphysical naturalism (nor are we dogmatically embracing a metaphysical supernaturalism); yet, we have very clear evidence of deep mind affinity -- and this

²⁴⁰Recall Bill Gates' comment: "...DNA is like a computer program but far, far more advanced than any software we've ever created" (Gates, *The Road Ahead*, 228).

²⁴¹No disrespect is intended to the actual designer of the Mount Rushmore sculptures, i.e., Gutzon Borglum.

very clear evidence of deep mind affinity seems very odd not to explain in terms of an intelligent cause (especially given the assumptions of this dissertation).

Also, if we concede chance and *unguided* laws for the sake of argument, that is, if, for the sake of argument, we concede a self-organizational theory for life's origin (such as, again, Kauffman's "complexity theory") and for life's subsequent development (such as, again, neo-Darwinian evolution or a revised version thereof) *and we assume that there is no guiding intelligent cause at work*, then a serious problem arises which counts more generally against any hypothesis that attempts to explain DNA's language/code in terms of non-intelligent causes (this problem also applies to hypotheses that attempt to explain the cell's molecular machines in terms of non-intelligent causes). As Alvin Plantinga points out, naturalist evolutionary theory -- i.e., evolutionary theory on the assumptions of chance and unguided laws -- guarantees at most that we *behave* in adaptive ways.²⁴² Significantly, this means that the reliability of our beliefs should very probably extend only (if at all) to success in survival and reproduction, *not* to knowing the deep and intricate theories having to do with nature, theories that are, if at all, only tenuously related to survival and reproduction. But if survival and reproduction are solely that to which our minds are geared, as naturalist evolutionary theory seems very much require, then, Plantinga goes on to argue, logic (beyond rudimentary logic) and mathematics and science -- especially theoretical science -- should be wholly dubious. But, surely, logic (beyond rudimentary logic) and mathematics and science are *not* wholly dubious. Hence, because our assumption of chance and unguided laws seems very much to lead to a known falsehood, our assumption of chance and unguided laws seems very much to be false. Interestingly, if, contrary to fact, logic and mathematics and science *are* wholly dubious, then this logically implies that *naturalistic evolutionary theory* is dubious, too. Either way, chance coupled

²⁴²What follows is from Alvin Plantinga, "An Evolutionary Argument Against Naturalism," in *Faith in Theory and Practice*, edited by Elizabeth S. Radcliffe & Carol J. White (Chicago & La Salle, Illinois: Open Court Publishing Company, 1993), 35-65.

with unguided laws is seriously problematic as an explanation of DNA's language/code.²⁴³

What is more (to take the previous argument a step further), if we concede for the sake of argument once again that we can explain the DNA language/code in terms of apparent chance and/or law, but now without embracing any metaphysical naturalism that may be inadvertently conjoined with the theories -- that is, we once again remain temporarily/ undogmatically agnostic with respect to the issue of whether or not there is an intelligent cause ultimately in charge of nature -- then we can see that an intelligent cause is strongly suggested. This argument is motivated here by the following comment reportedly made by Albert Einstein: "The only incomprehensible thing about the universe is that it is comprehensible."²⁴⁴ Polkinghorne translates Einstein's comment into an observation that is more helpful to our present discussion. According to Polkinghorne, "our ability to understand the physical world [e.g., the quantum realm] immensely exceeds anything that is required for the relatively banal purpose of survival."²⁴⁵ Polkinghorne adds (echoing Einstein): "it seems that our minds are so finely tuned to the structure of the universe that they are capable of penetrating its deepest secrets."²⁴⁶ The question immediately arises: What accounts for the fact that DNA's language/code directs the development of human brains into this amazing coincidence? That is to ask: What accounts for this exquisite fine-tuning of the DNA code? In view of the fact that chance and unguided law have trouble explaining this, and in view of the fact that the intelligent cause hypothesis is quite naturally suggested by the

²⁴³The seeds to Plantinga's argument can be found in C. S. Lewis's *Miracles: A Preliminary Study*, revised edition (New York: Simon & Schuster, 1960), chapter 3. For a recent look at and refurbishing of Lewis's work (which includes an interesting chapter on the philosophical exchange between Lewis and Elizabeth Anscombe), see Victor Reppert, *C. S. Lewis's Dangerous Idea: In Defense of the Argument from Reason* (Downers Grove, Illinois: InterVarsity Press, 2003).

²⁴⁴Albert Einstein; cited in John Polkinghorne, *Serious Talk: Science and Religion in Dialogue* (Valley Forge, Pennsylvania: Trinity Press International, 1995), 4.

²⁴⁵John Polkinghorne, *Beyond Science: The Wider Human Context* (Cambridge: Cambridge University Press, 1996; Canto edition, 1998), 79.

²⁴⁶Polkinghorne, *Beyond Science*, 80.

phenomena, a reasonable explanation is, as Polkinghorne points out, the intelligent cause hypothesis.²⁴⁷

Thus, because of the positive evidence for deep mind affinity combined with the very apparent inability of alternative explanations to explain away this deep mind affinity, the design explanation of DNA's language/code is reasonable to hold.

VI. A Cumulative Case

At this juncture, the previous arguments of this chapter will be consolidated into the form of a cumulative case argument. This argument *makes it reasonable to believe* that a very powerful, transcendent, and intelligent causal source of matter/energy exists.²⁴⁸ It should be emphasized that in a cumulative case

²⁴⁷Polkinghorne, *Beyond Science*, chapter 6. Actually, Polkinghorne appeals to the God hypothesis, and he does so to explain the fine-tuning of the human mind plus several other phenomena. I am weakening Polkinghorne's conclusion (by appealing merely to an intelligent cause) since I am only using part of his argument. Polkinghorne's argument (and my slight variation of it by connecting it to DNA's instructions) is also known as the argument from reason. For further discussion of the argument from reason, see Lewis, *Miracles*, chapter 3, and Reppert, *C. S. Lewis's Dangerous Idea*. See too the following essays which comprise a recent symposium on this topic: Victor Reppert, "Several Formulations of the Argument from Reason," *Philosophia Christi* 5:1 (2003): 9-33; Theodore M. Drange, "Several Unsuccessful Formulations of the Argument from Reason: A Response to Victor Reppert," *Philosophia Christi* 5:1 (2003): 35-52; William Hasker, "What About a Sensible Naturalism?" *Philosophia Christi* 5:1 (2003): 53-62; Keith Parsons, "Need Reasons Be Causes?" *Philosophia Christi* 5:1 (2003): 63-75; and Victor Reppert, "Critics Are Wrong: A Reply to Drange, Parsons, and Hasker," *Philosophia Christi* 5:1 (2003): 77-89.

It might be argued against Plantinga and Polkinghorne that correct physical theories have long-term survival value for the human race because those theories help us control ecology and explore space to defeat overpopulation problems on earth, and so in this way the human mind has evolved with all of its finely-tuned capacities for penetrating nature's deepest secrets. In reply, it should be acknowledged that it is true that correct physical theories have long-term survival value for humans. However, it should also be noted that, according to evolutionary theory, mere immediate survival value is the engine that drives the evolutionary process (especially the neo-Darwinian evolutionary process). In addition, it should be pointed out that the huge leap in brain development, from functioning well in terms of mere immediate survival at the cockroach/ape-level to functioning well with an IQ of a David Zuzuki or an Albert Einstein, would have occurred much, much earlier than needed by the environmental selection pressures which arise much, much later – which is *very odd* on the evolutionary/ survivalist view.

²⁴⁸According to Adam Morton, a *reasonable* or *rational belief* is "a belief acquired by sensible and clear thinking, which considers possible objections and counter-evidence" (Adam Morton, *A Guide through the Theory of Knowledge*, 3rd edition [Oxford: Blackwell Publishers, Ltd., 2003], 182).

argument each sub-argument need not support the main conclusion conclusively: in fact, each sub-argument can be fairly weak on its own -- indeed, the evidence on which the sub-argument is based may only *suggest* the conclusion. A cumulative case argument gains its rational cogency from a combination of (1) the varying strengths of each of the case's individual sub-arguments plus (2) the *convergence* of the independent sub-arguments in their support for the same conclusion.²⁴⁹ Now, recall that chapter 3's argument made it reasonable to believe that the universe has a very powerful and transcendent cause. Recall too from the beginning of the present chapter that the apparent fine-tuning at the beginning of the universe for the conditions needed for the development of intelligent human life when coupled with chapter 2's thesis (that it is reasonable to believe that intelligent human life has objective moral value) constitutes evidence of intelligent design, thereby making it reasonable to believe that the universe's cause is intelligent. Also, recall that chapter 2's thesis coupled with the cell's complex biochemical molecular machines and the cell's DNA language/code also constitute evidence for intelligent design, thereby making it reasonable to believe that the universe's cause is intelligent. Even though other explanations are not ruled out conclusively, although serious doubt was cast upon them, on the basis of the individual strengths of the previous arguments plus those arguments' convergence onto our conclusion it is reasonable to believe that the universe has a very powerful, transcendent, and intelligent causal source of matter/energy.

²⁴⁹For brief overviews on the nature of cumulative case arguments (also known as arguments to a good explanation), see: Richard Swinburne, "Evidence for God," in Terry Miethe & Antony Flew, *Does God Exist? A Believer and an Atheist Debate* (San Francisco: Harper Collins, 1991), 229-230; and Samir Okasha, *Philosophy of Science: A Very Short Introduction*, Very Short Introductions series (Oxford & New York: Oxford University Press, 2002), 29-33. For a more in-depth treatment, see Peter Lipton, *Inference to the Best Explanation*, Philosophical Issues in Science Series, series edited by W. H. Newton-Smith (London & New York: Routledge, 1991).

VII. Conclusion

In this chapter the thesis that there exists a very powerful, transcendent and *intelligent* causal source of matter/energy was defended. The defence consisted of a cumulative case argument which appealed to the theses of chapters 2 and 3 plus the following three clues discovered by contemporary science: (1) the apparent fine-tuning at the beginning of the universe for the conditions needed for the development of intelligent human life; (2) the complex biochemical molecular machines that constitute the living cell; and (3) the language/code in DNA. The concept of intelligent design was clarified, and the legitimacy of explanation by intelligent cause was defended. It was argued that clue 1 when supplemented with the thesis from chapter 2 (that it is reasonable to believe that intelligent human life has objective moral value) constitutes evidence for a sign of intelligence. It was argued that clues 2 and 3 when taken with the thesis from chapter 2 constitute evidence for signs of intelligence too. And it was argued that when chapter 2's thesis is taken with clues 1, 2, and 3, plus chapter 3's argument for a very powerful and transcendent cause of the universe, we have a cumulative-case argument which makes it reasonable to believe that a very powerful, transcendent, and intelligent causal source of matter/energy exists.

In the next chapter it will be argued that the very powerful and intelligent matter/energy source which somehow exists beyond the universe and has very apparently caused the universe to come into being displaying marks of intelligence seems very much to be an instance of the concept of miracle "writ large." It will be argued that this analogy enhances the plausibility of the occurrence of a miracle, i.e., a miracle which occurs in human history, a miracle "writ small."

Chapter 5

A PLAUSIBILITY STRUCTURE FOR MIRACLES

The metaphysical implications of the reformulated miracle concept as background knowledge

I. Introductory Remarks

The thesis of this dissertation is that on the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications -- when examined in the context of some implied/ predicted findings from contemporary science plus some implied/ predicted discernments from moral philosophy -- serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity or power to make sense of some facts which suggest such an operation. Recall that the overall defence of this thesis consists of the following: A case is made for thinking that the concept of miracle (in a specified sense) in effect points to certain aspects of the world which, as it turns out, can be discerned by contemporary science and moral philosophy; then, taking a cue from the fact that a scientific theory gains scientific respectability when its predictions/implications are confirmed/satisfied, it is argued that the fact that these predicted/implied aspects of the world have been uncovered serves to add plausibility to a hypothesis which employs miracle. (Notice that we are not starting from these aspects of the world to derive a concept of miracle. Rather, analysis of the use of "miracle" in the case of the putative ones in the New

Testament contains features which can be discerned to be also present in the world as a result of the moral and scientific analyses offered in previous chapters.) In more detail, the defence of this dissertation's thesis consists of the following. In chapter 1, a particular sense of the concept of miracle (a.k.a. miracle sense 6) was clarified. An event is a miracle if and only if: (1) it is extraordinary or unusual with respect to the regular course of nature in the sense that the event's occurrence is beyond nature's capacity to produce; (2) it consists of an introduction or coming into being of complex specifically structured matter/energy; (3) it is directly caused by a very powerful, nature-transcending and intelligent causal source of matter/energy, i.e., God or a God-like being; and (4) it has religious significance. Also in chapter 1, some moral and metaphysical implications of miracle (sense 6) were discerned as well. Miracle (sense 6) logically implies/ predicts the following: (1) that intelligent human beings have objective moral value; (2) that a physical creation can come into being, caused, out of the non-physical realm; and (3) that there exists a very powerful, physically transcendent, and intelligent being who can produce highly complex specifically-structured, intelligence-displaying physical creations. Chapters 2, 3, and 4 then looked at some evidence to which the moral and metaphysical implications of the concept of miracle pointed. In chapter 2, the thesis that intelligent human beings have objective moral value was defended. In chapter 3, the thesis that there is a very powerful, transcendent causal source of matter/energy which or who can produce physical stuff was defended. In chapter 4, the thesis that there exists a very powerful, physically transcendent, *and* intelligent being who can produce highly complex specifically-structured, intelligence-displaying physical creations was defended. Given the work done in the previous four chapters, and given the assumptions of this dissertation, especially those concerning some specific historical testimony/evidence which is suggestive of the miraculous, in chapter 5 -- the present chapter -- the aim is to make a case for thinking that the plausibility of a miracle's occurrence is enhanced because it (the miracle) logically implies/predicts the universe's existence as a miracle on a grand scale, a miracle writ large.

Jesus' alleged resurrection will be used as a test case in this chapter because, as was noted in the

introduction to this dissertation (and as will be discussed in a bit more detail later in this chapter), it is important to many people (Hume included), there is some good publicly available evidence for it, and it smacks of the miraculous. Jesus' alleged resurrection will be used as a test case in this chapter too because, as Antony Flew points out, and as was also pointed out in the introduction to this dissertation, "the question whether . . . Jesus did [physically] rise from the dead is of supreme theoretical and practical importance. For the knowable fact that [Jesus] did [literally resurrect], if indeed it is a knowable fact, is the best, if not the only, reason for accepting that Jesus is the God of Abraham, Isaac, and Israel."¹ In other words, if we were to know or find it reasonable to believe that Jesus' miraculous resurrection actually occurred, then that knowledge or belief would go some way to provide grounds for thinking -- taking on faith -- that Jesus is God incarnate miraculously born of the virgin Mary, as reported by the New Testament.² As mentioned previously, Thomas Aquinas seems to have had this idea about miracles in mind when he wrote the following passage:

In the words of the saints the Incarnation is the miracle of miracles, because it is greater than all other miracles, and because all other miracles are ordered to it. For this reason not only

¹Antony Flew, in Gary R. Habermas & Antony Flew, *Did Jesus Rise from the Dead? The Resurrection Debate*, edited by Terry L. Miethe (San Francisco: Harper & Row, 1987), 3. As mentioned in the introduction to this dissertation, by "reason" Flew and I mean *objective reason*, a reason that is grounded in the extra-mental physical world -- is public in nature -- and is not merely a subjective revelation (i.e., it is not revealed by God directly to the individual's mind). This is not to say that God, if God exists, cannot or does not provide revelations directly. It very much seems, however, that revelations alleged to come directly from God to one's mind need to be checked against the evidence of the world, to see if they match up with what God may have revealed in the world objectively, and so thereby avoid false revelations (due, say, to self-delusion, or demonic deception, if demons exist). At any rate, the possibility of direct revelations from God, though important, is not a subject of interest here.

As mentioned in the dissertation's introduction too, arguably, Flew's claim that Jesus' resurrection would provide "the best" reason for accepting Jesus' claims can be contested. For example, perhaps Flew could ask that Jesus create a cloud formation which appears once a year, only on Flew's birthday, and spells out "God loves you -- Yes you, Antony Flew!" Perhaps, then, it should be noted that Flew does not seem to be comparing Jesus' resurrection to all possible signs or reasons that God might provide. That is, Flew does not seem to be taking Jesus' resurrection to be the best of all possible signs or reasons. Rather, Flew seems merely to be looking at the evidence that the Christian faith actually offers. Of *that* evidence, Jesus' resurrection is the best publicly-accessible reason for accepting (or at least for considering accepting) Jesus' claims.

²See Luke 1:26-38, John 1:1-14, and John 20:24-31.

does it lead us to believe in other articles of faith, but other miracles lead us to believe in it: since nothing prevents one miracle from leading to faith in another....³

The miracle that can be seen, the resurrection, allows one to take on faith the truth of the teaching that a miracle that cannot be seen, the virgin birth, occurred -- and these allow one to take on faith the miracle of the Incarnation.⁴

³Thomas Aquinas, *Quaestiones Disputatae de Potentia* 6.2, translated by the English Dominican Fathers, under the title *On the Power of God* (London: Burns, Oates & Washbourne Ltd., 1933), 167. Aquinas does not understand the creation to be a miracle; more on this later in this chapter. In the view of this dissertation's author, which includes the universe's creation as a miracle, the miracle of the Incarnation would still seem to be the greater of all other miracles, since it seems much more significant and marvelous that the universe's creator enters into the creation in the likeness of a creature rather than merely creating the universe and leaving it at that. For further discussion of the significance of the Incarnation, see Adrian Hastings, "Incarnation," in *The Oxford Companion to Christian Thought*, edited by Adrian Hastings, Alistair Mason & Hugh Pyper (Oxford & New York: Oxford University Press, 2000), 321-324.

⁴As was also mentioned in the introduction to this dissertation, the concept of Incarnation will be assumed to be logically coherent. For some defences of the logical coherence of the concept of Incarnation, see: C. Stephen Evans, "Is the Incarnation Logically Possible?", in *The Historical Christ & The Jesus of Faith* (Oxford & New York: Clarendon Press, 1996), 116-136; J. P. Moreland & William L. Craig, "Christian Doctrine II: The Incarnation," in *Philosophical Foundations for a Christian Worldview* (Downers Grove, Illinois: InterVarsity Press, 2003), 597-614; Thomas V. Morris, *The Logic of God Incarnate* (Ithaca, New York: Cornell University Press, 1986); Thomas D. Senior, "The Incarnation and the Trinity," in *Reason for the Hope Within*, edited by Michael J. Murray (Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1999), 238-260; Richard Swinburne, "The Possibility of Incarnation," in *The Christian God* (Oxford: Oxford University Press, 1994), 192-215. For some criticisms of the concept of the Incarnation, see: Michael Martin, *The Case Against Christianity* (Philadelphia: Temple University Press, 1991), chapter 5. As mentioned in the introduction too, the logical coherence of the concept of God or God-like being is an assumption of this dissertation. For a defence of this assumption, see: Richard Swinburne, *The Coherence of Theism* (Oxford: Clarendon Press, 1977); Charles Taliaferro, *Contemporary Philosophy of Religion*, Contemporary Philosophy series (Oxford: Blackwell, 1998), chapters 3-6; Charles Taliaferro, "The Possibility of God: The Coherence of Theism," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 239-258; Ronald H. Nash, *The Concept of God: An Exploration of Contemporary Difficulties with the Attributes of God* (Grand Rapids, Michigan: Academie/ Zondervan, 1983); and Stephen T. Davis, "God's Actions," in *In Defense of Miracles: A Comprehensive Case for God's Action in History*, edited by R. Douglas Geivett & Gary R. Habermas (Downers Grove, Illinois: InterVarsity Press, 1997), 163-177. In addition, as also mentioned in the introduction, the concept of a miraculous resurrection is an assumption of this dissertation as well. On this, see Peter van Inwagen, *The Possibility of Resurrection* (Boulder, Colorado: Westview Press, 1998).

As was mentioned previously (and will be repeated here for emphasis), my interest in the plausibility of the occurrence of miracles such as Jesus' resurrection is not due to an apologetic concern. My interest stems from a long and deeply held concern to seek the truth on this matter. This is not to say that the answering of the question in a positive way does not have apologetic value, for it surely does (as would a negative answer

To achieve the aim of this chapter, which is to make a case for thinking that the plausibility of a miracle's occurrence is enhanced, given the assumptions of this dissertation, given the work done in the previous four chapters, and given some specific historical testimony/evidence which smacks of the miraculous, the following steps will be taken. First, what it means to say that a hypothesis is plausible will be clarified. The notions of antecedent plausibility and subsequent plausibility will be examined. Also, as a part of this examination, the criteria that make a hypothesis a good explanation will be looked at, all the while keeping in mind that the philosophical and scientific legitimacy of the intelligent cause/ intelligent agency hypothesis has been defended in chapter 4, section III. (The legitimacy of the intelligent cause hypothesis is emphasized here to ward off the possible objection that the criteria of plausibility assessment employed in this chapter apply only to *scientific* explanatory frameworks, where "scientific" is understood to mean *wholly naturalistic* in the sense that a very powerful, transcendent and intelligent cause is to be kept out of the pool of reasonable explanatory possibilities.) Second, it will be argued that some findings of the previous chapters -- i.e., the universe's coming into being, caused and displaying marks of intelligence, and thus very apparently produced by a very powerful and seemingly intelligent matter/energy source which somehow exists beyond the universe -- seem very much to present us with an instantiation of a miracle on a grand scale, a miracle writ large. Third, it will be argued that this miracle writ large, by virtue of its existence and its being implied/ predicted ("retrodicted") by a miracle writ small, enhances the plausibility of the latter miracle hypothesis which is used to explain some particular historical facts. As a part of this discussion, some of the historical facts having to do with Jesus' alleged resurrection will be presented and the resurrection hypothesis will be defended. As a part of this discussion too, various objections from Martin Curd, Evan Fales, Antony Flew, David Hume, Michael Martin, John Stuart Mill, Jan Narveson, Christine Overall, and Ernst Troeltsch will be considered and found not to undermine this dissertation's thesis.

would have apologetic value for, say, an atheist view). Still, my primary concern in this dissertation is *truth-seeking*, not the doing of apologetics.

II. Clarifying Plausibility

The notion of plausibility as a criterion of hypothesis assessment seems to have two senses -- *antecedent plausibility* and *subsequent plausibility* -- and, as will become clear, these senses are applied to a hypothesis in two stages. (It should be pointed out here that the borders between the two senses of plausibility and the order of their application are not hard and fast. Nevertheless, maintaining the distinctions in this brief examination is helpful for coming to grips with the overall notion of plausibility.)⁵

In the first stage of application, the criterion of plausibility in the sense of *antecedent* or *initial* plausibility puts a hypothesis into the available pool or repertoire of serious possible explanations; antecedent or initial *implausibility* takes it out. The criterion of initial plausibility distinguishes the main contending hypotheses from the vast majority -- a possibly infinite number -- of logically possible hypotheses.⁶ In applying the criterion of initial plausibility, one should ask of the hypothesis under consideration, as Jill

⁵Much of what follows is from Peter Lipton, *Inference to the Best Explanation*, Philosophical Issues in Science Series, edited by W. H. Newton-Smith (London & New York: Routledge, 1991) and Peter Lipton, "Inference to the Best Explanation," in William H. Newton-Smith, *Companion to the Philosophy of Science*, Blackwell Companions to Philosophy (Malden, Massachusetts: Blackwell Publishers, 2000), 184-193. Also taken into consideration will be some work from Paul Thagard, "The Best Explanation: Criteria for Theory Choice," *The Journal of Philosophy* 75 (1978): 76-92. For an overview of the contemporary philosophical understanding of explanation in science, see William H. Newton-Smith, "Explanation," in William H. Newton-Smith, *Companion to the Philosophy of Science*, Blackwell Companions to Philosophy (Malden, Massachusetts: Blackwell Publishers, 2000), 127-133. See too Stathis Psillos, *Causation & Explanation*, Central Problems of Philosophy, series edited by John Shand (Montreal & Kingston: McGill-Queen's University Press, 2002).

⁶That there is an infinite number of rivals to some hypothesis or set of hypotheses may seem to be questioned by Philip Kitcher. According to Kitcher, "Against the background of prior practice [of some scientific field] there may be only a finite set of serious possibilities." (Philip Kitcher, *The Advancement of Science: Science without Legend, Objectivity without Illusions* [New York & Oxford: Oxford University Press, 1993], 247.) Kitcher's comment, however, seems to arise out of coupling the second sense (and stage of application) of the notion of plausibility with the first. The second sense of plausibility has more to do with a particular case and scientific practice having to do with that particular case whereas the first sense has more to do with broader background knowledge. This should become clearer after my discussion of the second sense. Also, Kitcher's view may also serve to underscore my parenthetical comment above that the distinction between the senses and between the applications of plausibility are not hard and fast.

LeBlanc asks: "Does it fit with what you know about the world?"⁷ In other words, to determine the initial plausibility of a hypothesis, we look at the hypothesis in a preliminary way, assessing it in terms of our background knowledge. According to Behan McCullagh, "For a hypothesis to be implausible, our present knowledge of the world must imply that it is probably false."⁸ Indeed, if some hypothesis does not fit with what we know about the world, i.e., it contradicts relevant established theory, then that hypothesis is dismissed as maximally improbable -- its prior probability is virtually zero, if not actually zero.⁹ Otherwise, the hypothesis becomes one of the several (perhaps many) contenders. Wesley Salmon adds: "If the prior probability of a hypothesis is virtually zero, a confirming instance supplies virtually no support for the hypothesis. Otherwise, a confirming instance may supply a significant amount of weight."¹⁰

In the second stage of the application of the criterion of plausibility, that is, the application of plausibility in its second sense -- *subsequent* plausibility -- one of the contending hypotheses (that were gotten into the pool via those hypotheses' initial plausibility) is discerned as the *best* explanation, that is, as the *most plausible* explanation.¹¹ This hypothesis receives the accolades of superlativeness because of its overall comparatively greater virtues as a good explanation of the particular evidence, i.e, the specific foreground data, which is to be explained. What, then, are the virtues or criteria of a good explanation? Paul Thagard very helpfully sets out the following three: (1) consilience, (2) simplicity, and (3) analogy.¹² For the sake of

⁷Jill LeBlanc, *Thinking Clearly: A Guide to Critical Reasoning* (New York & London: W. W. Norton & Company, 1998), 149.

⁸C. Behan McCullagh, *Justifying Historical Descriptions* (Cambridge: Cambridge University Press, 1984), 27.

⁹Of course, if a hypothesis is logically contradictory, then it should be dismissed as logically impossible.

¹⁰Wesley C. Salmon, *Logic*, 3rd edition, Foundations of Philosophy Series, series edited by Elizabeth Beardsley, Monroe Beardsley, & Tom L. Beauchamp (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1984), 136.

¹¹Lipton, *Inference to the Best Explanation*, 1-5 & 56-74.

¹²Thagard, "The Best Explanation: Criteria for Theory Choice," 76-92.

clarity, each criterion will be looked at briefly.

Before looking at these criteria, however, it should be noted that, in spite of the relatively early date of Thagard's work (1978), his criteria are not out of date. Thagard's criteria -- especially consilience -- incorporate the salient features of the two present competing views of what makes a good scientific explanation good (these competing views also incorporate simplicity and analogy). Referring to the two competing views of good scientific explanation, Yuri Balashov and Alex Rosenberg point out, "One view [Philip Kitcher's] is that explanation is scientific and scientifically warranted if it *unifies* disparate phenomena under a small number of principles."¹³ Balashov and Rosenberg also point out that "Its leading competitor [Wesley Salmon's view] relates scientific explanation to identifying the *causes* which bring about the phenomenon to be explained."¹⁴ Balashov and Rosenberg add: "Salmon's and Kitcher's approaches to explanation are not necessarily mutually exclusive. Indeed, there are strong reasons to believe that successful unification of phenomena is not just an artifact of human ingenuity but provides access to the causal structure of the world."¹⁵ William Newton-Smith seems to agree: "A good explanation increases our understanding of the world. And clearly a convincing causal story can do this. But we have also achieved great increases in our understanding of the world through unification."¹⁶ Significantly, analogies between the causes of phenomena and analogies between the explanations for those phenomena add to this unification by enhancing simplicity. (More discussion of consilience, simplicity, and analogy follows below.)

It should be pointed out here and emphasized (again) that appeals to intelligent causes (agent causes)

¹³Yuri Balashov & Alex Rosenberg, "Introduction," in *Philosophy of Science*, edited by Yuri Balashov & Alex Rosenberg, Routledge Contemporary Readings in Philosophy, series edited by Paul K. Moser (London & New York: Routledge, 2002), 41.

¹⁴Balashov & Rosenberg, "Introduction," 41.

¹⁵Balashov & Rosenberg, "Introduction," 41. See also Philip Kitcher, "Explanatory Unification and the Causal Structure of the World," & Wesley C. Salmon, "Scientific Explanation: Causation *and* Unification," in *Philosophy of Science*, edited by Balashov & Rosenberg, Routledge Contemporary Readings in Philosophy, series edited by Paul K. Moser (London & New York: Routledge, 2002), 71-91 & 92-105, respectively.

¹⁶Newton-Smith, "Explanation," 130.

are very much a legitimate part of the explanatory enterprise, scientific and otherwise, as has been argued in section III of chapter 4. Keeping chapter 4's discussion in mind, that is, keeping in mind the philosophical as well as scientific legitimacy of a hypothesis which appeals to an intelligent agent such as God or a God-like being to explain natural phenomena, let us return to Thagard's three virtues or criteria of a *good* explanation: (1) consilience, (2) simplicity, and (3) analogy.

1. Consilience. According to Thagard, "A consilient theory unifies and systematizes."¹⁷ That is, "To say that a theory is consilient is to say more than that it 'fits the facts': it is to say first that the theory explains the facts, and second that the facts it explains are taken from more than one domain [i.e., from more than one class of facts]."¹⁸ In other words, as Edward O. Wilson points out, "consilience [is] literally a 'jumping together' of knowledge by the linking of facts and fact-based theory across disciplines to create a common groundwork of explanation."¹⁹ As Stathis Psillos points out, according to the consilience criterion the plausible hypothesis displays, in a word, "comprehensiveness."²⁰ Thagard adds: "Successful prediction can often be understood as an indication of . . . consilience, provided that the prediction concerns matters with which the theory used to make the prediction has not previously dealt, and provided that the prediction is also an explanation."²¹ It seems reasonable to think that the satisfaction or confirmation in the world of the

¹⁷Thagard, "The Best Explanation," 82. I will use the words "theory" and "hypothesis" interchangeably.

¹⁸Thagard, "The Best Explanation," 82. In a footnote Thagard acknowledges (rightly, I think) that "[Larry] Laudan's notion of problem solving appears similar to that of explaining classes of facts." (Thagard, "The Best Explanation," 79n.; cf. Larry Laudan, "Two Dogmas of Methodology," *Philosophy of Science* 43:4 [December 1976]: 585-597.) According to Laudan, the notion of problem solving takes two major forms: (1) empirical problem solving, and (2) conceptual problem solving. Laudan further divides conceptual problem solving into *internal* conceptual problem solving and *external* conceptual problem solving, because conceptual problems may arise *in* a theory, and they may arise *outside* of the theory, in other theories or even in worldviews. See Larry Laudan, *Progress and its Problems* (Berkeley: University of California Press, 1977).

¹⁹Edward O. Wilson, *Consilience: The Unity of Knowledge* (New York: Alfred A. Knopf, 1998), 8.

²⁰Stathis Psillos, *Scientific Realism: How Science Tracks Truth*, Philosophical Issues in Science, series edited by W. H. Newton-Smith (London & New York: Routledge, 1999), 75.

²¹Thagard, "The Best Explanation," 83.

metaphysical and moral implications/predictions of a hypothesis counts as an indication of consilience, too.

2. Simplicity. According to Thagard, "a *simple* consilient theory not only must explain a range of facts; it must explain those facts without making a host of assumptions with narrow application."²² In other words, the criterion of simplicity serves as a constraint on consilience in the sense that the explanation of the facts coming from more than one domain is not to be achieved by a proliferation of *ad hoc* hypotheses. Thagard also points out that simplicity does not necessarily preclude ontological complexity, as Ockham's razor might seem to suggest.²³ "Ontological complexity does not detract from the explanatory value or acceptability of a theory, so long as the complexity contributes toward consilience and simplicity."²⁴ J. P. Moreland, following Larry Laudan on the importance of problem-solving in science, adds: "if two theories, A and B, are empirically equivalent, and if A [which is ontologically more complex than B] solves internal or external conceptual problems better than B, then, all things being equal, A is to be preferred to B."²⁵ Thus, the theory whose ontological complexity includes an unobservable entity, whether that entity is an intelligent cause or not, need not suffer a fatal cut from Ockham.

3. Analogy. If there is an analogy between the phenomena to be explained, then that may provide a double payoff in terms of explanatory virtue. First, because there arises from two cases of analogous phenomena a suggested analogy between the explanatory hypotheses of those phenomena, the value of the explanation in the first case is increased. Thagard explains: "Suppose *A* and *B* are similar in respect to *P*, *Q*, and *R*, and suppose we know that *A*'s having *S* explains why it has *P*, *Q*, and *R*. Then we may conclude that

²²Thagard, "The Best Explanation," 87.

²³According to Simon Blackburn, Ockham's razor is "the celebrated principle of Ockham that *entia non sunt multiplicanda praeter necessitatem*: entities are not to be multiplied beyond necessity." (Simon Blackburn, "Ockham's razor," in Simon Blackburn, *The Oxford Dictionary of Philosophy* [Oxford & New York: Oxford University Press, 1994], 268.)

²⁴Thagard, "The Best Explanation," 89.

²⁵J. P. Moreland, "Theistic Science & Methodological Naturalism," in *The Creation Hypothesis: Scientific Evidence for an Intelligent Designer*, edited by J. P. Moreland (Downers Grove, Illinois: InterVarsity Press, 1994), 61-62.

B has S is a promising explanation of why *B* has *P*, *Q*, and *R*.²⁶ This is so even in cases where there are serious disanalogies.²⁷ Thagard considers Christiaan Huygens' analogies between light and sound which Huygens enlisted to support the wave theory of light.²⁸ Let *A* be sound and *B* light. Since light is like sound in respects *P*, *Q*, and *R*, but unlike sound in respect *T* and *U*, Thagard points out that "We are not actually able to conclude that *B* has *S* [i.e., waves]; the evidence is not sufficient and the disanalogies are too threatening [e.g., light is propagated in straight lines, whereas this is not the case with sound]."²⁹ Nevertheless, Thagard adds, "the analogies between *A* and *B* increase the value of the explanation of *P*, *Q*, and *R* in *A* by *S*."³⁰ Second, Thagard also points out the following:

Not only does analogy between phenomena suggest the existence of analogy between explanatory hypotheses; it also *improves* the explanations in the second case, because the first explanation furnishes a model for the second one. Explanations produce understanding. We get increased understanding of one set of phenomena if the kind of explanation used -- the kind of model -- is similar to ones already used.³¹

To buttress his case, Thagard also considers Charles Darwin's theory of evolution. Let *A* be artificial selection and *B* natural selection. Since natural selection is like artificial selection in respects *P*, *Q*, and *R*, but unlike artificial selection in respect *T* and *U*, "We are not actually able to conclude that *B* has *S* [i.e., the power to develop species]; the evidence is not sufficient and the disanalogies are too threatening [e.g., artificial selection

²⁶Thagard, "The Best Explanation," 90.

²⁷This point should be kept in mind for when (later in this chapter) we consider the cause of the universe (a miracle writ large) to also be the cause of a miraculous resurrection (a miracle writ small).

²⁸Christiaan Huygens (1629-1695) is a Dutch astronomer and physicist whose "greatest achievement" is the wave theory of light (Alan Isaacs, John Daintish & Elizabeth Martin, *Oxford Dictionary of Science*, 4th edition [Oxford & New York: Oxford University Press, 1999], 385).

²⁹Thagard, "The Best Explanation," 90.

³⁰Thagard, "The Best Explanation," 90.

³¹Thagard, "The Best Explanation," 91.

involves an intelligent agent to perform the selection, whereas this is not the case with natural selection]."³² Nevertheless, Thagard adds, "the analogies between *A* and *B* increase the value of the explanation of *P*, *Q*, and *R* in *A* by *S*."³³ Moreover, the explanation of the second set of phenomena is improved because the explanation of the first set of phenomena serves as a model.³⁴ Now, presumably, the *phenomena* to be explained could also be understood as the (physical)*facts* to be explained. So, if there are phenomenological/factual and explanatory analogies between the cases *A* and *B*, then, *even if there are some serious disanalogies*, the analogies are positive factors which contribute to our choosing as the best explanation that hypothesis which stems from these analogies.

Thagard also points out that because there are tensions among the criteria of consilience, simplicity, and analogy, their application is a "very complicated matter"; but this is not a negative reflection of the criteria, it is simply a reflection of the fact that theory evaluation typically has a "multi-dimensional character."³⁵

In view of the above, it is reasonable to think that if a hypothesis is not initially implausible, and if the hypothesis also displays the qualities of subsequent plausibility at least roughly as well as its chief competitors, then the hypothesis definitely belongs in the pool of competing explanations, if not somewhere near the strongest contenders.

³²Thagard, "The Best Explanation," 90.

³³Thagard, "The Best Explanation," 90.

³⁴Thagard, "The Best Explanation," 91.

³⁵Thagard, "The Best Explanation," 92.

III. The Universe as a Miracle Writ Large

It will now be argued that some of the findings from the previous chapters seem very much to present us with an instance of the concept of miracle writ large, that is, the universe's creation as a miracle instantiated on a grand scale. Recall that according to this dissertation's understanding of miracle (i.e., miracle sense 6), an event is a miracle if and only if: (1) it is an event that is extraordinary or unusual with respect to the regular course of nature in the sense that the event's occurrence is beyond nature's capacity to produce; (2) it consists of an introduction or coming into being of complex specifically structured matter/ energy; (3) it is directly caused by a very powerful, intelligent, and nature-transcending causal source of matter/ energy, i.e., God or a God-like being; and (4) it is religiously significant. In this section, it will be argued that, in the case of the universe's creation, the findings of the previous chapters satisfy these four necessary and jointly sufficient conditions of the concept of miracle. First, a case will be made for thinking that conditions 2, 3, and 4 are satisfied; second, a case will be made for thinking that condition 1 is satisfied. (Conditions 2, 3, and 4 will be dealt with first because they require a review from previous chapters which is directly relevant to them and which will subsequently be helpful, albeit indirectly, in dealing with condition 1; this will become more clear as this section progresses.)

A. The Satisfaction of Conditions Two, Three, and Four

To make the case for thinking that, in the case of the universe, conditions 2, 3, and 4 are satisfied, some recollections are in order, and from these recollections some inferences will be made. Recall from chapter 3 that contemporary science tells us that about 13.7 billion years ago the universe began with a big bang, that is to say, a finite time ago, physical space and time as well as matter and energy came into being. In other words, in the genesis of the universe there was an introduction or coming into being of complex specifically structured matter/energy (some of which eventually became living cells or at least their building

blocks). Hence, condition 2 is satisfied. Recall too from chapter 3 that because it is reasonable to think that whatever begins to exist has a cause (even in the quantum realm), it is also reasonable to think that the universe's beginning was caused. And, because the cause produced the entire physical universe, it is reasonable to think too that the cause is very powerful as well as transcendent (beyond the realm of physical space, time, matter and energy). Recall from chapter 4 that contemporary science strongly suggests that the universe was exquisitely "fine-tuned" at the start of the big bang for subsequent life (its later sudden creation and/or slow evolutionary development). Recall too from chapter 4 that contemporary science tells us as well that the basis of life, the cell with its molecular machines and its DNA code, consists of marvelously complex, specifically structured matter/energy. Also in chapter 4, we saw that because of these findings, especially when they were coupled with chapter 2's thesis that intelligent human beings have objective moral value, it is reasonable to think that the universe's supernatural cause is intelligent. In other words, it is reasonable to think that in the case of the universe we have a coming into being of complex specifically structured matter/energy which is directly caused by a very powerful, nature-transcending and intelligent causal source of matter/energy, i.e., God or a God-like being.³⁶ Hence, condition 3 is satisfied. Now, if the universe points quite reasonably to a causal source of matter/energy which (who) transcends space and time, is very powerful, and is intelligent, then surely the universe is religiously significant, at least in a broad sense. After all, the universe, like a miracle, a sign, points beyond itself, very apparently to a God-like being, a Designer-Creator. The universe has religious meaning in the sense that it points to a Being who is in Himself and in His action deeply relevant to religion. (The doctrine of a God or God-like being who is the universe's Designer-Creator is very much at the doctrinal core of several major religious belief systems: e.g., Judaism, Christianity, Islam.) Also, because the universe is required for the instantiation of intelligent human beings, beings who have objective moral value, the universe's religious significance includes moral significance (albeit of an indirect

³⁶Recall that this God-like being could even be a "Bubble Blower" who evolved on one of the immensely larger and older universes of the trillions of bubble universes, if multiple universe theory is conceded for the sake of argument (see chapter 4).

sort). Hence, condition 4 is satisfied, too.

Now, before moving to condition 1, a possible objection concerning condition 4 should be addressed. One might object as follows: The universe's creation simply cannot be religiously significant -- after all, there were no religions around at the time of the universe's creation, nor were there any observers for whom the event is supposed to be a sign. In reply, it must be admitted that there were certainly no religions around at the time of the creation event, nor were there observers (apart from any God-like beings such as God and/or, say, angels). But so what? Surely, an object or event can be a religiously meaningful sign even though there were no religions at the time of its occurrence and *human* observers could only come onto the scene later to read it. Recall (from chapter 4) Del Ratzsch's hypothetical meteorite shower that results in a crater pattern on the moon which reads "John 3:16."³⁷ Let us suppose that the shower occurred a few million years ago. And let us suppose that God caused the meteorites to hit the moon as they did. Clearly, no human observers were on the scene when the sign was made. Clearly, too, no religions were around either. Nonetheless, even though human observers could only read the sign sometime after Galileo's telescope was operational, and even though people and religion came on the scene millions of years after the meteorite shower, the "John 3:16" crater pattern is a sign, a sign that surely is significant for religion (especially the Christian religion). The same can be said for the universe's coming into being. No human observers were on the scene when the big bang occurred, nor were there any religions. Nevertheless, 13.7 billion years after the universe's beginning human beings were able to observe the evidence for the big bang, the evidence for the "fine-tuning," etc., and discern -- "read" -- the philosophical/ religious significance. Thus, condition 4 remains satisfied.

³⁷Del Ratzsch, *Nature, Design, and Science: The Status of Design in Natural Science*, SUNY Series in Philosophy and Biology, series edited by David Edward Shaner (Albany, New York: State University of New York Press, 2001), 63. Recall too that the proper name and numbers "John 3:16" refer to the New Testament verse which is purportedly a record of Jesus' central teaching: "For God so loved the world that he gave his one and only Son [i.e., Jesus], that whoever believes in him shall not perish but have eternal life." (Ratzsch's crater example was used in chapter 4 to show that a highly improbable instantiation of an independently specifiable pattern is not a necessary condition for intelligent design. Given the initial conditions and the laws of nature at the big bang, and given physical determinism for the sake of argument, the crater pattern is physically necessary and hence highly probable, yet it clearly displays deep mind affinity.)

B. The Satisfaction of Condition One

To make the case for thinking that the universe's coming into being satisfies condition 1 (the requirement that a miraculous event is one that is extraordinary with respect to the regular course of nature in the sense that the event's occurrence is beyond nature's capacity to produce), an objection from Aquinas will be considered and then a reply will be given to that objection. According to Aquinas, "Creation and the justifying of the sinner, while they are acts of God alone, are strictly speaking not miracles, because they are acts not meant to be accomplished by other causes. Thus they do not occur as exceptions to the pattern in nature, since they are not part of that pattern."³⁸ In view of the fact (as was discussed in chapter 1) that Aquinas allows for some events to be miracles even though they could not have been accomplished by other natural causes, and so are acts not meant to be accomplished by other causes (e.g., miracles that are "done above" nature, wherein "God produces an effect which nature is wholly incapable of producing"³⁹), we can interpret Aquinas's main point in the above passage as the claim that a necessary requirement for an event to be a miracle is that it occurs as an exception to nature's regularity or pattern, a requirement that the creation of the universe fails to satisfy. Elsewhere Aquinas writes: "Now the most hidden cause and the furthest removal from our senses is God who works most secretly in all things: wherefore those effects are properly called miracles, which are produced by God's power alone on things which have a natural tendency to the opposite effect or to a contrary mode of operation"⁴⁰ Here Aquinas could be understood as taking all

³⁸St. Thomas Aquinas, *Summa Theologiae*, Blackfriars edition, Volume 14 (London & New York: Eyre & Spottiswoode/ McGraw-Hill Book Company, 1975), 1a.105.7.

³⁹St. Thomas Aquinas, *Quaestiones Disputatae de Potentia*, translated by the English Dominican Fathers, under the title *On the Power of God* (London: Burns, Oates & Washbourne Ltd., 1993), 6.2, Reply to Third Objection. In St. Thomas Aquinas, *Summa Contra Gentiles*, translated by Vernon J. Bourke, under the title *On the Truth of the Catholic Faith* (New York: Doubleday and Co., 1956), 3.101.2, Aquinas says that "the highest rank among miracles is held by those events in which something is done by God which nature never could do."

⁴⁰Aquinas, *On the Power of God*, 6.2.

miracles as those that are "done against" nature.⁴¹ As we saw in chapter 1, for Aquinas, "A miracle is *contrary* to nature, when nature retains a disposition contrary to the effect produced by God."⁴² Keeping in mind that Aquinas's other two classifications, those "done above" and those "done without" nature,⁴³ do not necessarily preclude a miracle from also being classified as "done against" nature (in the sense that nature retains its dispositions even though those disposition may be deflected by the introduction of something new), what Aquinas seems to be saying is that for an event to be a miracle it requires a natural background or foil against which it can be seen to be unusual or extraordinary, but the coming into being of the universe does not have a foil. So, on this objection, the coming into being of the universe cannot be a miracle -- because condition 1 cannot be satisfied.

Two replies seem to render this objection impotent. (Of these two replies, the second seems stronger than the first, although the first has merit.)

Reply 1: One might argue that the coming into being of the universe has a foil in the sense that the universe's coming into being is an instance of (as was mentioned in the previous chapter) what Ratzsch calls "quasi-counterflow."⁴⁴ Ratzsch holds that when an intelligent agent (such as a human being) acts on nature the action occurs against the regular course or "flow" of nature, and so exhibits "counterflow."⁴⁵ According to Ratzsch, "*counterflow* refers to things running contrary to what, in the relevant sense, *would* (or *might*) have resulted or occurred *had* nature operated freely," that is, had nature operated without agent intervention.⁴⁶ In the case of the universe's creation, however, the background "flow" is taken to be the alternatives to the

⁴¹Aquinas, *On the Power of God*, 6.2, Reply to the Third Objection.

⁴²Aquinas, *On the Power of God*, 6.2, Reply to the Third Objection.

⁴³Aquinas, *On the Power of God*, 6.2, Reply to the Third Objection.

⁴⁴Ratzsch, *Nature, Design and Science*, 54.

⁴⁵Ratzsch, *Nature, Design and Science*, 4ff.

⁴⁶Ratzsch, *Nature, Design and Science*, 5.

universe's creation (i.e., possible universes which could have been made or zero universes) which could have been chosen by the creator or could have simply been the case.⁴⁷ Quasi-counterflow, then, is the counterflow that occurs in the establishment of nature in the sense that the initial conditions and laws are selected from the alternatives (e.g., nonintelligent life permitting alternatives or zero universes) that could have been the case or selected. In the case of a single universe scenario, the flow prior to quasi-counterflow would consist of "ongoing" noncreation of possible universes. In this case, the actualized universe contrasts with an otherwise permanent state of unchanging non-physicality. Mathematically, this could be illustrated by a set consisting of the number 1 standing in contrast with the null set. In the case of a many-universes scenario, the flow prior to quasi-counterflow would consist of a vast number of universes that do not permit intelligent life. Mathematically, this could be illustrated as a set consisting of the number 1 standing in contrast with the remaining set of positive integers. Condition 1, then, would be satisfied, although the regular course of "nature," to which the universe's creation is an exception, is understood broadly, as a *quasi-nature*.

Reply 2: On the other hand, if we have no good knowledge of the broader goings-on at the creation event, the fact remains that, with Augustine and Aquinas, we still *wonder* at the universe's coming into being, as we do with a miracle within the universe, and this wonder seems to lead us to a solution of our problem. Why do we wonder at the universe's coming into being? It seems that our wonder stems from our evidence for the universe's coming into being contrasting with our evidence for the present existence and ongoing regular operation of the physical world. Our investigations of the physical world inform us that, in general, specific physical events have specific physical or natural causes. As a result, we wonder at any physical event which occurs without a wholly physical or natural cause, whether such an event occurs in an already up and running nature or such an event *is* the coming into being of that nature. The realm of the ordinary, then, is the present existence and ongoing operation of the physical world, and this ordinary realm is the foil for the extraordinary -- that is, the foil for specific small-scale miracles such as, say, Jesus' multiplication/creation

⁴⁷Ratzsch, *Nature, Design and Science*, 53-54.

of bread and fish⁴⁸ and for the large-scale miracle of the creation of the universe.⁴⁹

C. Sub-Conclusion

Therefore, the coming into being of the universe seems very much to satisfy the four conditions of miracle (sense 6), and so it seems very much to be a miracle on a grand scale -- a miracle writ large.⁵⁰

IV. Miracle Writ Large Enhances the Plausibility of Miracles Writ Small

It is the contention of this dissertation that the very apparent analogous nature of the universe vis-à-vis miracle (sense 6) enhances the plausibility of the occurrence of a specific smaller miracle, given good evidence for the smaller miracle's alleged occurrence, i.e., good evidence for the occurrence of its physical aspects, which smack of (strongly suggest) a supernatural cause. To defend this contention, the following will be done. First, we will look briefly at the miraculous resurrection hypothesis as an explanation of some generally

⁴⁸See Mark 6:30-44 and Mark 8:1-10.

⁴⁹This is not to say that the counterflow is a violation of nature's regular operation; it merely contrasts with nature's regular operation, as, say, my shouting in a quiet movie theatre contrasts with the previously ongoing peace.

⁵⁰Stephen Mumford also takes the creation itself to be a miracle, because, according to Mumford, a miracle is any natural event with a supernatural cause (an originating cause). See Stephen Mumford, "Miracles: Metaphysics and Modality," *Religious Studies* 37 (2001): 192, 200. Interestingly, Mumford allows any supernatural cause -- including "a supernatural 'machine'" -- to be appropriately understood as the cause of a miracle (Mumford, "Miracles," 192). Perhaps, then, if determinism is true in the supernatural realm, and if metaphysical libertarian freedom is a false doctrine, and if compatibilism is true, it would seem that the transcendent, very powerful, apparently intelligent causal source of matter/ energy could be some sort of intelligent machine too, governed by supernatural laws.

Mumford does not take the goodness of a miracle as a part of (implied by) the definition of miracle. Mumford allows for this possibility, but does not take it seriously because the main purpose of his essay is merely to show that miracles (as defined above) are logically and metaphysically possible and to do this does not require that goodness be a part of the miracle concept. (In the present dissertation, an attempt is being made to show that miracles are *plausible*, not merely *possible*.)

accepted historical facts concerning Jesus of Nazareth which seem very much to suggest that hypothesis. Second, it will be shown that, on the basis of this chapter's earlier discussions of plausibility and of the universe as miracle writ large, what is needed to make the miraculous resurrection hypothesis plausible is readily available. Third, some objections will be considered and refuted.

A. Some Facts Concerning Jesus' Alleged Resurrection

In this section, some facts that strongly suggest Jesus' miraculous resurrection will be set out, the fit of some non-miracle hypotheses will be briefly examined, and a preliminary look at the fitness of Jesus' allegedly miraculous resurrection will be taken.

As was noted in the introduction to this dissertation, G. R. Habermas has very helpfully set out a list of some very important, generally-accepted historical evidence for the occurrence of Jesus' resurrection.⁵¹ Reporting on contemporary New Testament scholarship, Habermas points out that "There are a minimum number of facts agreed upon by practically all critical scholars, whatever their school of thought. At least *twelve* separate facts are considered to be knowable history."⁵² Of these facts, there are *three* that "are even

⁵¹For some very recent defences of the historical evidence for the occurrence of Jesus' resurrection, defences which support Habermas's work, see Richard Swinburne, *The Resurrection of God Incarnate* (Oxford & New York: Clarendon Press, 2003), especially chapters 9-11; and N. T. Wright, *The Resurrection of the Son of God*, Christian Origins and the Question of God, Volume 3 (Minneapolis: Fortress Press, 2003). For Habermas's findings, see Gary R. Habermas, *The Historical Jesus: Ancient Evidence for the Life of Christ* (Joplin, Missouri: College Press, 1996), 58ff. See too: Habermas & Flew, *Did Jesus Rise From the Dead? The Resurrection Debate*, edited by Terry L. Miethe (San Francisco: Harper & Row, 1987), 19-20; and Gary R. Habermas, "The Resurrection Appearances of Jesus," in *In Defense of Miracles: A Comprehensive Case for God's Action in History*, edited by R. Douglas Geivett & Gary R. Habermas (Downers Grove, Illinois: InterVarsity Press, 1997), 262-275. For some critical discussion of the Jesus Seminar (a relatively small and fringe group of scholars whose work attempts to cast skepticism onto the life and teachings of Jesus), see: Gregory A. Boyd, *Jesus Under Siege* (Wheaton, Illinois: Victor Books/ SP Publications, 1995); Gregory A. Boyd, *Cynic Sage or Son of God? Recovering the Real Jesus in an Age of Revisionist Replies* (Wheaton, Illinois: Victor Books/ SP Publications, 1995); and Michael J. Wilkins & J. P. Moreland, editors, *Jesus Under Fire: Modern Scholarship Reinvents the Historical Jesus* (Grand Rapids, Michigan: Zondervan, 1995).

⁵²Habermas, *The Historical Jesus*, 158.

more widely accepted as knowable history than the rest of the twelve."⁵³ These three facts are the following: (1) the fact of Jesus' actual death; (2) the fact of reports by various witnesses who testify to believing that they saw, touched, and talked with the risen Jesus shortly after Jesus' death; and (3) the fact of the transformation of these witnesses to bold proclaimers of Jesus' resurrection in the face of social ostracism, extreme physical hardship, and death.⁵⁴

Habermas examines various non-resurrection explanations of these facts -- e.g., resuscitation/ swoon theory, hallucination/ subjective-vision theory, conspiracy/ disciples-invented-a-tall-tale theory, legend theory -- and finds them all wanting in explanatory merit in comparison to the resurrection explanation.⁵⁵

The resuscitation/ swoon theory, which tries to explain (away) Jesus' resurrection in terms of a not-quite-dead-on-the-cross-but-revived-in-the-tomb Jesus, has trouble with fact 1 (the fact Jesus was actually dead). Here, some findings from William Edwards, Wesley Gabel, and Floyd Hosmer reported in the *Journal of the American Medical Association* may be helpful.⁵⁶ Victims of Roman crucifixion died of asphyxiation (hanging on a cross with arms extended causes a tightness in the chest which makes it difficult for the victim to breathe). Sometimes, to ensure a hasty death by asphyxiation, Roman executioners broke the legs of their crucified victims so the victims would be prevented from lifting themselves up (by pushing with their legs) to fill their lungs with air. According to the historical record, Jesus did not have his legs broken because he

⁵³Habermas, *The Historical Jesus*, 162.

⁵⁴Habermas, *The Historical Jesus*, 162-165.

⁵⁵The argument that follows in this chapter does *not* go as follows: Each of the non-resurrection explanations are rejected as implausible, so (without further argument) the resurrection is judged to have a high probability. Rather, the argument goes as follows: Each of the non-resurrection explanations is seriously implausible; the resurrection, on the other hand, fits the facts snugly and simply, is suggested by the facts, plus its implications/predictions concerning the universe are satisfied/confirmed; therefore, the resurrection explanation is to be preferred.

⁵⁶What follows (above) is from William D. Edwards, Wesley J. Gabel, Floyd E. Hosmer, "On the Physical Death of Jesus Christ," *Journal of the American Medical Association* 255:11 (March 21, 1986): 1455-1463. Edwards is a medical doctor with the Department of Pathology at the Mayo Clinic (Rochester, Minnesota), and Hosmer is with the Department of Medical Graphics at the Mayo Clinic.

was already in a slumped position, which showed the Roman executioners that he was dead. Nevertheless, the record also indicates that the Roman executioners, to ensure that Jesus was dead, thrust a spear into Jesus' chest. At this, "blood and water" are reported to have gushed out.⁵⁷ According to 20th century medical knowledge, this sudden flow of blood plus a watery substance is evidence that Jesus' heart and pericardium (a sack around the heart which contains a watery fluid) were pierced, and, hence, that Jesus was in fact dead. Thus, Edwards *et al.* conclude, "Modern medical interpretation of the historical evidence indicates that Jesus was dead when taken down from the cross."⁵⁸ "Accordingly," Edwards *et al.* also point out, "interpretations based on the assumption that Jesus did not die on the cross appear to be at odds with modern medical knowledge."⁵⁹

The resuscitation/ swoon theory also has trouble with fact 3 (the fact of the transformation of the witnesses to bold proclaimers of Jesus' resurrection in the face of social ostracism, extreme physical hardship, and death) because it is hard to see why the witnesses would get so excited over someone who barely escaped death and was in desperate need of medical attention.

Hallucination/ subjective-vision theory has trouble with fact 2 (the fact that various witnesses testify to believing that they saw, touched, and talked with the risen Jesus shortly after Jesus' death) because hallucination/ subjective-vision theory cannot account for the variety of times and places of Jesus' alleged resurrection appearances, the variety of personalities and numbers constituting the sets of witnesses, and the care taken by some witnesses (e.g., "doubting Thomas") to ensure the physical reality of the resurrection appearance. Stephen Davis adds the following points which also count against the hallucination/ subjective-vision theory:

The [witnesses] were not expecting or wishfully believing in a resurrection. The very idea

⁵⁷See John 19:34.

⁵⁸Edwards *et al.*, "On the Physical Death of Jesus Christ," 1455.

⁵⁹Edwards *et al.*, "On the Physical Death of Jesus Christ," 1463.

of the resurrection of one individual before the end of the world was religiously novel. On at least three occasions, the resurrected Jesus was not immediately recognized. Some who saw him doubted . . . [And] [t]here were none of the usual causes of hallucination present -- drugs, hysteria, or deprivation of food, water, or sleep.⁶⁰

Legend theory is also rendered problematic by fact 2 because of the short time span involved. The fact (2) of the matter is that the witnesses testify to what happened *shortly after* Jesus' death.⁶¹

⁶⁰Stephen T. Davis, *Risen Indeed: Making Sense of the Resurrection* (Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1993), 183-184.

⁶¹It is of some interest to note that Luke's Gospel is sometimes dated after 70 A.D. (the time of the fall of Jerusalem and the destruction of the temple in Jerusalem) because, in Luke, Jesus predicts the destruction of the temple. The idea is that the writer of Luke must have put the prediction in Jesus' mouth for apologetic purposes. Several other lines of evidence, however, weigh heavily against this argument. A strong historical case can be made for thinking that the book of Acts, which is the sequel to the Gospel of Luke, should be dated at 62-64 A.D., which means that the Gospel of Luke should be dated *before* 62-64 A.D. (because Luke comes before Acts). For starters, there is no mention in Acts of the fall of Jerusalem in 70, no mention of the Jewish war in 66 and following, no mention of Nero's persecution of Christians in 65, and no mention of the deaths of James in 61, Paul in 64, and Peter in 65. But these are all extremely significant events for the early Christian church and certainly would have been discussed in Acts if Acts were written after their occurrence; but they were not discussed, and so, to account for this, we are pointed to a date in the early 60s. Also, in Luke and Acts the Christian-Roman relations are described as peaceful, which was the case before Nero's persecution in 65, and so we are again pointed to a date in the early 60s. Also, Luke and Acts make no fuss over the fact that Jesus' prediction of the temple's destruction was fulfilled, which would be very reasonable to expect if Acts were written for apologetic purposes after the temple's destruction -- and so we are again pointed to a date prior to 70. Also, Jesus' prediction of the destruction of the Temple could be explained as an insight of someone who was a keen observer of the political and religious currents of his day, which Jesus seems to have been. In view of the above considerations pro and con, the case for the dating of Luke-Acts prior to 70 A.D. seems to outweigh the post-70 date. For further discussion of the dating of the New Testament documents, see: F. F. Bruce, *The New Testament Documents: Are They Reliable?*, 5th revised edition (Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1984); Craig Blomberg, *The Historical Reliability of the Gospels* (Downers Grove, Illinois: InterVarsity Press, 1987); R. T. France, *The Evidence for Jesus*, The Jesus Library, edited by Michael Green (Downers Grove, Illinois: InterVarsity Press, 1986); Wright, *The Resurrection of the Son of God*.

It might be tempting to explain away Jesus' alleged resurrection by saying that talk of it is merely symbolic. This, however, flies against the clear meaning of the historical texts, texts which show that the witnesses were aware of the importance of empirical evidence and literal description of that evidence. Consider the following. 1 John 1:1 (New International Version): "That which is proclaimed about Jesus concerns what we have heard, seen, and touched." 2 Peter 1:16 (NIV): "We didn't follow cleverly invented stories to tell about Jesus, we were eye-witnesses." Also, Luke 1: 1-4 (the preface to the Gospel of Luke) describes the Gospel as a "carefully investigated" account drawn up from "those who from the first were eye-witnesses." For further defence of the non-merely-symbolic understanding of Jesus' alleged resurrection, see Wright, *The Resurrection of the Son of God*, xviii-xix, 31, 200-206, 314ff.

In addition, any conspiracy/ disciples-invented-a-tall-tale theory has (with help from fact 2) serious difficulty with fact 3, the fact of the transformation of the witnesses. The merit of fact 3 as evidence can perhaps be better seen if we examine some critical comments from Michael Martin, on whom the significance of fact 3 is very apparently lost. According to Martin,

It is difficult to understand why Habermas thinks that the fact that eyewitnesses to Jesus' postresurrection appearances were transformed into people who were willing to die for their conviction should be given special evidential weight. People who have *not* claimed to be eyewitnesses to Jesus' appearances have also been transformed into people who were willing to die for their Christian beliefs. In addition, Christian heretics have been willing to die for their beliefs. Let us not forget either that Muslims, Mormons, followers of James Jones, kamikaze pilots, and many others have been willing to die for what they believed. Surely many of these people were transformed by previous experiences and became martyrs because of their experiences. The fact that people are willing to die for their beliefs can show many things: strength of character, extreme devotion, and even fanaticism. But it is hard to see that it indicates that what is believed is true or even that the evidential bases of the beliefs should be taken seriously.⁶²

Martin, it must be acknowledged, does have a point: tragically, people often do suffer and die for false beliefs while thinking them to be true. However -- and this is the crucial distinction missed by Martin -- it should be noted that it is one thing to suffer and die for something false, believing it to be true; it is very much another thing to suffer and die for the truth of something, knowing it is false. In the case of Jesus' resurrection, if the resurrection did not occur, as conspiracy theory holds, then the witnesses would be suffering and dying for their claim that the resurrection happened *all the while knowing that it did not happen*. But, and Martin misses this entirely, we know that people generally do not suffer and die for falsehoods knowing them to be false. In fact, in historical reasoning, as law professor Annette Gordon-Reed points out (in connection to a different case), "Declarations against interest are regarded as having a high degree of credibility because of the presumption that people do not make up lies in order to hurt themselves; they lie to help themselves."⁶³

⁶²Michael Martin, *The Case Against Christianity* (Philadelphia: Temple University Press, 1991), 91.

⁶³Annette Gordon-Reed, *Thomas Jefferson and Sally Hemings: An American Controversy* (Charlottesville, Virginia: University Press of Virginia, 1997), 217; cited in Gary R. Habermas & Michael R. Licona, *The Case*

Clearly, the disciples did not help themselves by claiming they witnessed Jesus' resurrection (such claims resulted in persecution, torture and death). What about Martin's claim that people who have *not* claimed to be eyewitnesses to Jesus' appearances have also been transformed into people who were willing to die for their Christian beliefs? And what about the Christian heretics, Muslims, Mormons, followers of James Jones, Kamikaze pilots and all the others who have been willing to die for what they believed? Does the existence of such people, and there are many, count against the evidential merit of the eyewitnesses to Jesus' alleged resurrection? The answer is No. According to Habermas and Michael R. Licona,

Another difference between Jesus' disciples and those who suffer and die for their religious faith today [or throughout history] is that the latter do it because they have believed the testimony of someone else. It is a matter of faith. The former suffered and died for what they believed were appearances of the risen Jesus to them. Those who suffer and die for their faith today die for what they *believe* is true. The disciples died for what they *knew* was either true or false.... [B]eing sure we saw someone on several occasions is generally a more sure belief [i.e., an item of knowledge] than is accepting a religious ideology by faith.⁶⁴

The eyewitnesses, in other words, would know that their testimony was false if it were in fact false and true if it were in fact true -- after all, they claim that they saw, heard, and touched the risen Jesus over a period of several weeks -- and so they are unlike all the others on Martin's list who also would rather suffer seriously than recant. This means that the suffering of the eyewitnesses counts in favour of the veridicality of their testimony, whereas this is not the case with the testimony of those who are not eyewitnesses. It seems reasonable to think, then, that the testimony of the witnesses is true.

As a further defence against the conspiracy/ disciples-invented-a-tall-tale theory, consider the following satirical speech invented by Eusebius of Caesarea (a speech apparently also missed by Martin): "Let us band together," proclaims one disciple to the others, "to invent all the miracles and resurrection appearances which we never saw and let us carry the sham even to death! Why not die for nothing? Why dislike torture

for the Resurrection of Jesus (Grand Rapids, Michigan: Kregel Publications, 2004), 39.

⁶⁴Habermas & Licona, *The Case for the Resurrection of Jesus*, 300n.

and whipping inflicted for no good reason? Let us go out to all nations and overthrow their institutions and denounce their gods! And even if we don't convince anybody, at least we'll have the satisfaction of drawing down on ourselves the punishment for our own deceit."⁶⁵ The witnesses, in other words, deserve the benefit of the doubt. They are to be presumed innocent (i.e., truth tellers) until proven otherwise.

To buttress this last point, historian and legal-scholar John Warwick Montgomery applies to the witnesses a fourfold test for exposing perjury and he concludes that it is reasonable to think that they do not commit perjury.⁶⁶ The test "involv[es] a determination of internal and external defects in the witness himself on the one hand and in the testimony itself on the other."⁶⁷ First, the witnesses do not show defects within themselves. The historical record indicates that they are in general ordinary folk and not criminals or known liars. Also, the record indicates that they can distinguish between fact and fiction. As was noted earlier, the witnesses themselves declare: "We didn't follow cleverly invented stories to tell about Jesus, we were eye-witnesses."⁶⁸ Second, the witnesses do not show defects externally, that is, the witnesses seem not to have "motives to falsify."⁶⁹ Montgomery makes his case as follows: "Surely no sensible person would argue that the apostolic witnesses would have lied about Jesus for monetary gain or as a result of societal pressure. To the contrary: They lost the possibility both of worldly wealth and of social acceptability among their Jewish peers because of their commitment to Jesus. Might that very affection for and attachment to Jesus serve as a motive to falsify? Not when we remember that their master expressly taught them that lying was of the

⁶⁵Eusebius, *Demonstratio Evangelica* 3 (circa 314-318 A.D.), 4-5; cited in William Lane Craig, *Knowing the Truth about the Resurrection*, Knowing the Truth series, series edited by J. I. Packer & Peter Kreeft (Ann Arbor, Michigan: Servant Books, 1988), 19.

⁶⁶John Warwick Montgomery, *History, Law and Christianity*, 3rd edition (Edmonton, Alberta: Canadian Institute for Law, Theology, and Public Policy Inc., 2002), 76-81. Montgomery is Professor Emeritus of Law and Humanities at the University of Luton, England.

⁶⁷Montgomery, *History, Law and Christianity*, 76.

⁶⁸2 Peter 1:16 (NIV).

⁶⁹Montgomery, *History, Law and Christianity*, 78.

devil."⁷⁰ Third, and focusing now on the witnesses' testimony itself (as recorded in the New Testament Gospels), the testimony does not show itself to have internal defects, i.e., internal inconsistencies and self-contradictions, which demand the testimony's rejection. According to Montgomery, "Certainly, the Gospel records do not give identical, verbatim accounts of the words or acts of Jesus. If they did, that fact alone would make them highly suspect, for it would point to collusion. The Gospel records view the life and ministry of Jesus from [at least] four different perspectives – just as veridical witnesses to the same accident will present different but complementary accounts of the same event."⁷¹ Fourth, the testimony does not suffer external defects, that is, it does not contradict any independently known historical facts. According to Montgomery, "Modern archaeological research has confirmed again and again the reliability of New Testament geography, chronology, and general history.... [T]he New Testament writers were engaged in accurate historiography."⁷² Thus, Montgomery concludes, "on no one of the four elements of the [test] for attacking perjury can the New Testament witnesses to Jesus be impugned."⁷³

It is reasonable to think, therefore, that any conspiracy/disciples-invented-a-tall-tale theory runs amok because of facts 2 and 3.

So, how can we explain these three facts? According to Habermas, the hypothesis of a miraculous resurrection handles the specific foreground data reasonably well. Fact 1: At time t_1 , near the end of Jesus' crucifixion, Jesus is dead. Fact 2: Various witnesses believe that they saw, touched, and talked with the risen Jesus at time t_2 , a day or two after t_1 and for several weeks following, at various locations. Fact 3: In the face of social ostracism, extreme physical hardship and even death, these witnesses are transformed into bold

⁷⁰Montgomery, *History, Law and Christianity*, 78-79.

⁷¹Montgomery, *History, Law and Christianity*, 79.

⁷²Montgomery, *History, Law and Christianity*, 80-81. For additional defence of the historicity of the New Testament record, see: Wright, *The Resurrection of the Son of God*; Swinburne, *The Resurrection of God Incarnate*; Bruce, *The New Testament Documents*; France, *The Evidence for Jesus*; Blomberg, *The Historical Reliability of the Gospels*.

⁷³Montgomery, *History, Law and Christianity*, 81.

proclaimers of Jesus' resurrection from death. Habermas, it seems, is correct. The resurrection hypothesis fits the facts well, pulling the facts together, i.e., unifying them, simply, under one hypothesis; moreover, the resurrection hypothesis flows quite readily from the facts, even being explicitly stated as the preferred hypothesis by the third fact. But, of course, in the absence of any indication of the existence of a supernatural realm, such a hypothesis seems implausible. McCullagh would seem to agree on both of the aforementioned points (i.e., the fittingness of the miraculous resurrection hypothesis and its apparent implausibility): "This hypothesis [that Jesus miraculously rose from the dead] is of greater explanatory scope and power than other hypotheses which try to account for the relevant evidence, but it is less plausible and more *ad hoc* than they are."⁷⁴ McCullagh does not clearly explain *why* he thinks the resurrection explanation is less plausible and more *ad hoc*; it seems to be simply an assumption. This assumption, though, seems very much to stem from the implications of an appeal to the miraculous, implications which go beyond the foreground data. As McCullagh even admits (as we saw earlier), "For a hypothesis to be implausible, our present knowledge of the world must imply that it is probably false."⁷⁵ In other words, as Steve Clarke points out (not referring to McCullagh in particular, but aptly capturing McCullagh's view), "Counting against miracles are the ontological commitments which they bring with them."⁷⁶ McCullagh, then, seems simply to assume a metaphysically naturalistic worldview which allows him to assume that these ontological commitments count against the plausibility of a miracle hypothesis.⁷⁷ McCullagh is not alone in making this assumption, which

⁷⁴McCullagh, *Justifying Historical Descriptions*, 21.

⁷⁵McCullagh, *Justifying Historical Descriptions*, 27.

⁷⁶Steve Clarke, "When To Believe in Miracles," *American Philosophical Quarterly* 34:1 (January 1997): 97.

⁷⁷To be fair to McCullagh, in a later work he seems to allow for a worldview other than the naturalistic one. According to McCullagh, "historical descriptions are true if they are part of a coherent account of the world, and if the observation statements implied by that account either were or could have been confirmed by people of the appropriate culture and with the appropriate interests" (C. Behan McCullagh, *The Truth of History* [London & New York: Routledge, 1998], 5.) Although McCullagh attempts to argue against cultural relativism with respect to the study of history, it seems that his claim leaves such a possibility open. At any rate, in his later work McCullagh seems to continue to assume metaphysical naturalism.

is taken by some to be the foundational assumption of a "scientific" or "secular" worldview. The New Testament scholar and theologian Rudolph Bultmann writes: "It is impossible to use electric light and the wireless and to avail ourselves of modern medical and surgical discoveries, and at the same time to believe in the New Testament world of spirits and miracles."⁷⁸ The New Testament scholar Gerd Lüdemann writes: "[T]he literal statements about the resurrection of Jesus . . . have lost their literal meaning with the revolution in the scientific picture of the world."⁷⁹ Robert Funk, Roy Hoover, and the scholars of the so-called Jesus Seminar write: "The Christ of creed and dogma . . . can no longer command the assent of those who have seen the heavens through Galileo's telescope. The old deities and demons were swept from the skies by that remarkable glass. Copernicus, Kepler, and Galileo have dismantled the mythological abodes of the gods and Satan, and bequeathed us secular heavens."⁸⁰ But it should be asked: Is this so-called scientific/secular assumption -- i.e., this *metaphysically naturalistic* assumption -- reasonable to hold?⁸¹

At this juncture it may be helpful to acknowledge the fact that *if* our background knowledge precludes the existence of any supernatural miracle-working causal power, of any intelligent causes which/who are

⁷⁸Rudolph Bultmann, "New Testament and Mythology," in *Kerygma and Myth*, edited by H. W. Bartsch & translated by Reginald H. Fuller (New York: Harper & Row, 1961), 5.

⁷⁹Gerd Lüdemann, *The Resurrection of Jesus: History, Experience, Theology*, translated by John Bowden (Minneapolis: Fortress, 1994), 180.

⁸⁰Robert W. Funk, Roy W. Hoover, and the Jesus Seminar, *The Five Gospels: The Search for the Authentic Words of Jesus* (New York: Macmillan Publishing Company & Polegridge Press, 1993), 2. It is of some interest to note that, *contra* Funk, Hoover, and company, the hypothesis that Christianity was a crucial factor in making science possible (e.g., by underwriting scientists' faith that the object of their investigation is intelligible and orderly because it was created by an intelligent God) is defended by several able scholars. For examples, see: Stanley Jaki, *Science and Creation* (Edinburgh: Scottish Academic Press, 1974); Rejer Hooykaas, *Religion and the Rise of Modern Science* (Edinburgh & London: Scottish Academic Press, 1972); Nancy R. Pearcey & Charles B. Thaxton, *The Soul of Science: Christian Faith and Natural Philosophy* (Wheaton, Illinois: Crossway Books, 1994). See too: Henry F. Schaefer, III, "Scientists and their Gods," in *Science and Christianity: Conflict or Coherence* (Athens & Watkinsville, Georgia: The University of Georgia & The Apollos Trust, 2003), 7-35.

⁸¹The words "metaphysically naturalistic" are taken here to mean that there are no intelligent causes which/who are physically transcendent, i.e., that there are no intelligent supernatural miracle-working causal powers.

physically transcendent, then it is legitimate to think that the hypothesis of Jesus' resurrection is not plausible in the antecedent sense (of plausible) and therefore cannot be considered as a candidate for the subsequent sense. After all, our knowledge concerning the natural impossibility of resurrections is excellent.⁸² We have excellent evidence that dead people, when left to themselves, stay dead (think of the billions of people who have died over the duration of our earth's history). In fact, the evidence for non-reversible necrosis (cell decay at death) is super strong: bodily decomposition starts within minutes after death and after a day or more without refrigeration renders a resuscitation, let alone a resurrection, physically impossible. It is surely reasonable to believe, then, that when nature is left to itself, resurrections not only do not occur but also cannot occur. In other words, we are very secure in our knowledge that a naturally caused resurrection is maximally improbable, and so any testimony to such an event can be reasonably dismissed. Thus, if our background knowledge precludes the possibility of any miracle-working causal power, the resurrection hypothesis, because it is clearly initially implausible, would not get into the pool of contenders, which in this case would consist of some sort of non-resurrection hypotheses (e.g., hallucination, trick/conspiracy, etc.), or there would be a mere suspension of belief, which would also keep the hypothesis out of the pool. Surely, because of our excellent knowledge of cell necrosis and of dead people staying dead we are more than reasonably justified in thinking that naturally caused resurrections are not a reasonable option to hold. So, we can readily admit that *naturally caused* resurrections are maximally improbable and so such hypotheses should be dismissed as unreasonable.

But what about a *miraculous* resurrection? That is, what about a *supernaturally caused* resurrection? Because of our previously-mentioned excellent knowledge concerning the very apparent impossibility of naturally caused resurrections, it is reasonable to think that if a resurrection were in fact to occur, it would be a supernaturally caused resurrection. To be sure, at this juncture one might object with John Stuart Mill that

⁸²The word "resurrection" does not mean a mere resuscitation; it means a transformed physical body with various extraordinary powers which Jesus reportedly had (e.g., his ability to appear and disappear).

"there is always another hypothesis possible, viz., that the event may have been produced by physical causes, in a manner not apparent."⁸³ Mill adds: "It may either be due to a law of physical nature not yet known, or to the unknown presence of the conditions necessary for producing it according to some known law."⁸⁴

Indeed, as Martin points out,

The believer in miracles must give reasons to suppose that the event E, the alleged miracle, will probably not be explained by any unknown scientific laws that govern nature. Since presumably not all the laws that govern nature have been discovered, this seems difficult to do. The advocates of the miracle hypothesis must argue the probability that E will not be explained by future science, utilizing heretofore undiscovered laws that govern nature. Given the scientific progress of the last two centuries, such a prediction seems rash and unjustified.⁸⁵

Mill's and Martin's points are good, as far as they go. That is to say, to think that there are some previously unknown laws waiting to be discovered may be reasonable to think to be the case in some not well understood fields of investigation (say, a healing of cancer as an apparent answer to prayer) and so in those fields one must explain why one thinks one is not being rash in saying those laws cannot be found (perhaps, as mentioned in chapter 1, our bodies have built-in, non-miraculous healing powers which become activated when we exercise an attitude of faith). However, the fact remains that it is not reasonable to think this way in the very well understood realm of human death. As Stephen Evans points out, "we surely know enough about the natural order to know that it is most unlikely that there could be any natural explanation for a person

⁸³John Stuart Mill, "Theism," in *Nature, The Utility of Religion, and Theism* (London, England: Longmans, Green, Reader, and Dyer, 1874); reprinted as *Three Essays on Religion* (Amherst, New York: Prometheus Books, 1998), 229.

⁸⁴Mill, "Theism," 229.

⁸⁵Michael Martin, *Atheism: A Philosophical Justification* (Philadelphia: Temple University Press, 1990), 196. In the original, Martin has subscripted the letter "n" beside the word "nature" to indicate that he is talking about nature in a narrow sense, as opposed to nature in a broad sense, a sense that could include whatever exists beyond the universe. Above, for the sake of simplicity, Martin's subscript has been dropped.

who has been dead for three days being restored to life."⁸⁶ We surely know that dead bodies, if left to themselves, stay dead and begin, irreversibly, to decay. We surely know that, on their own, dead bodies do not transform themselves into living bodies made with new flesh and new powers.⁸⁷ Moreover, advances in science over the last few centuries serve only to underscore the fact that no naturalistic explanations are forthcoming. Indeed, Francis Beckwith points out, referring to miracles such as Jesus' resurrection, "these alleged miracles are more than presently inexplicable, they are *prima facie* not the sorts of events about which one could speculatively develop and propose ad hoc hypotheses on the basis of which one can reasonably imagine they would be explicable under a future, yet undiscovered, scientific law."⁸⁸ Thus, *pace* Mill and Martin, if a resurrection were to occur, it is reasonable to think that it would be a supernaturally caused resurrection.⁸⁹

So: Is it legitimate to dismiss a supernaturally caused resurrection as maximally improbable too?
Answer: We should think not. To dismiss legitimately a supernaturally caused resurrection as maximally improbable requires not just knowledge of how nature behaves when not interfered with by the supernatural realm -- it also requires the knowledge that a supernatural, miracle working God-like being does not exist or

⁸⁶C. Stephen Evans, *The Historical Christ & The Jesus of Faith: The Incarnational Narrative as History* (Oxford & New York: Clarendon Press, 1996), 160.

⁸⁷As mentioned in chapter 1, in the case of Jesus' resurrection it seems to be the case that matter/energy is created to provide new, "high-powered" flesh in Jesus' resurrected body. Jesus was dead for only a short time, so it will be assumed that there is no need to annihilate thoroughly rotten flesh as in the case of a leper's healing. However, if there were such rotten flesh, it may have been simply "shed" as new matter/energy was created. As mentioned too in chapter 1, such a shedding may not be without precedent in the New Testament miracles. For example, when the apostle Paul was allegedly healed of blindness, it is reported that "there fell from his eyes something like scales" (Acts 9:18 NASB). At any rate, the theological details concerning whether or not Jesus' body saw decay or corruption will not be pursued here.

⁸⁸Francis J. Beckwith, "Theism, Miracles, and the Modern Mind," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 225.

⁸⁹Martin would at this juncture undoubtedly object that, with respect to miracles in general and the resurrection in particular, "the events designated as miracles [i.e., as supernaturally caused] may be wrongly designated since they may be uncaused -- that is, they may be neither naturally nor supernaturally determined" (Martin, *Atheism*, 199). To be sure, this is a logical possibility. Nevertheless, as was argued in chapter 3 of this dissertation, it is reasonable to think that whatever begins to exist has a cause.

that, if such a being does exist, He has no intention to intervene. Significantly, however, we do *not* know that such a God-like being does not exist. This is not a mere appeal *ad ignorantiam*. Indeed, as was argued in previous chapters, it is reasonable to believe that a God-like being -- i.e., a very powerful, transcendent, and intelligent causal source of matter/energy -- *does* exist. Moreover, we do not know that this being does not intend to intervene in nature.⁹⁰

Of course, it also remains that we do not know that this being *does* intend to intervene in nature.⁹¹ Nevertheless, as will be argued, this does not block the plausibility of a miracle hypothesis to account for some specific facts that are suggestive of a miracle's occurrence.

B. The Plausibility of Jesus' Alleged Resurrection

In this section, a case defending the plausibility of Jesus' miraculous resurrection will be set out. It

⁹⁰Of course, if the notion of an immaterial causal agent is logically incoherent, then such a being could not exist. However, as was noted at the beginning of this dissertation and earlier in this chapter, in this dissertation it is assumed that the notion of such a being is logically coherent.

⁹¹It should be noted here that the claim "it also remains that we do not know that this being *does* intend to intervene in nature" does not contradict the claim of chapter 4 which holds that we can reasonably believe that this being intended to create nature. Chapter 4's claim, defended in terms of the deep mind affinity that can be seen in the fine-tuning of the universe's beginning vis-à-vis the objective moral value of subsequent intelligent human life, is more general than the claim above. The claim above has to do with the universe after it has been created, after humankind in general has been instantiated.

Richard Swinburne thinks that we can know that God does intend to intervene in nature. According to Swinburne, "if there is a God with reason to bring about such a miracle [as a resurrection], Jesus was the sort of person whom God would have reason to resurrect -- and this is a matter of considering the sort of life he led and what he taught." (Richard Swinburne, *The Resurrection of God Incarnate* [Oxford & New York: Clarendon Press, 2003], 3.) Even if there is as much of a chance as not that the biblical Christian God exists, Swinburne takes the evidence for Jesus' life (which is morally exemplary) and Jesus' teachings (which include the teaching that Jesus is God Incarnate) as expected on the hypothesis of the existence of the biblical Christian God, therefore providing evidence for God's intentions to become incarnate in Jesus and subsequently to be resurrected. Swinburne's approach is intriguing. However, it requires that much more biblical scholarship and theology be put on the table than the approach taken in this dissertation, so it will not be investigated further here. It will be noted here, though, that if Swinburne's approach is successful, the work of this dissertation may be buttressed by it.

will be argued that the plausibility of Jesus' miraculous resurrection is enhanced by the universe as miracle writ large.

So, how does the universe as miracle writ large enhance the plausibility of a miraculous resurrection? If we had knowledge of past cases in which miracles such as resurrections have occurred, that would certainly help. But we seem not to have knowledge of such miracles.⁹² Instead, we seem to have just one case of a miracle: the universe -- an extremely large miracle. Let us keep in mind that along with the evidence for Jesus' alleged resurrection, evidence we have some difficulty explaining away naturalistically, there is also evidence that Jesus indicated (via various claims about himself) that his resurrection -- a miracle writ small -- is due to the same causal power which produced the universe.⁹³ Furthermore, let us keep in mind that the discovery of the miracle of the universe (that is, the discovery of the Big Bang) occurred nineteen centuries *after* the

⁹²Perhaps it would be better to say that the evidence of such cases is not as good as the evidence for Jesus' resurrection. In the New Testament, there are reports of other raisings from the dead (albeit not in the transformed body that Jesus' resurrection is alleged to have involved). For examples: Jesus' raising of the man Lazarus (John 11: 1-44), Jesus' raising of the daughter of a man called Jairus (Matthew 9:18-19, 23-25), Jesus' raising of the son of a widow in the city of Nain (Luke 7:11-15), Jesus' disciple Peter's raising of the dead woman Tabitha (Acts 9: 36-43), and the apostle Paul's raising of a young man named Eutychus (Acts 20: 7-12). However, the main evidential thrust of the New Testament has to do with Jesus' resurrection. In the Old Testament, there are reports of the prophet Elijah raising a dead boy to life (1 Kings 17: 7-24) and the prophet Elisha raising a dead boy to life as well (2 Kings 4: 8-37). These reports, however, are not corroborated by multiple sources, as is the case for Jesus' resurrection, and so are not as well evidenced for us as is Jesus' resurrection. Also, it should be noted that there are a considerable number of reports of miracles having occurred throughout extra-biblical history and even in the present day: for examples, the Jansenist miracles which are alleged to have occurred in David Hume's day, and the miracles associated with certain Christian healing ministries in our day. These miracles would greatly help the case made in this thesis in so far as they are cases in which complex specifically structured matter/energy comes into being and the reports of their occurrence are credible. Because it seems that this dissertation's argument works without help from these other miracles, and because the investigation of these other miracles would probably require at least another dissertation, these other miracles will be considered beyond the scope of the present project. Nevertheless, a few more words will be said on this matter at the end of this chapter.

⁹³It will be assumed, for the sake of argument, that the evidence for Jesus indicating (via various claims about himself) that his resurrection is due to the same causal power (i.e., the very powerful, intelligent, and nature-transcending causal source of matter/energy) which produced the universe is good evidence. Because this Scriptural evidence is not obvious and straightforward, to set out various Scriptural quotations here and use them to defend my assumption would take us too far afield. For a helpful investigation of Jesus' self-understanding vis-à-vis his claims about himself, see William Lane Craig, *Reasonable Faith: Christian Truth and Apologetics* (Wheaton, Illinois: Crossway Books, 1994), 233-254, especially 243ff.

occurrence of the resurrection though it (the miracle of the universe) occurred much earlier: in other words, keep in mind that Jesus' resurrection occurred in the first century A.D. and that the miracle of the universe occurred 12 to 15 billion years earlier but was discovered only over the past 75 years or so.

Now, keeping in mind (too) this chapter's discussion of antecedent and subsequent plausibility, consider the cumulative impact of the following nine points for counting in favour of the plausibility of the hypothesis that the causal power which produced the miracle of the universe (MU) also produced the miracle of the resurrection (MR).⁹⁴

Point #1. There very apparently exists some sort of very powerful, physically transcendent, and intelligent cause who can produce the coming into being of extremely complex, specifically structured matter/energy. This is background belief/knowledge which arises from contemporary science and moral philosophy for the case of MU, as has been argued in the previous chapters and earlier in this chapter. This background belief/knowledge should serve to weaken the aversion that some (such as McCullagh, Bultmann, Lüdemann, Funk, and Hoover) have to the ontological commitments miracles bring with them, thereby weakening the force of their judgment concerning antecedent implausibility.

Point #2. There exists a phenomenological/factual analogy between MU and MR which has to with their origins. Although differing in terms of size, in both cases there is a coming into being of matter/energy. MU involves a coming into being of matter/energy which is structured in such a way as to satisfy the conditions needed for the instantiation of intelligent human life. MR involves a coming into being of matter/energy which is structured in such a way as to satisfy the conditions needed to instantiate the tissue of a resurrection body. (Also, there is an analogy in the way both cases are observed: via historical evidence and inferences therefrom. In the case of MU, we in effect observe it via astronomical evidence of the past such as the expanding universe and microwave background radiation; the actual big bang moment is not observed.

⁹⁴It might be the case that the producer of MU is also the producer of not just MR but all miracles. MR is the focus here because it is important to many people (Hume included), there is pretty good evidence for it, and the evidence is suggestive of the miraculous.

In the case of MR, we in effect observe it via the ancient testimony of those who report that they saw Jesus alive after they saw that he had been killed; the actual resurrection moment is not observed either.⁹⁵)

Point #3. There exists a structural analogy between MU and MR. In both cases the specifically structured complex of matter/energy not only comes into being but also displays the characteristic marks of superintelligence. In other words, the matter/energy that comes into being in both cases does not come into being as mere globs which are configured to no specific end; they have a configuration that smacks of intelligent design. As was argued in chapter 4, the case for MU consists of a fine-tuning of the matter/energy that comes into being so that the vast multitude and variety of systems of highly complex molecular machines plus DNA which comprise intelligent life emerges. Significantly, the fine-tuning, the molecular machines, and the DNA language/code in the MU case display deep mind affinity. The case for MR consists of a subset of the case for MU in the sense that MR requires a fine-tuning of the matter/energy that comes into being so that a large (but relatively smaller) number and variety of systems of highly complex molecular machines plus DNA are specifically configured to comprise the trillions of functional cells (or their machines) needed for the newly resurrected body. Significantly, the fine-tuning, the molecular machines, and the DNA language/code in the MR case display deep mind affinity as well. To be sure, there are some serious disanalogies. For example, MU is much larger than MR, and MU takes place over a much longer period of time than MR. Nevertheless, it may helpful to recall from our earlier discussion of the criteria of plausible explanation that positive analogies when coupled with consilience and simplicity can overcome the negative force that might arise from any attendant disanalogies (recall Thagard's examples from Darwin and Huygens).⁹⁶ In the view of this dissertation's author, the cumulative impact of the previous two points plus

⁹⁵It might seem that there is also an observational disanalogy: one case is resting on repeatable observations, the other on one-time human testimony. The relevant (parenthetical) point above, however, is that we can repeat the observations of *the effects* of the events: one effect is on the universe, the other is on the ancient witnesses.

⁹⁶As was pointed out earlier, Huygens, to make his case for the wave theory of light, appealed to an analogy between light and sound in spite of the disanalogy that light is propagated in straight lines whereas sound is

the present point plus the subsequent points constitutes a reasonable case for thinking that such an overcoming is instantiated in the situation of MU and MR.

Point #4. There exists, because of the aforementioned analogies, an *explanatory* analogy between MU and MR as well. Even though we are not wholly clear on the nature of the cause at work (it is in large part mysterious), the cause nevertheless seems very much to be a powerful, nature-transcending, intelligent causal source of matter/energy. (The question of whether this cause's mysteriousness should count against its existence will be taken up in the next section on objections.)

Point #5. Moreover, even though there are some important disanalogies between the cases (MU is much larger than MR and takes place over a longer period of time), the occurrence of MR seems to be a smaller, easier-to-do task for the causal power behind MU, and so the MU-type explanation in the case of MR is enhanced. The idea is that if X has done a big job, then that counts in favour of X being able to do a small job -- especially if the *possibility* of the doing of the small job does not seem more difficult than the doing of the big job. If J. R. R. Tolkien can write *The Lord of the Rings* over a long period of time, then it is reasonable to think that J. R. R. Tolkien can write a grocery list over a very short period of time. If Neil Armstrong can pilot a spacecraft to the moon over a period of days, then it is reasonable to think that Neil Armstrong can drive a car quite quickly to Wal-Mart. If GM, a big company, can build an automobile from scratch over a few weeks, then it is reasonable to think that GM can build a small part of an automobile, say, an alternator, in much less time. So, if X can create a universe -- a big miracle -- then it is reasonable to think that X can also do a resurrection, a little miracle.⁹⁷

not, and Darwin, to make his case for evolution, appealed to an analogy between artificial selection and natural selection in spite of the disanalogy that artificial selection involves selection by an intelligent agent whereas natural selection does not (at least not as directly). These disanalogies were serious, yet the theories were rationally acceptable because of the positive analogies coupled with other explanatory virtues.

⁹⁷One might wonder which is the "greater" miracle. Given that we are here already, and given the traditional Christian interpretation of the resurrection, the little miracle would be the greater one in terms of (our) salvation. Also, it may well be argued that the little miracle is greater if we hold that life is greater than inanimate being, because bringing life from the dead might be greater than bringing the inanimate from the

Point #6. The above explanatory analogy, even though having to do with a mysterious causal power, can be easily read off the aforementioned factual and structural analogies, and this reading is reinforced by, and makes sense of, the indication accompanying MR (namely, Jesus' claims that the same causal power which produced the universe has produced his resurrection).

(At this juncture, it may be helpful to recall, parenthetically, some previously presented remarks from Thagard. As Thagard points out, if there arises from the two cases of analogous phenomena a suggested analogy between the explanatory hypotheses of those phenomena, then the value of the explanation in the first case is increased, even if there exist threatening disanalogies. Moreover, as Thagard also points out, "Not only does analogy between phenomena suggest the existence of analogy between explanatory hypotheses; it also *improves* the explanations in the second case, because the first explanation furnishes a model for the second one. Explanations produce understanding. We get increased understanding of one set of phenomena if the kind of explanation used -- the kind of model -- is similar to ones already used."⁹⁸ So, because there are phenomenological/factual and explanatory analogies between the cases MU and MR, these analogies are, in spite of some serious disanalogies, positive factors which contribute to our choosing as the best explanation that hypothesis which stems from these analogies.)

Point #7. The hypothesis that MR is an instance (albeit on a smaller scale) of the power behind MU not only fits well with the testimony/evidence presented by the witnesses, but it also fits better than each of the contending alternative non-MR hypotheses, thereby explaining under one hypothesis -- or *at least* offering an apparently promising singular explanation of -- two classes of facts: the scientific facts/evidence related to MU, and the historical facts/evidence related to MR. In other words, the hypothesis that MR is an instance of the power behind MU promotes *consilience*.

non-existent. Further discussion of these points, though interesting, will be taken to be beyond the scope of this dissertation. On the significance of Jesus' resurrection, see Alistair McGrath, *Christian Theology: An Introduction*, 2nd edition (Oxford: Blackwell Publishers, Inc., 1997), chapters 9-12.

⁹⁸Thagard, "The Best Explanation," 91.

Point #8. Closely related to point 7 is the fact that the hypothesis that MR is an instance of the power of MU is a *simple* way of handling the phenomena/facts. As Thagard points out (as we saw earlier), "a *simple* consilient theory not only must explain a range of facts; it must explain those facts without making a host of assumptions with narrow application."⁹⁹ Appealing to the hypothesis that MR is an instance of the power of MU is simpler than positing, *ad hoc*, a different power for MU's occurrence or positing, *ad hoc*, various ill-fitting explanations for the evidence having to do with MR, evidence which points (on its own and as indicated verbally by the persons intimately connected to MR) to the same power that was responsible for MU's occurrence.

Point #9. Even though MU was discovered relatively recently, MR points to MU's occurrence (when the work of the previous chapters is taken into account). In other words, the hypothesis that MR is an instance of the power of MU in effect predicts, i.e., postdicts/retrodicts, MU. (According to Edwin Hung, "'Postdiction' means predicting about the past. Sometimes the term 'retrodiction' is used."¹⁰⁰) Recall Thagard's point that "Successful prediction can often be understood as an indication of . . . consilience, provided that the prediction concerns matters with which the theory used to make the prediction has not previously dealt, and provided that the prediction is also an explanation."¹⁰¹ As previous chapters have shown, the concept of miracle in MR goes beyond matters solely pertaining to MR because of its logical implications/predictions for the world, i.e., MU, and, at the same time, it provides an explanation for MU. Hence, MR's prediction of MU's occurrence, i.e., MR's prediction of the universe as a miracle writ large, is an *additional indication* of consilience.

It very much seems, therefore, that the hypothesis -- that the causal power which produced MU also produced MR -- can now reasonably be put into the pool of plausible hypotheses: because the hypothesis has

⁹⁹Thagard, "The Best Explanation," 87.

¹⁰⁰Edwin Hung, *The Nature of Science: Problems and Perspectives* (Belmont, California: Wadsworth Publishing Company, 1997), 21n.

¹⁰¹Thagard, "The Best Explanation," 83.

logical implications which fit with the background knowledge/belief, it is not initially implausible, and because the hypothesis displays the explanatory virtues of analogy, simplicity, and consilience, it is not subsequently implausible either.¹⁰²

C. Objections (and Replies)

1. Fallacy of Division Objection

The plausibility structure for MR based on MU commits the fallacy of division, the mistake of reasoning from the properties of a whole to the properties of its parts, when doing so is not warranted.¹⁰³ According to this objection, in other words, from the fact that a miracle writ large has occurred, it does not follow logically that a miracle writ small has occurred or will occur too.

To be sure, from MU's occurrence, it does not follow logically (i.e., it does not follow as a valid deductive inference) that MR will occur; and so it must be acknowledged that it is possible that, given MU, no MR will occur. But so what? What is significant here is not that MR's occurrence follows logically from MU's occurrence (clearly, MR does *not* follow logically from MU). Rather, what is significant here is merely that the occurrence of MU seems very much to make the occurrence of MR much more than a mere logical possibility -- as the above plausibility case shows.

¹⁰²The fit with the background knowledge/belief along with the display of the explanatory virtues of analogy, simplicity, and consilience also work together to allow us to make the judgement of antecedent *and* subsequent plausible in one fell swoop. For simplicity of analysis the judgements were made separately in the main text.

¹⁰³For additional discussion of the fallacy of division, see Salmon, *Logic*, 55.

2. Question-Begging Objection

Does not the above appeal to a miracle (MR) as evidence of divine or supernatural intelligent causal intervention (by the cause of MU) involve question-begging?¹⁰⁴ According to Martin Curd, "miracles cannot rationally persuade anyone to accept theism if that person is initially neutral on the issue (where neutrality entails that the person does not already accept certain assumptions about God's nature and dispositions)."¹⁰⁵ The objection, also set out by Christine Overall, seems to be that an argument from miracles as evidence of a divine or supernatural intelligent causal intervention is supposed to be of the form that the existence of miracles is evidence for a hypothesis not already accepted, not built into the very condition for calling it evidence.¹⁰⁶

In the view of this dissertation's author, there seems to be no question-begging going on here. Yes, the argument from miracles is supposed to be of the form that the existence of miracles is evidence for a hypothesis not already accepted. But also the argument from miracles is supposed to be of the form that the existence of miracles is evidence for a hypothesis not *already rejected* either. Let me explain. The evidence in question, evidence that has to do with a paradigmatic miracle case such as of Jesus' alleged resurrection,

¹⁰⁴J. Houston helpfully points out that to say that X involves "question-begging" is not to say (as many radio and television commentators do) that X merely raises some other interesting questions; rather, it is to commit the fallacy of *petitio principii*, which is to say that the objection involves the mistake in reasoning wherein one assumes as proven that which needs to be proven and then uses the assumption in one's conclusion as if it (the assumption) were proved (J. Houston, *Reported Miracles* [Cambridge: Cambridge University Press, 1994], 6). For a helpful discussion of the fallacy of question-begging, see R. H. Johnson & J. A. Blair, *Logical Self-Defense*, 3rd edition (Toronto: McGraw-Hill Ryerson, 1993), 67-71.

¹⁰⁵Martin Curd, "Miracles as Violations of Laws of Nature," in *Faith, Freedom, and Rationality: Philosophy of Religion Today*, edited by Jeff Jordan & Daniel Howard-Snyder (Lanham, Maryland: Rowman & Littlefield Publishers, Inc., 1996), 183. By "theism" let us understand that there exists a very powerful, physically transcendent, and intelligent being -- a God or God-like being -- who has created the universe.

¹⁰⁶Christine Overall, "Miracles and Larmer," *Dialogue* 42 (2003): 125-126, 127-129. Overall sets out the objection as a conceptual/definitional problem. As has been argued in chapter 1 of this dissertation, the objection is not a problem that has to do with the *conceiving* or the *defining* of a miracle; it has to do with *using* a miracle as evidence. Contrary to what Curd and Overall think, however, to use miracles as evidence is not a problem, as will be argued in the main body of the present section.

is evidence for a miracle hypothesis *because it is suggestive of miracle*. As has been pointed out, in the case at hand we have very good knowledge of what the relevant natural causes can and cannot do. As mentioned previously, our knowledge of cell necrosis is super strong, and our universal experience (with the possible exception of Jesus' case) over thousands of years is that dead people, when left to themselves, do not resurrect. (We are talking here about resurrection into a superpowered body, not a mere resuscitation.) Moreover, resurrections are, as Beckwith previously pointed out, "more than presently inexplicable."¹⁰⁷ Indeed, Beckwith adds, "they are *prima facie* not the sorts of events about which one could speculatively develop and propose ad hoc hypotheses on the basis of which one can reasonably imagine they would be explicable under a future, yet undiscovered, scientific law."¹⁰⁸ Now, couple these points with the miracle-suggestive context of Jesus' alleged resurrection from death, as is given to us in the historical facts provided by Habermas. In this case, not only is the alleged miracle an event that is so very extraordinary and so seemingly far beyond the reaches of plausible naturalistic explanation, thereby suggesting a supernatural explanation, but also the resurrected person makes claims that the event is supernaturally caused and is part and parcel of a supernatural worldview (ancient Judaism), thereby suggesting a supernatural explanation even more. So, if we are dealing with a resurrection, which is an event that points beyond naturalistic explanation to the supernatural, and if we couple this with the resurrected person's claims that his resurrection is a sign that (among other things) serves as a vindication of his view that the supernatural cause of the universe is operating to make this sign happen, then we have grounds which surely *are* suggestive of a supernatural cause at work. Now, it should be emphasized that one does not *accept* the miracle hypothesis when one looks at alleged miracle evidence to consider the evidence as evidence for a miracle; rather, as Robert Larmer points out, one merely *entertains* the hypothesis -- one entertains the hypothesis to see if and how it fits with the relevant facts.¹⁰⁹ If such an *entertaining* of

¹⁰⁷Beckwith, "Theism, Miracles, and the Modern Mind," 225.

¹⁰⁸Beckwith, "Theism, Miracles, and the Modern Mind," 225.

¹⁰⁹Robert A. H. Larmer, *Water Into Wine? An Investigation of the Concept of Miracle* (Kingston & Montreal: McGill-Queen's University Press, 1988), 113-114; Robert Larmer, "Miracles, Evidence, and God,"

a miracle hypothesis shows that the miracle hypothesis fits well with the foreground data, i.e., physical facts surrounding the alleged miraculous event (i.e., Habermas's historical facts), and does so better than the competing hypotheses (i.e., alternative non-supernatural hypotheses), then that counts in favour of the miracle hypothesis. (Alleged miraculous events have a physical dimension which can be observed. In the case of Jesus' allegedly miraculous resurrection, these would consist of Habermas's three historical facts. The miracle hypothesis posits the operation of an unobservable entity -- a supernatural causal power -- to *make sense of* the observable, physical aspects of the alleged miracle, which are otherwise seemingly beyond the reach of plausible naturalist hypotheses.) *Moreover*, if such an entertaining of a miracle hypothesis *also* reveals other implications/ predictions for the world which, as it turns out (as this dissertation has attempted to show), we discover to be the case -- e.g., that the universe seems to have a very powerful, physically transcendent and intelligent source of matter/energy who caused the universe's beginning, and that the universe itself seems to be a miracle writ large -- then the miracle hypothesis fits *even better*. Such an entertaining of a hypothesis suggested by the facts is simply part of the process of casting about for a good hypothesis to explain some otherwise puzzling data, a process that is in this dissertation not restricted *a priori* by naturalistic limitations on theory construction. Thus, it is not an instance of circular reasoning.¹¹⁰

At this juncture, Overall might set out the following analogy in the hope of showing us that the force of the circularity objection remains intact:

Suppose I form the concept of a certain class of books that I define as unusual and significant literary works, beyond the power of ordinary writers to produce and written by a creator who transcends all previous writers. According to Larmer's method [and the method defended in this dissertation], I should "entertain the hypothesis" that the creator of such books exists. Suppose I then claim that I have found one example of such books, a book that fits my

Dialogue 42 (2003): 108. Larmer specifies that theism is the hypothesis in question. Here, the hypothesis is the claim that the causal power which produced MU also produced MR.

¹¹⁰And it would not be an instance of circular reasoning even if the assessment of the hypothesis' fit with the data turned out to be negative; this would simply be a case of a hypothesis that does not fit, i.e., an implausible hypothesis.

definition. In claiming that a particular book fits this definition, I am *already* saying that there is a creator who transcends all previous writers. I cannot then go on to use the book as evidence for the existence of that creator. Larmer's [and this dissertation's author's] definition of "miracle," which incorporates the idea of supernatural causation, incorporates the very point at issue: that a supernatural being causes miracles.¹¹¹

It seems that Overall may be mistaken, not Larmer (nor this dissertation's author), since Overall's casting about for and justification of a hypothesis to explain evidence is much too simplistic. If we were to claim that we found one of the above miracle-books, the claim would need to be substantiated by taking the following two steps (not necessarily in this order).¹¹² First, the physical evidence for the alleged miracle-book's occurrence/existence would have to be examined to see how well the miracle explanation handles that foreground evidence in comparison to how well non-miracle explanations handle it. Second, the concept of miracle-book would have to be unpacked to see if its logical implications/predictions are satisfied/confirmed by background evidence in the universe. If the foreground physical evidence fits well with what seems reasonable to believe about miracle-books (perhaps, as some allege of the Bible, its earlier writers make predictive prophecies that are later fulfilled, thereby suggesting an "overriding" authorship by some sort of supernatural, all-knowing mind¹¹³), and if the logical implications/ predictions arising from the concept of

¹¹¹Overall, "Miracles and Larmer," 126. Overall seems to have in mind the Bible or the Koran or the Book of Mormon or any book that purportedly is the Word of God.

¹¹²The two steps (stages) reflect the two senses of plausibility discussed earlier in this chapter. The first step concerns subsequent plausibility and the second step concerns antecedent plausibility. Both senses of plausibility can be in view when one assesses a hypothesis for its plausibility, or one can focus first on either one of the senses of plausibility and then the other, so the order of the steps can be interchangeable.

¹¹³For some interesting discussion of predictive prophecies and their alleged fulfillment, see: John Ankerberg, John Weldon & Walter C. Kaiser, Jr., *The Case for Jesus the Messiah* (Eugene, Oregon: Harvest House Publishers, Inc., 1989); Robert C. Newman, "The Testimony of Messianic Prophecy," in *Evidence for Faith: Deciding the God Question*, edited by John W. Montgomery (Dallas: Probe Books, 1991); James Smith, *The Promised Messiah: An in-depth study of 73 key Old Testament prophecies about the Messiah* (Nashville: Thomas Nelson Publishers, 1993); John F. Walvoord, *Major Bible Prophecies* (New York: HarperCollins/ Zondervan, 1991).

Not so incidentally, Kaiser is Academic Dean and Professor of Old Testament and Semitic Languages at Trinity Evangelical Divinity School, Deerfield, Illinois; Walvoord served as President and Professor of Systematic Theology at Dallas Theological Seminary from 1952 to 1986; Smith is Chairman of the Division of Biblical Studies and Professor of Old Testament at Florida Christian College; and Newman is Professor

miracle-book somehow fit well with what we find in the universe (contemporary science discovers, say, that the universe is in some relevant sense a miracle-book writ large), then the hypothesis of a (small-scale) miracle-book may be appropriate -- and so the book could be used as evidence for the existence of the book's author/creator. If this line of reasoning is acceptable, then, *pace* Overall, Larmer's method of entertaining is acceptable too.

Perhaps (probably) a less controversial analogy (this time from Larmer) would be helpful to illustrate Overall's mistake. Larmer contends that if we deny that miracles, which include the condition of supernatural causation in their definition, can be used as evidence for a supernatural causal power (theism for Larmer), then that "is like claiming that a corpse we are prepared to call a homicide victim cannot function as evidence for the existence of a murderer."¹¹⁴ Taking Larmer's analogy in stride, Overall continues to defend the circularity objection as follows:

Unfortunately, [Larmer's] analogy confirms my point, not his own. If we find a dead human body we can certainly ask, "Is this a case of homicide?" In attempting to answer the question, we can investigate whether there may be alternative explanations for the existence of the corpse, or whether homicide is the best explanation. But if we already *know* [Overall's italics] that that particular dead human body is the outcome of homicide, then by virtue of the description, "homicide victim," we are (already) saying that there is a murderer, that a murderer exists. . . . But it is circular for me to claim to have shown anything more than a tautology if I say, "Here is a murder victim. This shows that there is a murderer."¹¹⁵

In this example, Overall again attributes to Larmer an overly simplistic casting about for, and justification of, a hypothesis to explain evidence. Larmer's remarks -- i.e., his remarks about "entertaining" hypotheses and his remark that the corpse he is talking about is "a corpse *we are prepared* to call a homicide victim"¹¹⁶ --

of New Testament at Biblical Theological Seminary, Hatfield, Pennsylvania. The reason I point out the credentials of these authors is to dispel the myth that no scholars take predictive (Messianic) prophecy seriously.

¹¹⁴Larmer, "Miracles, Evidence, and God," 108.

¹¹⁵Overall, "Miracles and Larmer," 126.

¹¹⁶Larmer, "Miracles, Evidence, and God," 108; italics added for emphasis.

make it reasonable to think that Larmer would not claim to already *know*, prior to investigation, that the particular dead human body is the outcome of a homicide, and then in question-begging fashion conclude that the body is in fact the outcome of a homicide. Rather, Larmer would *entertain the possibility* that the homicide victim hypothesis, with all that it logically implies, fits the facts and does so better than alternative non-homicide-victim hypotheses (taking into consideration, of course, the previously discussed criteria of the two senses of plausibility). Interestingly, this is what Overall does (to her credit). For Overall to "investigate whether there may be alternative explanations for the existence of the corpse, or whether homicide is the best explanation," requires that she considers -- entertains -- the homicide victim description as a hypothesis. Why would *homicide victim* be the best explanation? Because the concept includes the idea that the death was caused by a murderer, this idea logically implies/ predicts evidence that smacks of a killer, and the evidence (say, finger-shaped bruising around the victim's neck) satisfies/ confirms the prediction in an elegant (simple) way, better than (i.e., more elegantly and comprehensively than) alternative hypotheses. Thus, *pace* Overall, Larmer's conceptualization of miracle does not carry the implication that he is saying, in tautologous fashion: "Here is a murder victim. This shows that there is a murderer." Rather, Larmer's conceptualization -- and the conceptualization of this dissertation -- carries the implication that he is saying, in *non*-tautologous fashion, the following: "Here is a murder victim. We make this claim because the logical implications of the concepts employed in the hypothesis *here is a murder victim* logically imply/predict the evidence at hand, are satisfied/ confirmed by the evidence at hand, plus handle the evidence at hand in a more elegant and comprehensive way than do the competing non-homicide hypotheses -- all of which serves to provide evidential support for *here is a murder victim*."

Still, it might seem to some critics that, in some sense, a serious question-begging remains because in this dissertation there seems to be, it might be alleged, no clear recognition of the difference between trying to argue, literally, *from* miracle reports regarded as "evidence" to theological conclusions, on the one hand; and on the other, proposing to try to make one or another theological view *logically consistent with* the data,

including the miracle reports in question. Although it seems to the author of this dissertation that this concern is addressed (by implication) above in the discussion of Curd and Overall's question-begging objection, it may nevertheless be helpful here to emphasize that in considering a miraculous resurrection hypothesis to explain some foreground physical facts (e.g., Jesus is dead, credible witnesses claim to see Him alive again, the witnesses would rather die than change their testimony), the fit of the hypothesis with respect to those foreground facts counts in favour of the hypothesis, as does the fit of the hypothesis' logical implications for the broader background facts of the world (e.g., there is background evidence of a very powerful, physically transcendent supernatural cause, i.e., God or a God-like being). As the Larmer-Overall discussion about the homicide case (above) makes clear, we are not looking at mere logical consistency, though logical consistency is important, of course. Rather, we are also looking at the satisfaction of a prediction made by the miracle hypothesis, which is something that counts in favour of a hypothesis in its handling of the evidence in question. As was pointed out in the introduction to the thesis, the overall defence of this thesis involves the following: a case is made for thinking that the concept of miracle which is adequate to capturing the miraculous nature of the virgin birth and the resurrection of Jesus in effect points to certain aspects of the world which, as it turns out, can be discerned by contemporary science and moral philosophy; then, taking a cue from the fact that a scientific theory gains scientific respectability when its predictions/implications are confirmed/satisfied, it is argued that the fact that these predicted/implied aspects of the world have been uncovered serves to add plausibility to a hypothesis which employs miracle. So the thesis *does* demonstrate a clear recognition of the difference of arguing, literally, *from* miracle reports regarded as evidence *to* theological conclusions, on the one hand; and on the other, proposing to try to make one or another theological view *logically consistent with* the data, including the miracle reports in question. How? By steering a course which rejects such simplistic approaches to handling evidence. The fact of the matter is that this dissertation takes a richer, "abductive" or inference/argument-to-the-best-explanation approach to the alleged miracle

evidence, an approach which is sensitive to the suggestiveness of evidence for theory construction.¹¹⁷ In effect, this dissertation's approach attempts to let the theory-suggestiveness of evidence speak for itself in the following manner: (1) We look at the foreground physical facts of an alleged miracle, facts that suggest a miracle; (2) we see how the miracle hypothesis handles these facts relative to competing non-miracle hypotheses; (3) we tease out the broader, background implications/ predictions of the miracle hypothesis; (4) we see how the miracle hypothesis handles those background implications/ predictions relative to competing non-miracle hypotheses; (5) we judge that the miracle reports are well evidenced or supported if the foreground fit and background fit are pretty good relative to the competition.¹¹⁸ Interestingly, this strategy of reasoning is pretty much the same as what happens in the murder case discussed by Larmer and Overall. (1) We look at the foreground physical facts of an alleged murder, facts that suggest the murder hypothesis (e.g., the dead body, the apparent finger marks around the neck); (2) we look at how the homicide hypothesis handles these facts relative to competing non-homicide hypotheses (e.g., we see that the homicide hypothesis handles the corpse and the apparent finger marks well whereas hypotheses which appeal to suicide or to "natural" causes do not); (3) we tease out the background implications/ predictions of the murder hypothesis (e.g., that there is some agent with strong hands who can do the deed); (4) we see how the murder hypothesis handles the background implications/ predictions relative to non-murder hypotheses (e.g., the existence of a murderer with strong hands who, as it turns out, has recently escaped from a nearby prison does justice to the facts whereas, say, a car accident or a fall down the stairs does not); (5) we judge that the murder hypothesis

¹¹⁷The sense of "abduction" here, according to John Woods is "'inference to the best explanation', which is a means of justifying the postulation of unobservable phenomena on the strength of explanations they afford of observable phenomena." (John Woods, "Inference," in *The Oxford Companion to Philosophy*, edited by Ted Honderich [Oxford & New York: Oxford University Press, 1995], 407.)

¹¹⁸Steps 1 and 2 occur in chapter 5 when Jesus' resurrection is examined as a test case. Step 3 occurs in chapter 1 when the concept of miracle is examined. Step 4 occurs in (a) chapters 2, 3, and 4 when it is discerned that the miracle concept's implications/ predictions for the (larger) world are satisfied/confirmed and (b) chapter 5 when the fit of the miracle hypothesis with the local as well as non-local facts that it is supposed to handle is examined. Step 5 occurs in chapter 5 when the criteria of plausible explanation are applied to the miracle hypothesis in order to explain the test case.

is well evidenced or supported if the foreground fit and background fit are pretty good relative to the competition. If the reasoning in the homicide case is acceptable, then so too is the reasoning in the theological case.

Perhaps it would be helpful to better understand the above cases of handling evidence by describing the handling *solely* in terms of *theory-laden* facts and *theory-suggestive* facts. Our conceptual analysis of miracle (see chapter 1) is an analysis of a theory-laden fact (i.e., the event in question is theorized as, *inter alia*, caused by a supernatural agent). Similarly, our conceptual analysis of murder is an analysis of a theory-laden fact (i.e., the event in question is theorized as, *inter alia*, caused by a human agent). In both cases the theory-ladenness of the hypothesized fact stems from the theory-suggestiveness of the foreground facts which we will attempt to explain by the hypothesized fact. The successful *entertainings* of a miracle hypothesis and a murder hypothesis to see that they are supported by evidence depend upon the successful fit of appropriate theory-suggestive foreground facts and background data. Just as the appropriate theory-suggestive foreground facts and background data can be found in the case of the murder hypothesis, as we have seen, so too the appropriate theory-suggestive foreground facts and background data can be found in the case of the miracle hypothesis, as we have seen too. And none of this involves question-begging, as we have also seen.

Therefore, this dissertation's appeal to a miracle (MR) as evidence of divine or supernatural intelligent causal intervention (by the cause of MU) does *not* involve question-begging; moreover, the question-begging charge seems to arise from an overly simplistic understanding -- i.e., a *misunderstanding* -- of the relationship between evidence and a hypothesis supported by that evidence.

3. Mystery Objection

Does not the fact that the causal power in question -- i.e., agent causation -- is *mysterious* (as admitted above in point #6) render the appeal to agent causation untenable? The answer seems to be No. The admission concerning the mysteriousness of the causal power, which is reasonable to believe to be very

powerful, physically transcendent, and intelligent, need not count against the causal power's existence.¹¹⁹ Why? Consider the following argument. It very much seems that the concept of a supernatural intelligent agent does not incur a violation of the principle of noncontradiction.¹²⁰ Also, it very much seems that the two miracles in question (MU and MR) do not violate the principle of the conservation of energy (i.e., the first law of thermodynamics).¹²¹ In addition, it very much seems that the mystery of the causal aspect of agent causation is not unique to agent causation -- indeed, as Roderick Chisholm points out, the mystery of the causal aspect of agent causation is a "difficulty . . . that may be traced to the concept of causation generally" and "must be faced by anyone who makes use of the concept of causation at all . . ."¹²² Chisholm defends his claim as follows. The notion of agent-event causation is different from the event-event causation that we typically find in the natural world. However, there are similar problems for both agent-event causation and event-event causation. The problem for agent-event causation is that saying that an agent *caused* event A seems not to add anything to the assertion that A just *happened by itself*. The problem for event-event causation is that saying that the first event B *caused* the second event A seems not to add anything to the assertion that there was simply a *succession* of events. Yet, as Chisholm points out, we nevertheless conclude "that in the one case the agent was the cause of A's happening and in the other case event B was the cause of

¹¹⁹The idea of admitting the mysteriousness of agent causation but not intending this admission as an argument against its existence comes from Peter van Inwagen, *Metaphysics*, Dimensions of Philosophy Series, series edited by Norman Daniels & Keith Lehrer (Boulder/San Francisco: Westview Press, 1993), 194. But here I apply the idea to a supernatural agent.

¹²⁰As mentioned previously, the logical coherence of the concept of a supernatural intelligent agent (such as God or a God-like being) is an assumption of this dissertation, an assumption that has been ably defended elsewhere (for references, see the introduction of this dissertation).

¹²¹The claim that a miracle does not violate the principle of the conservation of energy (also known as the first law of thermodynamics) was defended in chapter 1. For additional discussion, see Larmer, *Water Into Wine?*, 24-27 & 61-73. See too Robert Larmer, "Miracles and Conservation Laws: A Reply to MacGill," *Sophia* 31:1 & 2 (1992): 89-95; reprinted in Robert A. Larmer, editor, *Questions of Miracle* (Montreal & Kingston: McGill-Queen's University Press, 1996), 69-75.

¹²²Roderick M. Chisholm, "Human Freedom and the Self," in *Free Will*, edited by Gary Watson, Oxford Readings in Philosophy (Oxford & New York: Oxford University Press, 1982), 31. This article is Chisholm's Lindley Lecture presented in 1964 in the philosophy department of the University of Kansas.

A's happening."¹²³ But more can be said. According to Chisholm, "we may plausibly say . . . that it is only by understanding our own causal efficacy, as agents, that we can grasp the concept of *cause* at all."¹²⁴ How can this be plausibly said? Chisholm appeals to David Hume and Thomas Reid.¹²⁵ From Hume we learn that our understanding of the concept of cause is not derived from the constant conjoinings of events B and A.¹²⁶ From Reid we learn that our understanding of the concept of cause ultimately comes from our experience *as* causal agents producing effects.¹²⁷ From chapter 3's discussion of the Kantian critic's claim that we allegedly merely project cause onto the world we learn that we can accurately discern (recognize) causes as they actually occur in the world even though we do not know the nature of these causes.¹²⁸ It very much seems, then, that the mystery of the causal aspect of agent causation *is* a mystery for causation generally, yet is not a problem. Significantly, this means that the notion of agent causation is not knocked out of the explanatory competition at the starting blocks. The issue, then, is this: Are there good grounds for believing that the mystery of agent causation is instantiated in the cases of MU and MR? There very much seems to be, as the cumulative impact of the above nine points indicate.

At this juncture, one might raise the mystery objection as a problem of language. That is, one might

¹²³Chisholm, "Human Freedom and the Self," 31.

¹²⁴Chisholm, "Human Freedom and the Self," 31.

¹²⁵Chisholm, "Human Freedom and the Self," 31.

¹²⁶David Hume, "Of the Idea of Necessary Connexion," in *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, 3rd edition, edited by L. A. Selby-Bigge, revised by P. H. Nidditch (Oxford: Clarendon Press, 1975), 60-79. As John P. Wright points out in his *The Sceptical Realism of David Hume*, Studies in Intellectual History (Minneapolis: University of Minnesota Press, 1983), there are two ways we can understand Hume on the matter of causal connections. On one understanding of Hume, there is no causation: all there is is constant conjunctions between events. On another understanding of Hume, constant conjunctions between events are to be understood as a sign of causal connections which we believe or assume to exist. Either way, our understanding of the concept of cause is not derived from the constant conjoinings of events B and A.

¹²⁷Thomas Reid, *Essays on the Active Powers of the Human Mind* (Cambridge, Massachusetts: M.I.T. Press, 1969), essay 4, chapter 4.

¹²⁸See chapter 3, section VI.

object that while the notions of human agency and causation are appropriate in the realm of everyday discourse having to do with humans, such notions do not transfer legitimately to the realm of the divine. After all, God and God-like beings differ vastly from the sorts of things we usually experience. Moreover, the distinction made in this dissertation has had to do primarily with intelligent (agent) causes versus non-intelligent (mechanical) causes, not human causes versus divine causes. In reply, it seems that Aquinas's theory of analogy, when supplemented with the findings of this dissertation, will allow us to bridge the apparent chasm between everyday language and language about the divine.¹²⁹ According to Aquinas, it is true that God's (or a God-like being's) mode of being, which is (using the terms of this dissertation) nature-transcendent, super-powerful, and super-intelligent, is vastly different from a human's mode of being, which is within nature and, relative to God (or the God-like being), extremely limited in power and intelligence, and therefore it is true too that predicates from everyday human discourse cannot be univocal when applied to the realm of the divine. To illustrate, Aquinas points out that when we use the word "wise" to describe a man, "we signify his wisdom as something distinct from the other things about him -- his essence, for example, his powers or his existence"; but, Aquinas adds, "when we use this word about God we do not intend to signify something distinct from his essence, power or existence."¹³⁰ Also, Aquinas readily concedes, the predicates from everyday discourse which we use to describe God cannot be equivocal either. If they were, then, as Aquinas points out, "we could never argue from statements about creatures to statements about God...."¹³¹ Indeed, Aquinas adds: "[A]ny such argument would be invalidated by the Fallacy of Equivocation."¹³² Aquinas finds a middle ground in his theory of analogical predication, which Brian Davies helpfully describes

¹²⁹What follows is from St. Thomas Aquinas, *Summa Theologiae*, Blackfriars edition, Volume 3 (London & New York: Eyre & Spottiswoode/ McGraw-Hill Book Company, 1964), Ia.13.5. See too St. Thomas Aquinas, *Summa Contra Gentiles*, translated by Anton C. Pegis, under the title *On the Truth of the Catholic Faith* (New York: Doubleday and Co., 1955), 1.28-34.

¹³⁰Aquinas, *Summa Theologiae*, Ia.13.5.

¹³¹Aquinas, *Summa Theologiae*, Ia.13.5.

¹³²Aquinas, *Summa Theologiae*, Ia.13.5.

as "the view that the same word can be literally applied to different things neither univocally nor equivocally."¹³³ Aquinas illustrates his theory of analogy with the term "healthy." We can apply the term "healthy" to a human being, a human being's complexion, and a human being's diet. In each of the cases, the predication of "healthy" is not exactly the same, i.e., it is not applied univocally. A healthy complexion is a symptom of a healthy state of the human being and the healthy state is caused by (at least in part) a healthy diet. To buttress Aquinas' view, Davies points to Ludwig Wittgenstein's famous passage in the *Philosophical Investigations* on the use of the word "games." Wittgenstein writes: "Consider for example the proceedings that we call 'games.' I mean board-games, card-games, ball-games, Olympic games, and so on. . . . [I]f you look at them you will not see something common to *all*, but similarities, relationships, and a whole series of them at that. . . . [W]e can go through the many, many other groups of games . . . [and we] can see how similarities crop up and disappear."¹³⁴ And so Davies concludes:

It seems wrong, then, to hold that the same words literally applied must always bear exactly the same meaning or be used on some occasions in ways that are without sense. And it therefore also seems wrong to insist that nobody can talk significantly about God since words applied to him do not mean exactly what they do when applied to other things. To put it another way . . . just because people do not apply words to God and to creatures either univocally or equivocally, it does not follow that they cannot talk about God significantly and literally. That is what [Aquinas's] theory of analogy is basically saying, and in this it is surely right.¹³⁵

Davies, however, believes that a problem remains. He thinks (rightly) that to avoid arbitrarily placing descriptive terms onto God, "Some reason must be given for choosing the terms which are actually applied to him."¹³⁶ Aquinas believed that his arguments for God provided this reason. Whether Aquinas is correct

¹³³Brian Davies, *An Introduction to the Philosophy of Religion*, 2nd edition (Oxford & New York: Oxford University Press, 1993), 28.

¹³⁴Ludwig Wittgenstein, *Philosophical Investigations*, translated by G. E. M. Anscombe (Oxford: Basil Blackwell, 1958), paragraph 66, pages 31-32.

¹³⁵Davies, *An Introduction to the Philosophy of Religion*, 29.

¹³⁶Davies, *An Introduction to the Philosophy of Religion*, 30.

or not, it seems to this dissertation's author that the arguments of this dissertation do the same. Consider chapter 4's argument from design (here is a very condensed version of the argument):

1. The world, W, has property F.
2. We know that intelligent causes produce things with properties relevantly similar to F.
3. We know that attempts to explain W's F in terms of non-intelligent causes fail.
4. Therefore, it is reasonable to think that W was made by an intelligent cause.

The extrapolation of our use of "cause" from our ordinary, low-level examples, though huge, is warranted because of F's nature. Consider the examples of F that are used in chapter 4. In the case of DNA, F is computer software that is much, much more sophisticated than the software built by known intelligent causes, i.e., humans. As was pointed out in chapter 4, DNA's language/code can be compared to *supersoftware*, i.e., software that is so complex and so sophisticated that it is beyond Bill Gates and Microsoft's present ability to copy -- as Gates himself admits. F, then, points us not merely to an intelligent cause but to a *superintelligent* cause, which seems appropriate for the case of W. (Note: "super" is here understood as *extremely* or *very very very*.) In the case where F is the cell's molecular machines, it is clear that the machinery is very much like modern, hi-tech machinery built by known intelligent causes, i.e., humans -- contemporary engineers, even. In fact, as I was pointed out in chapter 4, each cell *is* constituted by intricate, hi-tech machines which work together as an elaborate factory (i.e., it is not a mere analogy; they *are* machines). Because the human organism is super-complex system made up of *trillions* of such machine- and factory-containing cells, F, then, points us not merely to an intelligent cause but to a *superintelligent* cause. In the case where F is the fine-tuning of the universe's initial conditions to instantiate intelligent human life (i.e., that which has objective moral value), it is clear that this fine-tuning is very much like fine-tuning undertaken by known intelligent causes, i.e., humans, but -- again -- to a much greater degree. This is made clear in chapter 4 (IV.B.2), and the relevant passage is repeated here for convenience (without explanatory footnotes):

We know on the basis of our everyday experience of agency (human agency) that, as Ratzsch points out, "Degree of care -- investment -- in structuring, generating, and maintaining, is a

reasonable indication of valuing." The sense of "valuing" with which Ratzsch is concerned here is not a valuing which gives the object its value; rather, it is a valuing which is an activity or "pursuit" (Ratzsch's word) that reflects, or is responding to, or is aimed at, the intrinsic value of the object in question. The more intensive and precise the care in structuring, generating, and maintaining X, the greater the valuing (in the aforementioned sense) of X. We also know from contemporary science that there is a very apparent and marvellously-high degree of fine-tuning -- an exquisite precision in "contriving," structuring and generating -- of the universe which allows for intelligent human life to obtain. We know too, as was argued in chapter 2 of this dissertation, that human beings are an intrinsically valuable commodity. So it is reasonable to think that an *outcome* of the aforementioned fine-tuning, i.e., intelligent human life, has value -- objective moral value -- independent of the fine-tuning. . . . But this suggests quite strongly that it is reasonable to think that the marvellously high degree of fine-tuning of the universe seems very much to be evidence of intensive care. So, if the fine-tuning of the universe has the marks of intensive care, which is reasonable to think that it does, and if the outcome of the fine-tuning of the universe has the marks of objective moral value, which is also reasonable to think that it does, then a rough yet reasonable stab can be made regarding the intention of an intelligent designer: the intelligent designer intends to instantiate or promote a particular value, namely, intelligent human life. Intelligent human life, because it has objective moral value, can quite reasonably be seen to serve as a goal for the highly integrated and correlated factors which are required for the realization of intelligent human life. It is, then, this matching of apparently intense care with the achievement of an objective moral value which provides us with a reasonable case of valuing, and valuing seems very much to be an instance of deep mind affinity.¹³⁷

Thus, it is reasonable to think that the extrapolation of our use of the word "cause" from our ordinary, low-level examples, though huge, is warranted because of F's nature, a nature that can be seen as an effect that smacks of a purposive mind with great intelligence -- a superintelligent cause.

To be sure, we may not be wholly clear on the nature of this superintelligent cause; nevertheless, it is reasonable to think that we can speak meaningfully -- via the analogical use of language -- about this cause. As Davies points out, "One does not have to know exactly what a word means in order to have some understanding of it or use it significantly. I may not know what a volcano is exactly, but I can still talk sensibly about volcanoes."¹³⁸ It makes sense for one to speak of a volcano that "spews forth" its contents as a stomach spews forth -- ejects -- its contents, even though one is unclear of a volcano's nature. It would seem

¹³⁷The Ratzsch citation is from Ratzsch, *Nature, Design, and Science*, 73.

¹³⁸Davies, *An Introduction to the Philosophy of Religion*, 31.

that the case with a nature-transcending, powerful, super-intelligent cause vis-à-vis human (intelligent) cause is relevantly similar.¹³⁹

4. Troeltsch/Flew-type Objection(s)

At this juncture, one might object as follows: All this discussion about the universe being a miracle writ large is beside the point -- does there not remain an unanswered Troeltsch/Flew-type objection concerning historical hypotheses? To understand this Troeltsch/Flew-type objection, we will first look at Ernst Troeltsch's complaint, and then at Flew's.

According to Troeltsch, the principle of making analogies with what might be called present day "middle-sized objects" is crucial to our coming to understand the past: "On the analogy of the events known to us we seek by conjecture and sympathetic understanding to explain and reconstruct the past."¹⁴⁰ Troeltsch's idea is that via analogy coupled with the assumption that nature behaves uniformly we apply what we know about the present onto evidence having to do with the past, and thereby we extend our knowledge into the realm of the past. Because we have no knowledge (supposedly) of miracles occurring today (e.g., all dead men stay dead), we infer via analogy, on the basis of historical evidence present to us (e.g., testimony that Jesus resurrected), that no miracle occurred in the past (i.e., no resurrection of Jesus occurred).

Flew makes an objection similar to Troeltsch's objection, albeit in a somewhat more extended fashion, when he (Flew) discusses what he takes to be the criteria and presuppositions of so-called critical history:

The heart of the matter is that the criteria by which we must assess historical testimony, and the general presumptions that alone make it possible for us to construe the detritus of the past

¹³⁹For a defence of the logical coherence of a *timeless* intelligent cause, see William Lane Craig, "Divine timelessness and personhood," *International Journal of Philosophy of Religion* 43 (1998): 109-124.

¹⁴⁰Ernst Troeltsch, "Historiography," in *Encyclopedia of Religion and Ethics*, Volume 6, edited by James Hastings (New York: Charles Scribner's Sons, 1922), 718. The specification of "middle-sized objects" is not Troeltsch's, though he assumes it. The full phrase, "middle-sized objects of our everyday acquaintance" comes from Kai Nielsen, "Rationality and Relativism," *Philosophy of Social Science* 4 (1974): 317.

as historical evidence, must inevitably rule out any possibility of establishing, on purely historical grounds, that some genuinely miraculous event has indeed occurred. . . .

The basic propositions are, first, that the present relics of the past cannot be interpreted as historical evidence at all unless we presume that the same fundamental regularities obtained then as still obtain today. Second, that in trying as best they may to determine what actually happened, historians must employ as criteria all their present knowledge, or presumed knowledge, of what is probable or improbable, possible or impossible. Third, that, since the word *miracle* has to be defined in terms of physical necessity [i.e., natural law] and physical impossibility [i.e., a miracle is a "violation" of natural law] the application of these criteria inevitably precludes proof of the actual occurrence of a miracle.¹⁴¹

Does the Troeltsch/Flew objection succeed? With help from Francis Beckwith plus some additional argumentation, we will see that it does not, for two main reasons: (a) it commits the fallacy of question-begging, and (b) it confuses crucial concepts in its reasoning by analogy.

(a) Troeltsch/Flew objection commits question-begging fallacy

The Troeltsch/Flew objection commits the question-begging fallacy because the objection presupposes as proven or established that which is at issue, namely, that the same fundamental regularities obtained in the

¹⁴¹Antony Flew, "Neo-Humean Arguments about the Miraculous," in *In Defense of Miracles: A Comprehensive Case for God's Action in History*, edited by R. Douglas Geivett & Gary R. Habermas (Downers Grove, Illinois: InterVarsity Press, 1997), 49. Note: This essay by Flew was commissioned specifically for this anthology. Similar comments by Flew appear in Flew's introduction to David Hume, *Of Miracles* (La Salle, Illinois: Open Court, 1985), see especially page 13. The above assessment of the Troeltsch/Flew objection will show that the assumption made by McCullagh, Bultmann, Lüdemann, and Funk *et al.* – i.e., the miracle-precluding assumption of metaphysical naturalism dressed in science talk – is faulty.

The Stanford University theologian Van A. Harvey takes a position that is pretty much the same as that of Troeltsch and Flew and company. According to Harvey, "the historian makes his judgments against the background of present knowledge" (Van A. Harvey, *The Historian & the Believer* [New York: The Macmillan Company, 1966], 87). This background is, according to Harvey, "informed by the new way of looking at the world created by the sciences" (Harvey, *The Historian & the Believer*, 68). Harvey understands this to mean that miracles are ruled out by the laws of nature (Harvey, *The Historian & the Believer*, chapter 3). Harvey sets out the same view in Van A. Harvey, "New Testament Scholarship and Christian Belief," in *Jesus in History and Myth*, edited by R. Joseph Hoffmann & Gerald A. Larue [Buffalo, New York: Prometheus Books, 1986], 193-200. In the later work, Harvey again understands the "background of our critically interpreted present experience" to rule out supernatural causes (Harvey, "New Testament Scholarship and Christian Belief," 200). The upcoming assessment (above) of the Troeltsch/ Flew objection will apply to Harvey too.

past still obtain today. Beckwith makes a clear and cogent case for the question-begging charge, so he will be quoted here *in extenso*:

Flew and Troeltsch are certainly correct if they are merely saying that we must assume some continuity and consistency between the present and the past in order to acquire any historical knowledge. After all, in order to justify their belief that a miracle has occurred, believers in miracles rely on criteria developed in a number of disciplines -- archaeology, forensic medicine, law, literary theory, psychology, for example -- which all depend on the assumption that the regularities of the present are the regularities of the past. However, if Flew and Troeltsch are saying that historians cannot have historical knowledge unless they assume that *regular* events (that is, nonmiraculous events) are the only ones that have ever occurred, then their position begs the question. That is, they assume the truth of a nonmiraculous worldview in order to prove that one cannot justify a miraculous worldview.¹⁴²

Because Flew and Troeltsch *are* saying that historians cannot have historical knowledge unless they assume that *regular* events -- that is, nonmiraculous events -- are the only ones that have ever occurred, their position *does* beg the question.

But, a miracle skeptic might respond, do not Troeltsch and Flew have at least *some* justification for their view because a miracle is, by definition, as Flew points out, a "physical impossibility"? Some clarification of the notion of physical impossibility may be helpful here, to better understand the objection suggested by the skeptic's question. Flew explains: "What is physically or, if you like, naturally impossible is what is logically incompatible with true laws of nature."¹⁴³ This means, as Evan Fales points out (approvingly), "If *E* [a miraculous event] is known to be improbable or impossible relative to antecedent physical conditions and laws of nature, then one is justified in believing that *E* occurred only if the evidence for it is stronger than the antecedent improbability."¹⁴⁴ Hence, is it not reasonable for Flew and Troeltsch (and

¹⁴²Francis J. Beckwith, "History & Miracles," in *In Defense of Miracles: A Comprehensive Case for God's Action in History*, edited by R. Douglas Geivett & Gary R. Habermas (Downers Grove, Illinois: InterVarsity Press, 1997), 96-97.

¹⁴³Flew, "Neo-Humean Arguments about the Miraculous," 51.

¹⁴⁴Evan Fales, "Successful Defense? A Review of *In Defense of Miracles*," *Philosophia Christi* 3:1 (2001): 12.

Fales) to hold that the natural impossibility of a miracle counts against its occurrence, making it highly improbable?

One should think not. To be sure, Flew is correct to say and Troeltsch is correct to assume that historians must employ as criteria all their present knowledge, or presumed knowledge, of what is probable or improbable, possible or impossible. But, and this is what seems to go unnoticed, to say that a miracle is physically/naturally impossible is merely to say that the miracle is contrary to what the relevant true natural law would predict *given no supernatural intervention*. Herein lies the problem. When we are investigating an alleged miracle, that is, when we are investigating the physically/ naturally impossible -- which Troeltsch and Flew supposedly are doing when they examine historical testimony and relics and detritus of the past which purportedly have to do with miracles -- we are *no longer given* the assumption that there is no supernatural intervention. Because the object of the investigation smacks of supernatural causation (recall the above discussion above about our excellent knowledge concerning the impossibility of naturally caused resurrections and the context/claims of the miracle worker) the assumption that there is no supernatural intervention must be put on hold, especially if we cannot rule out the existence of a supernatural intelligent agent -- and even more especially if, as previous chapters have made reasonable to believe, the evidence of a supernatural intelligent agent has been *ruled in*. But Flew and Troeltsch and Fales do not put this assumption on hold.

To see Flew and company's problem more clearly, perhaps it would be helpful to approach the matter in a slightly different way. Flew claims that what is naturally impossible (i.e., a miracle) is what is logically incompatible with true laws of nature. What does this mean? Consider this. As was discussed in chapter 1, a true law of nature looks like the following: Every A is a B, *ceteris paribus* -- i.e., every A is a B, given no interference, natural or otherwise. What is logically incompatible with this law is the following: The event that some A is a C, *given that this A was not interfered with*. In other words, Flew defines a naturally impossible event in such a way that the definition presupposes that there can be no interventions --

supernatural interventions included! But this is to assume what is at issue. So the question-begging charge sticks.

Perhaps the above reasoning has been left too enthymematic. Could not miracle skeptics concede the *possibility* of supernatural intervention yet still be justified in thinking that a supernatural intervention is *improbable*, and so in this way they would avoid the question-begging charge? After all, as Hume has famously argued, a miracle "violates" the regular course of nature (i.e., it goes against what the regular course of nature would predict), and this very fact seems very much to be sufficient grounds for thinking that the miracle is highly improbable. According to Hume, "A miracle is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, from the very nature of the fact, is as entire as any argument from experience can possibly be imagined."¹⁴⁵ Moreover, as J. L. Mackie points out (in defence of Hume), "whatever tends to show that [the alleged miracle] would have been a violation of natural law [i.e., a going against the prediction of natural law] tends for that very reason to make it most unlikely that it actually happened."¹⁴⁶ Also, Mackie points out, "It is this maximal improbability that the weight of the testimony would have to overcome."¹⁴⁷ The notion of probability under discussion here can be understood in terms of what Dorothy Coleman describes as "probability pertaining to events qua instances or tokens of event types."¹⁴⁸ According to Coleman, the greater the event's conformity to the relevant causal laws, the greater is the event's probability; and the greater the event's *nonconformity*, the greater its *improbability*. An event such as Jesus' alleged resurrection would seem not at all to conform closely to the

¹⁴⁵David Hume, "Of Miracles," in *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, edited by L. A. Selby-Bigge, 3rd edition, revised by P. H. Nidditch (Oxford: Clarendon Press, 1975), 114. We will skip making a fuss over the apparent question-begging due to reading the above passage in such a way that "a firm and unalterable experience" presupposes no experiences to the contrary. It is more charitable to Hume to read this simply as *general* experience.

¹⁴⁶J. L. Mackie, *The Miracle of Theism: Arguments for and against the Existence of God* (Oxford: Oxford University Press, 1982), 26.

¹⁴⁷Mackie, *The Miracle of Theism*, 25.

¹⁴⁸Dorothy Coleman, "Hume, Miracles and Lotteries," *Hume Studies* 14:2 (November 1988): 333.

relevant causal laws and thus would be deemed highly improbable. So, on this objection, it seems reasonable to think that Flew and company could concede the possibility of supernatural intervention yet still be justified in thinking that a particular supernatural intervention is highly improbable, and thus avoid the question-begging charge.

Again, one should think not. Given the possibility of a supernatural intervention -- a possibility that *should* be given if we are seriously investigating what might be a supernatural intervention and if we are accepting the work of this dissertation, work concerning the existence of a very powerful, transcendent, and intelligent causal source of matter/energy -- the only way to know that a particular supernatural intervention is improbable requires that we know that the intentions of the supernatural being are such that there probably will be no interventions. However, as was argued earlier in this chapter, it seems quite clear that (apart from a direct revelation) we do not know the intentions regarding intervention of the supernatural, powerful and intelligent causal source of matter/ energy that seems to exist. Thus, to judge (and thereby rule out) the possible interventions as improbable right from the start *is* to assume what is at issue. Hence, the question-begging charge against the miracle skeptic's argument remains.

But perhaps the notion of probability by which Hume *et al.* judge miracles improbable should not be understood in Coleman's sense, that is, as conformity to natural law. According to Beckwith, the Humean improbability of miracles can be understood (too) in terms of the relative frequency theory of probability.¹⁴⁹ For example, Jesus' alleged resurrection, is, relative to the very huge population constituted by other people's behaviour after death, highly infrequent, and, hence, highly improbable -- too improbable to be outweighed by the probability to the contrary stemming from the particular historical testimony/evidence.

This does not work either, for two reasons.

First, it is reasonable to believe that highly improbable events which have occurred in the past can be

¹⁴⁹Francis J. Beckwith, *David Hume's Argument Against Miracles: A Critical Analysis* (Lanham, Maryland: University Press of America, 1989), 68. See too Hendrik van der Breggen, "Hume, Miracle Reports, and Credibility," (M.A. thesis, University of Windsor, 1994), chapter 2, especially pp. 44ff.

established (as reasonable to believe) on the basis of historical testimony/evidence. We are not here thinking of the reasonableness of believing a newspaper report of, say, Jones's very improbable winning of last week's Lotto 649 multi-million dollar jackpot. Regarding these sorts of events, George Mavrodes correctly observes: "A single testimony, often by a reporter completely unknown to us, seems sufficient to convert a staggering improbability into something considerably more likely than not."¹⁵⁰ An important disanalogy here for our discussion, however, is that in the lottery example it is probable that *somebody* wins whereas this seems not at all obvious with the case of the resurrection. Nevertheless, a more appropriate analogy can be set out. David Johnson sets out such an analogy very aptly, so I quote Johnson extensively:

Consider an analogy, one that is interesting to think about in its own right. Suppose we have an exceedingly large urn, which we know to contain trillions of marbles. Suppose that we are able to sample marbles from many different regions of the urn. Let the sample be exceedingly large, though far from exhaustive; let it be as wide-ranging as we like; let us be able to conduct experiments by deliberately choosing some hitherto unexplored region of the urn to sample; or let the sampling be random, or whatever seems best. Suppose that all the very many marbles hitherto observed are green, strongly inductively supporting the hypothesis that all the marbles in the urn are green. ... The vast urn is the universe. 'All marbles in the urn are green' is an apparent "law" of this universe, one exceedingly probable relative to the body of inductive evidence which supports it. Now, a *red* marble in the urn would be the analogue of a miracle, and there being a red marble in the urn is exceedingly improbable relative to the body of inductive evidence which so strongly supports the apparent "law" that all marbles in the urn are green.¹⁵¹

Johnson continues:

Suppose, though, that the following further information is available. Someone who is apparently -- based on a substantial independent body of information we have about him or her -- trustworthy, sober, sincere, visually and otherwise capable, and so on (here let the witness be your favorite person, other than yourself, of this type), swears to us with all apparent sobriety, sincerity, seriousness, and so forth, and persists in this even at great personal cost, that he or she was able to look inside the urn on one special occasion, found

¹⁵⁰George I. Mavrodes, "David Hume and the Probability of Miracles," *International Journal for Philosophy of Religion* 43 (1998): 168.

¹⁵¹David Johnson, *Hume, Holism, and Miracles*, Cornell Studies in the Philosophy of Religion, series edited by William P. Alston (Ithaca & London: Cornell University Press, 1999), 25.

a red marble inside and (taking it out) spent a long time carefully examining it in good normal light, noting its obvious and exquisite redness, and then put it back into the urn. *Must* it be exceedingly probable, relative now to *all* the available and relevant information, that all the marbles in the urn are green, and exceedingly improbable that there is at least one red marble in the urn?¹⁵²

Johnson's answer: He doubts that anyone would bet his/her life on it.¹⁵³

We can go further. In the urn example, the move to take the general infrequency of an event, i.e., the infrequency of a red marble, to count as evidence against the occurrence of a particular event in a specific historical situation, i.e., the sampling of a red marble by our witness, requires the assumption that the high probability that a red marble is rare logically implies that there is a high probability that there is no red marble. But this is a mistake. In fact, it confuses the truth -- that a high probability that there is no red marble logically implies that there is a high probability that a red marble is rare -- for its converse, which is false. (It is false that a high probability that a red marble is rare logically implies that there is a high probability that there is no red marble.) Perhaps one might object that the high probability that a red marble is rare at least *counts in favour of thinking* (instead of logically implying) that there is also a high probability that there is no red marble. After all, instead of an iron-clad deductive logical relation, based on logical necessity, there is a looser inductive relation based on our experience, which is what the thought experiment is supposed to be getting at. The idea is that because *our* (or our group's) experience of a red marble is zero, that experience should count against our believing the testimony of the witness who claims to have experienced the red marble. In spite of its apparent plausibility, this objection seems very much to fail. To be sure, our zero experience of red marbles counts in favour of believing that red marbles are rare, and so the probability that red marbles are rare increases. Also, our zero experience of red marbles counts against believing that red marbles are common, and so the probability that red marbles are common decreases. But what about the

¹⁵²Johnson, *Hume, Holism, and Miracles*, 25-26.

¹⁵³Johnson, *Hume, Holism, and Miracles*, 26.

thesis that in the urn, which contains *trillions* of marbles, there are *no* red marbles *at all*? If we assume that there are no red marbles, then our zero experience of red marbles is expected. But, and significantly, if we assume that there is one red marble or that there are very few red marbles, then our zero experience of red marbles is expected too. Now, because in the case of Johnson's urn scenario these two assumptions make a virtually infinitesimal difference to the likelihood of our experience of observing a red marble, our failure to observe a red marble makes no significant difference to discerning the truth of either of the claims that there are no red marbles or that there is one red marble. It is reasonable to think, therefore, that our failure to observe red marbles has little or no relevance to the truth of those claims -- and so should count very minimally if at all against the truth of our witness's testimony.¹⁵⁴

The second reason that the infrequency interpretation of improbability does not work against historical testimony/evidence that smacks of the miraculous is that to make the appropriate probability calculation, information concerning frequency is not enough: *information concerning the intentions of the supernatural being who causes the miracle is also needed*. When an event signals the operation (or possible operation) of the supernatural realm, frequency probabilities based on natural assumptions should get put on hold.

But perhaps the reasoning has been too enthymematic, again. Could not Flew and company concede the possibility of supernatural intervention yet still be justified in thinking that a supernatural intervention is improbable -- but this time the probability judgment is based not on empirical considerations but on what is *a priori* reasonable to believe about the God-like being's mind -- and so *in this way* they would avoid the question-begging charge? Flew argues the case as follows:

Suppose that we did have sufficient evidencing reason to believe in the existence of a God discovered to be the omniscient and omnipotent ultimate sustaining cause of everything that exists and of everything that happens in the universe. Would it not, absent any revelation to the contrary, be reasonable to presume that God would see to it that everything in the

¹⁵⁴For more on this line of reasoning, but more directly applied to Jesus' resurrection, see Mavrodes, "David Hume and the Probability of Miracles," 167-182, especially 176ff. In the view of this dissertation's author, staying with the urn example illustrates the relevant issues more clearly than switching to the resurrection case.

universe is always as that God wishes it to be?¹⁵⁵

Flew adds:

Absent revelation to the contrary, the expectation of natural reason must surely be that such a creator god would be as detached and uninvolved as the gods of Epicurus.¹⁵⁶

Would the question-begging charge be sidestepped in this way? We should think not, for the following reasons. First, the being under discussion in this dissertation is the very powerful, supernatural, intelligent causal source of matter/energy who brought the universe into being; whether that being is omniscient, omnipotent, etc., we do not know. Second, we also do not know that the very powerful, supernatural, intelligent causal source of matter/energy (whether or not that being is omniscient, omnipotent, etc.) would see to it that everything in the universe is always as that being wishes it to be. For example, the traditional Christian view is that God has given human beings metaphysical libertarian freedom and they have made choices that are not in accordance with what God desires, yet God allows those choices to occur.¹⁵⁷ Third, if the very powerful, supernatural, intelligent causal source of matter/energy (whether or not that being

¹⁵⁵Flew, "Neo-Humean Arguments about the Miraculous," 55.

¹⁵⁶Flew, "Neo-Humean Arguments about the Miraculous," 57.

¹⁵⁷This is also known as the free will defence which is a reply to the objection that an all-good, all-knowing, and all-powerful God is logically incompatible with evil, but evil exists, so God does not. As mentioned previously, an assumption of this dissertation is that there is no logical incompatibility between the existence of God and the existence of evil and suffering. For more discussion of various defences and theodicies related to the problem of evil and suffering, see: William Alston, "Some (Temporarily) Final Thoughts on Evidential Arguments from Evil," in *The Evidential Problem of Evil*, edited by Daniel Howard-Snyder, The Indiana Series in the Philosophy of Religion, edited by Merold Westphal (Bloomington & Indianapolis: Indiana University Press, 1996), 311-332; Gregory Boyd, *Is God to Blame? Beyond Pat Answers to the Problem of Suffering* (Downers Grove, Illinois: InterVarsity Press, 2003); William Lane Craig, *Hard Questions, Real Answers* (Wheaton, Illinois: Crossway, 2003), chapters 4 & 5; Gregory E. Ganssle, "God and Evil," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 259-277; Michael Peterson, *God and Evil: An Introduction to the Issues* (Boulder, Colorado: Westview Press, 1998); Alvin Plantinga, *God, Freedom, and Evil* (Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 1977); John G. Stackhouse, Jr., *Can God Be Trusted? Faith and the Challenge of Evil* (New York & Oxford: Oxford University Press, 1998); Taliaferro, *Contemporary Philosophy of Religion*, chapter 9.

is omniscient, omnipotent, etc.) *does* see to it that everything in the universe is always as that being wishes it to be, this does not render miracles improbable, because the occasional strategic intervention may be a part of the being's overall plan! Aquinas very eloquently defends the idea that the occasional strategic intervention may be a part of the being's overall plan as follows: "[A]ll creatures are related to God as art products are to an artist, ... Consequently, the whole of nature is like an artifact of the divine artistic mind. But it is not contrary to the essential character of an artist if he should work in a different way on his product, even after he has given it its first form."¹⁵⁸ In other words, what is reasonable to believe about the God-like being's mind is this: Apart from a direct revelation (which we are assuming we do not have), we do not know this being's intentions regarding intervention. Thus, by making the non-empirically based judgment that interventions are improbable, Flew assumes that he *does* know the intentions of the supernatural being. Hence, Flew continues to beg the question.

It is appropriate here to mention briefly Bayes' Theorem, which is a formalized attempt to use the probability calculus to evaluate the strength of evidence for a hypothesis. In this regard, some work from John Earman is helpful.¹⁵⁹ Earman invites his readers "to think of H as a hypothesis at issue; K as the background knowledge; and E as the additional evidence."¹⁶⁰ Earman adds: " $\Pr(H/E\&K)$ is called the posterior probability of H . $\Pr(H/K)$ and $\Pr(E/H\&K)$ are respectively called the prior probability of H and the (posterior) likelihood of E ."¹⁶¹ In other words, $\Pr(H/E\&K)$ is the probability we are seeking, i.e., the probability of the miracle hypothesis given our evidence and background knowledge; $\Pr(H/K)$ is the probability of our hypothesis on its own, that is, its intrinsic probability, given our background knowledge; and $\Pr(E/H\&K)$ is a measure of the

¹⁵⁸Aquinas, *On the Truth of the Catholic Faith*, 3.100.6.

¹⁵⁹John Earman, "Bayes, Hume, and Miracles," *Faith and Philosophy* 10:3 (July 1993): 293-310; John Earman, *Hume's Abject Failure: The Argument Against Miracles* (Oxford & New York: Oxford University Press, 2000), 26-30. For a helpful introduction to Bayes' Theorem, see Adam Morton, *A Guide through the Theory of Knowledge*, 3rd edition (Oxford: Blackwell Publishers Ltd., 2003), 149-163.

¹⁶⁰Earman, "Bayes, Hume, and Miracles," 307.

¹⁶¹Earman, "Bayes, Hume, and Miracles," 307.

explanatory power of our hypothesis, that is, $\Pr(E/H\&K)$ measures our expectancy of the evidence, given that our hypothesis is the case and given our background knowledge. (The intrinsic probability of the *denial* of our hypothesis, given our background knowledge, is $\Pr[-H/K]$; and $\Pr[E/-H\&K]$ is a measure of the explanatory power of all *other* hypotheses, i.e., $\Pr[E/-H\&K]$ measures our expectancy of the evidence, given that our hypothesis is *not* the case and given our background knowledge.) Earman then presents Bayes' Theorem as follows:¹⁶²

$$\Pr(H/E\&K) = \frac{\Pr(H/K) \times \Pr(E/H\&K)}{\Pr(H/K) \times \Pr(E/H\&K) + \Pr(-H/K) \times \Pr(E/-H\&K)}$$

Significantly, because Bayes' Theorem requires background knowledge concerning the prior probability of the supernatural being's intervention, but we do not have this knowledge -- i.e., we do not know what the above-mentioned supernatural being's intentions are (as argued above) -- it seems very much that we cannot employ Bayes' Theorem to determine the probability of a miracle hypothesis. All the Bayes' Theorem really tells us is that *if we think* that the prior probability of the supernatural being's intervention and the explanatory power of the miracle hypothesis are low, and that the prior probability of the denial of the supernatural being's intervention and the explanatory power of the denial of the miracle hypothesis have a high probability, then we need strong testimony to convince us of the miracle hypothesis; and *if we think* that the prior probability of the supernatural being's intervention and the explanatory power of the miracle hypothesis have a high probability, and that the prior probability of the denial of the supernatural being's intervention and the explanatory power of the denial of the miracle hypothesis have a low probability, then we do not need strong testimony to convince us of the miracle hypothesis. In other words, as Johnson points out, "If one is *already* persuaded that it is virtually certain that a particular kind of event never takes place, then one is properly persuaded by testimony which one *later* comes across which asserts the occurrence of an event of that kind

¹⁶²Earman, "Bayes, Hume, and Miracles," 307. See too Earman, *Hume's Abject Failure*, 27.

(perhaps in the remote past) only if one is then persuaded that it is *even more certain* that such testimony is not false."¹⁶³ The issue still is, however, whether or not one *should* already be persuaded that it is virtually certain that a particular kind of event never takes place. Bayes' Theorem does not help us in this regard.¹⁶⁴

(b) Troeltsch/Flew objection confuses crucial concepts

Getting back to the original Troeltsch/Flew objection that is being countenanced in this section, i.e., the objection that via analogy coupled with our assumptions about nature's uniformity we apply what we know about the present onto evidence having to do with the past in such a way that miracles are ruled out, the second main reason the Troeltsch/Flew objection does not succeed is that the application of the principle of analogy involves a failure to properly apply two crucial concepts: analogy-as-method and analogy-as-content.¹⁶⁵ As

¹⁶³Johnson, *Hume, Holism, and Miracles*, 56.

¹⁶⁴For an important complaint about Earman's and others' attempts to employ Bayesian analyses of Hume's argument, see Michael Levine, "Bayesian Analyses of Hume's Argument Concerning Miracles," *Philosophy & Theology* 10:1 (1998): 101-106. Levine actually has two complaints: (1) that the lack of consensus on Hume's argument is a serious problem for Bayesian analyses, and (2) that Bayesian analyses are otiose because independent philosophical arguments are first needed to establish "what goes into the balance," i.e., the values of the relevant probabilities for the Bayesian probability calculus. It should be pointed out that Levine seems to complain too strongly about the lack of consensus on Hume's argument. There is no problem, it seems, with simply using a particular interpretation of Hume's argument, as long as one acknowledges this. On the other hand, it should be pointed out that Levine's second complaint has merit. Bayesian analyses first require independent philosophical arguments regarding the probability of the miracle hypothesis given our background knowledge. However, to be *relevant* background knowledge, this background knowledge should include knowledge of the intentions of the supernatural being. But, as was argued above (in the main text), we do not have this knowledge. So Bayes' Theorem does not seem to offer any help.

For further discussion of Bayes' Theorem(s) vis-à-vis miracles in general, see William Lane Craig's contributions to *Five Views on Apologetics*, edited by Steven B. Cowan, Counterpoints Series, series edited by Stanley N. Gundry (Grand Rapids, Michigan: Zondervan, 2000), especially pages 125-128 & 324-327. See too Johnson, *Hume, Holism, and Miracles*, pp. 56ff.

¹⁶⁵This criticism of Troeltsch's misuse of the principle of analogy originates with Wolfhart Pannenberg. See: Wolfhart Pannenberg, *Jesus – God and Man*, translated by L. L. Wilkins & D. A. Priebe (London: SCM, 1968); and Wolfhart Pannenberg, "Redemptive Event and History," in Wolfhart Pannenberg, *Basic Question in Theology I*, translated by G. H. Kehm (London, 1970). For a helpful overview of Pannenberg's criticism of Troeltsch's principle of analogy, see J. Houston, *Reported Miracles: A Critique of Hume* (Cambridge: Cambridge University Press, 1994), 212ff. See too: Beckwith, "History & Miracles," 97.

Beckwith points out, the principle of analogy that Troeltsch and Flew use "confuses analogy as a *basis* for studying the past with the *object* of the past that is studied."¹⁶⁶ In other words, Troeltsch and Flew mistakenly use the principle of analogy as a principle of content concerning what is to be known (i.e., the object of knowledge) rather than as a principle of method which works as a tool (i.e., the basis) by which we discern what is to be known. In the case of testimonial evidence, then, to come to a knowledge of the past what we need is a positive analogy between past testimony and present known to be true testimony (i.e., their structures); we do not need an analogy between the things testified to (i.e., their contents). It is not the lack of present day analogy to the object of a testimony that counts against testimony; what counts against a testimony is its positive analogy to present day testimony to which no testified-to object conforms, that is, what counts against a testimony is its positive analogy to known to be false testimonies such as those of people who are known to exaggerate or lie. To think that there must always be an analogy between the things testified to is to assume that there is no possibility of an intervention by a supernatural cause, which is to beg the question -- again (or still).

It seems that one might still object in a Humean fashion that if we are given human testimony of some facts which suggest the operation of a miraculous power, it still might well be better to doubt the veridicality of the testimony than radically alter our knowledge of the world -- after all, human cognitive and psychological regularities are less entrenched in science than are the laws of nature and so the failure of these cognitive and psychological regularities is more reasonable to accept than not (i.e., in the case of Jesus' alleged resurrection, some non-resurrection hypothesis should be accepted). In reply, it should be noted that the alleged alteration of our knowledge of the world is *not* so "radical" if the argument of this dissertation succeeds. As was seen in the case of Jesus' alleged resurrection, the miracle hypothesis handles the foreground data better than the contending non-miracle hypotheses. As was seen too, it is reasonable to think that the

¹⁶⁶Beckwith, "History & Miracles," 97. Cf. Francis J. Beckwith, "Theism, Miracles, and the Modern Mind," in *The Rationality of Theism*, edited by Paul Copan & Paul K. Moser (London & New York: Routledge, 2003), 228-229.

implications/predictions for the world of the miracle concept employed in the miracle hypothesis are satisfied/confirmed. The alteration of our knowledge of the world, then, is not really radical at all, if at all; there is, rather, a comfortable fit. To be sure, the laws of nature are, *ceteris paribus*, entrenched in science. However, as was argued previously, to hold that the laws of nature count against historical/testimonial evidence of a miraculous intervention is to assume either (1) that one knows that there is no God or God-like being or (2) that, if there is such a being, one knows that this being intends not to intervene. But the first assumption has been seriously weakened by the work of this dissertation, and the second assumption incurs question-begging, as has also been shown in this dissertation. Whether the human cognitive and psychological regularities hold in a particular testimony, then, depends on the merits of the cognitive and psychological merits of that particular case; not on the miraculous nature of the object of the testimony.

So, Troeltsch, Flew, and fellow miracle skeptics beg the question concerning the supernatural being's intentions in such a way as to rule out miracles. One might now ask (object): Are *we* now begging the question, *in the other way*? Are we now assuming to know the supernatural being's intentions in such a way as to *rule in* miracles? Answer: Twice no. The position in this dissertation has been (and is) that apart from a direct revelation we cannot know one way or the other the intentions of a supernatural being with respect to occasional or rare interventions, so we cannot prejudge miracles to be maximally improbable or maximally probable; rather, because we can only get information about a supernatural being's intentions to intervene in nature (apart from direct revelation) from a miraculous event, we need to *go and look* at any apparently relevant evidence -- and do so without ruling out miracles at the start, *and* without neglecting the plausibility structure developed in this chapter, a plausibility structure which is based on reasonable inferences from contemporary science and moral philosophy, a plausibility structure which serves to enhance the plausibility of a miracle's occurrence.

V. Summary Review & Upshot

So, where are we now? Let us review our findings. Keeping in mind the notion of reasonable belief in operation in this dissertation (see footnote at end of this sentence for a review), it is reasonable to believe that the universe is a miracle writ large.¹⁶⁷ Also, it is reasonable to believe that the hypothesis -- that the causal power which produced the universe also produced the resurrection -- can be put into the pool of antecedently plausible hypotheses. In addition, it is reasonable to believe that historical testimony/evidence can provide grounds for believing in the occurrence of past events that are not analogous to everyday events, events that are suggestive of the miraculous. The upshot is that it is reasonable to think that if there is good historical testimony/ evidence for what seems to be a particular small scale miracle (e.g., our test case concerning the historical facts surrounding Jesus' alleged resurrection), then a miracle hypothesis can be legitimately used as a plausible contender to account for that evidence, i.e., a miracle hypothesis can have subsequent plausibility too.

¹⁶⁷As noted in the introduction to this dissertation, in this dissertation the goal has been to achieve *reasonable* or *rationaly-warranted belief*, which is understood as "a belief acquired by sensible and clear thinking, which considers possible objections and counter-evidence" (Adam Morton, *A Guide through the Theory of Knowledge*, 3rd edition [Oxford: Blackwell Publishers, Ltd., 2003], 182). Although this dissertation has attempted to set out a preponderance of reasons in favour of this dissertation's thesis and sub-theses over reasons against them, it has done so without any attempt to judge that the thesis and sub-theses are rationally obligatory for all to hold; rather, this dissertation's understanding of *reasonable* or *rationaly-warranted* belief has been, modestly, belief that is not irrational to hold. In other words, i.e., Robert O'Connor's words (slightly altered for my purpose; O'Connor is talking about new design arguments based on contemporary science), the sort of judgment that has been sought for this dissertation's thesis and sub-theses is such that "inferring [the thesis and sub-theses] . . . constitute[s] an intelligent choice, that is, a rationally warranted, philosophically viable interpretation of certain remarkable empirical [and moral] phenomena" (Robert O'Connor, "The Design Inference: Old Wine in New Wineskins," in *God and Design: The Teleological Argument and Modern Science*, edited by Neil A. Manson [London & New York: Routledge, 2003], 83). To put the matter another way, the sort of knowledge this dissertation has sought is not 100% certain knowledge of propositions that are universal and eternal truths; rather, this dissertation has sought knowledge of the novel and historically exceptional, knowledge that is considerably less than 100% certain and easily falls prey to (or may be strengthened by) changes in relevant data. For further discussion of this view vis-à-vis the relationship between reason and faith, see Michael Peterson, William Hasker, Bruce Reichenbach & David Basinger, *Reason & Religious Belief*, 3rd edition (Oxford & New York: Oxford University Press, 2003), chapter 3, especially pages 49-53. Peterson *et al.* call the view that is held in this dissertation *critical rationalism*.

VI. Conclusion

The aim of this chapter has been to make a case for thinking that the plausibility of a miracle's occurrence is enhanced, given the work done in the previous four chapters, work which appealed to evidence from contemporary science and moral philosophy, work which also took into account some reasonable to hold assumptions.¹⁶⁸ To achieve the aim of this chapter, the following steps were taken. First, what it means to say that a hypothesis is plausible was briefly clarified. In this clarification the ideas of antecedent and subsequent plausibility were examined, which included an examination of the criteria of what makes a hypothesis a good explanation. Second, it was argued that some findings of the previous chapters -- i.e., the universe's coming into being, caused, and displaying marks of intelligence, and thus very apparently produced by a very powerful and seemingly intelligent matter/energy source which somehow exists beyond the universe -- seem very much to present us with an instantiation of a miracle on a grand scale, a miracle writ large. Third, it was argued that this implied/ predicted miracle writ large enhances the plausibility of a miracle hypothesis, when the latter is used to explain some particular facts that smack of the miraculous. Jesus' alleged resurrection was used as a test case (because it is for many people a foundation for their religious faith, it has some good publicly available evidence, and it smacks of the miraculous). Fourth, various objections were examined and found to be seriously problematic. In view of the above, it is reasonable to think that the aim of this chapter has been achieved.

In view of the above too, it is *also* reasonable to think that the aim of *this dissertation* has been achieved. The cumulative effect of the past five chapters has made it clear that, in view of what is reasonable to believe about the world at the beginning of the 21st century, scientifically and morally, and in view of the concept of miracle that Jesus' resurrection and virgin birth present to us, the "very nature" (Hume's words) of the testified-to object in a miracle testimony is such that, *contra* Hume *et al.*, it contains the seeds not for

¹⁶⁸For a list of these assumptions, see the last footnote of the dissertation's introduction.

weakening the testimony's credibility but for *strengthening* it. Therefore, this dissertation's thesis seems very much to stand: On the specification of a miracle concept that is comprehensive enough to capture such paradigm cases as Jesus' allegedly miraculous resurrection and virgin birth (and which does not include a violation of a law of nature clause in its definition), certain features of this concept's metaphysical and moral implications -- when examined in the context of some implied/ predicted findings from contemporary science plus some implied/ predicted discernments from moral philosophy -- serve to enhance the plausibility of a hypothesis which employs the miracle concept to describe the operation of a theoretical causal entity or power to make sense of some facts which suggest such an operation.

Hume's famous criticism of miracle reports, when articulated within a very different cosmological and epistemological framework -- a framework that is reasonable to hold today -- thus loses much of its cogency.

VII. Post Script on Philosophical Significance

Does this dissertation's thesis have significance for contemporary philosophy of religion? Does it point to new avenues of philosophical investigation in today's religious milieu? It seems that it does. This dissertation's thesis suggests the exciting possibility of gaining a further understanding of *other* alleged miracles -- in particular, alleged *contemporary* miracles -- an understanding that would in turn increase the value of our understanding of this dissertation's test case concerning Jesus' resurrection, which might in turn increase our understanding of Jesus' claims concerning himself and his "gospel" or good news. To defend the reasonableness of this suggested possibility, and to bring this dissertation to a close, the following will be done: (1) A review will be presented of the nine-point plausibility case previously set out in defence of the hypothesis that the causal power which produced the miracle of the universe also produced the miracle of the resurrection; (2) an attempt will be made to connect the aforementioned nine points to the other alleged miracles of the contemporary scene; (3) a sketch will be set out of the evidence for these other alleged miracles; plus, very briefly, (4) some issues that call out for further study will be raised.

It was argued earlier in this chapter that the criteria of explanatory plausibility present us with nine points which cumulatively count in favour of the plausibility of the hypothesis that the causal power which produced the miracle of the universe (MU) also produced the miracle of the resurrection (MR). These nine points will be recapitulated here, briefly.

According to point #1, there very apparently exists some sort of very powerful, physically transcendent, and intelligent cause who can produce the coming into being of extremely complex, specifically structured matter/energy. This is background belief/knowledge which arises from contemporary science and moral philosophy for the case of MU, as has been argued in the previous chapters and earlier in this chapter.

According to point #2, there exists a phenomenological/factual analogy between MU and MR with respect to origin. Although differing vastly in terms of size, in both cases there is a coming into being or introduction of matter/energy.

According to point #3, there also exists a structural analogy between MU and MR. In both cases the coming into being or introduction of matter/energy involves a fine-tuning, molecular machines, and DNA languages/codes, all of which display the characteristic marks of intelligence. MU involves a coming into being of matter/energy which is structured in such a way as to instantiate the various systems of highly complex molecular machines plus DNA which comprise intelligent human life. MR consists of a subset of MU in the sense that MR requires the instantiation of the various systems of highly complex molecular machines plus DNA specifically tailored to comprise the functional cells of the newly resurrected body.

According to point #4, there exists, because of the aforementioned analogies, an explanatory analogy between MU and MR as well. Even though we are not wholly clear on the nature of the cause at work, the cause nevertheless seems very much to be a powerful, nature-transcending, intelligent causal source of matter/energy.

According to point #5, the occurrence of MR seems to be a smaller, easier-to-do task for the causal power behind MU, and so the MU-type explanation in the case of MR is enhanced. The idea is that if X has

done a big job, then that counts in favour of X being able to do a small job.

According to point #6, the explanatory analogy can be easily read off the aforementioned analogies, and this reading is reinforced by, and makes sense of, the indication accompanying MR (namely, Jesus' claims that the same causal power which produced the universe has produced his resurrection).

According to point #7, the hypothesis that MR is an instance (albeit on a smaller scale) of the power behind MU not only fits well with the testimony/evidence presented by the witnesses, but it also fits better than each of the contending alternative non-MR hypotheses, thereby explaining under one hypothesis -- or *at least* offering an apparently promising singular explanation of -- two classes of facts: the scientific facts/evidence related to MU, and the historical facts/evidence related to MR, which is to say that the hypothesis that MR is an instance of the power behind MU promotes consilience.

According to point #8, closely related to point 7 is the fact that the hypothesis that MR is an instance of the power of MU is a *simple* way of handling the phenomena/facts. Appealing to the hypothesis that MR is an instance of the power of MU is simpler than positing, *ad hoc*, a different power for MU's occurrence or positing, *ad hoc*, various ill-fitting explanations for the evidence having to do with MR, evidence which points quite straightforwardly (on its own and as indicated verbally by the persons intimately connected to MR) to the same power that was responsible for MU's occurrence.

According to point #9, even though MU was discovered relatively recently, MR points to MU's occurrence. In other words, the hypothesis that MR is an instance of the power of MU in effect predicts (postdicts/retrodicts) MU. Hence, MR's prediction of MU's occurrence, i.e., MR's prediction of the universe as a miracle writ large, is an additional indication of consilience.

In view of the above nine points -- and in view of this dissertation's assumptions plus the work of the previous four chapters plus this chapter's replies to various objections -- it very much seems that the hypothesis, that the causal power which produced MU also produced MR, can reasonably be put into the pool of plausible hypotheses.

Significantly, if there *are* contemporary miracles in which complex specifically structured matter/energy comes into being, *and if the reports of their occurrence are credible*, then the nine-point case for the plausibility of the hypothesis -- that the causal power which produced MU also produced MR -- is enhanced even further. The contemporary cases would add plausibility because they would also imply/predict the background knowledge that there very apparently exists some sort of very powerful, physically transcendent, and intelligent cause who can produce the coming into being of extremely complex, specifically structured matter/energy (point #1). The contemporary cases would add plausibility because they would also be phenomenologically/factually analogous in the sense of their origin (point #2). The contemporary cases would add plausibility because there would also exist a structural analogy between them and MU and MR in the sense that in all cases there is a coming into being of specifically structured matter/energy which suggests intelligent design (point #3). The contemporary cases would add plausibility because there would also exist, because of the aforementioned analogies, an explanatory analogy between them, on the one hand, and, on the other hand, MU and MR: i.e., the cause seems very much to be a powerful, nature-transcending, intelligent causal source of matter/energy (point #4). The contemporary cases would add plausibility because the occurrence of these cases also seem to be smaller, easier-to-do tasks for the causal power behind MU, and so the MU-type explanation is helpful in other cases as well: i.e., explanatory scope is increased (point #5). The contemporary cases would add plausibility too because the explanatory analogy, even though having to do with a mysterious causal power, can also be easily read off the aforementioned analogies, and this reading is reinforced by, and makes sense of, *not only* the indication accompanying MR (namely, Jesus' claims that the same causal power which produced the universe has produced his resurrection) *but also* the indications accompanying the other cases (namely, the claim of many miracle workers that the same causal power which produced the universe and Jesus' resurrection has produced the miracle at hand; it is often proclaimed by Christian miracle workers that the miracle is done "in Jesus' name"): hence, there is even more explanatory scope (point #6). The contemporary cases would add plausibility because the hypothesis that the other cases

plus MR are an instance (albeit on a smaller scale) of the power behind MU explains under one hypothesis -- or at least offers an apparently promising singular explanation of -- not merely two but *three* classes of facts: (1) the scientific facts/evidence related to MU; (2) the historical facts/evidence related to MR; and (3) the historical facts/evidence related to the contemporary cases. In other words, the hypothesis that MR and the other cases are instances of the power behind MU promotes *consilience* even further (point #7). The contemporary cases would add plausibility because of the fact that the hypothesis that the other cases plus MR are instances of the power of MU is also a *simple* way of handling the phenomena/facts: appealing to the hypothesis that the other cases and MR are instances of the power of MU is simpler than positing, *ad hoc*, a different power for MU's occurrence or positing, *ad hoc*, various ill-fitting explanations for the evidence having to do with MR and the other cases, evidence which points quite straightforwardly (on its own and as indicated verbally by the persons intimately connected to MR and the other cases) to the same power that was responsible for MU's occurrence (point #8). The contemporary cases would add plausibility because the other cases also point to MU's occurrence: i.e., the hypothesis that the other cases are instances of the power behind MR which is an instance of the power of MU in effect predicts (postdicts/retrodicts) MU -- which is yet another indication of consilience (point #9). Therefore, if there are credible reports of contemporary miracles (sense 6), then such reports would add plausibility to the hypothesis that the causal power which produced MU also produced MR.

So, the crucial question now is: *Are there credible reports of contemporary miracles (sense 6)?* After having engaged in only a very preliminary investigation of this matter (which, for the sake of practicality, has focused primarily on this dissertation's author's own religio-cultural context), this dissertation's author concludes that the answer seems to be *Yes*. According to a recent poll by *Time* magazine, 69 percent of Americans believe in miracles, and "the fastest-growing churches in America are the Charismatic and Pentecostal congregations whose worship revolves around 'signs and wonders.'"¹⁶⁹ (This poll probably reflects

¹⁶⁹Nancy Gibbs & David Van Biema, "The message of miracles," *Time* 145:15 (10 April 1995): 64.

the Canadian situation, roughly.) Of course, these data do not by themselves show that credible reports of contemporary miracles exist, but they do suggest that the possibility is not wholly remote. In fact, in this dissertation's author's view, it is reasonable to think that this possibility becomes much less remote the more one investigates the miracle reports. For starters, there is growing scientifically- and medically-respectable evidence that prayer has a positive relation to physical healing (see references in next footnote).¹⁷⁰ Also, and significantly, in a careful examination of the well-known healing ministry of North America's Kathryn Kuhlman (d. 1976), Richard Casdorff, a Mayo Clinic medical doctor with a Ph.D. in medicine and physiology, makes a credible case for the occurrence of several of Kuhlman's miracles.¹⁷¹ Casdorff carefully presents solid medical evidence from before the alleged miracle's occurrence plus solid medical evidence from after the alleged miracle's occurrence, and he concludes that a miracle explanation best fits the facts.¹⁷² Also, the popular and ongoing healing ministry of North America's Benny Hinn presents us with some fairly impressive medical evidence of the occurrence of present-day miracles.¹⁷³ Also, the healing ministry of the Irish nun Brieghe McKenna presents us with evidence of the occurrence of present-day miracles.¹⁷⁴ Also, the healing ministry of Kenya's Hindu-born Christian evangelist Mahesh Chavda provides evidence of the

¹⁷⁰See: Harold G. Koenig, Michael E. McCullough & David B. Larson, *Handbook of Religion and Health* (Oxford & New York: Oxford University Press, 2001); Harold G. Koenig, *The Healing Power of Faith: Science Explores Medicine's Last Great Frontier* (New York: Simon & Schuster, 1999); Jeff Levin, *God, Faith, and Health: Exploring the Spirituality-Healing Connection* (New York: John Wiley & Sons, Inc., 2001); Charles Marwick, "Should Physicians Prescribe Prayer for Health? Spiritual Aspects of Well-Being Considered," *Journal of the American Medical Association* 273:20 (24 May 1995): 1561-1562. For critical discussion, see: R. P. Sloan, E. Bagiella & T. Powell, "Religion, Spirituality, and Medicine," *The Lancet* 353 (20 February 1999): 664-667. For criticisms of the aforementioned article by Sloan *et al.*, see Jim B. Tucker, T. A. Roper, Bruce S. Rabin & Harold G. Koenig, "Religion and Medicine," *The Lancet* 353 (22 May 1999): 1803-1804.

¹⁷¹H. Richard Casdorff, *The Miracles: Miraculous healings documented – some related to the ministry of Kathryn Kuhlman* (Plainfield, New Jersey: Logos International, 1976).

¹⁷²For a helpful biography of Kuhlman's life, which includes further reports concerning her miracle ministry, see Jamie Buckingham, *Daughter of Destiny: Kathryn Kuhlman ... her story* (Plainfield, New Jersey: Logos International, 1976).

¹⁷³See Benny Hinn, *This Is Your Day for a Miracle* (Lake Mary, Florida: Creation House, 1996).

¹⁷⁴Brieghe McKenna & Henry Libersat, *Miracles Do Happen* (New York: St. Martin's Press, 1987).

occurrence of present-day miracles.¹⁷⁵ Also, the healing ministry of Rienhard Bonnke, the German-born Christian evangelist who operates primarily in Africa, provides evidence of the occurrence of present-day miracles.¹⁷⁶ In addition, investigation by University of Manitoba psychiatrist John White provides evidence of the occurrence of present-day miracles.¹⁷⁷ Moreover, on a personal and anecdotal level, this dissertation's author knows a very sober-minded University of Waterloo scientist and professor who testifies that he has been the recipient of a miracle plus has witnessed two other miracles.¹⁷⁸ Furthermore, this dissertation's author has interviewed a well-respected pastor of a large Kitchener-Waterloo church who claims to have witnessed the occurrence of several miracles and claims to be acquainted with credible witnesses of other miracles.¹⁷⁹ Interestingly, in virtually all of the above cases, the miracles are done (prayed for) by Christians and they are done "in Jesus' name," i.e., the claim is made that the causal power which produced MU and produced MR *also produced* the miracle at hand. *Prima facie*, this suggests that the plausibility of the hypothesis that the causal power which produced MU also produced MR is enhanced even further, *and* that the plausibility of the hypothesis that the causal power which produced MU and MR *also produced the contemporary miracles* is enhanced too. In the view of this dissertation's author, these suggested theses are

¹⁷⁵Mahesh Chavda & John Blattner, *Only Love Can Make a Miracle: The Mahesh Chavda Story* (Ann Arbor, Michigan: Servant Publications, 1990).

¹⁷⁶See Sean Fowlds, "Glorious News in the Ikirun Crusade," 12 January 2004 (<http://www.cfan.org/>). See too Corrie Curtrer, "Looking for a Miracle: Six Million Nigerians join Bonnke revival," *ChristianityToday.Com*, 13 November 2000 (<http://www.christianitytoday.com/ct/2000/146/23.0.html>), plus see the comments of Rod Thompson, a medical doctor who was at Bonnke's aforementioned meetings in Nigeria to verify the alleged miraculous healings: Rod Thompson, Letter to the Editor, *ChristianityToday.Com*, 25 December 2000 (<http://www.christianitytoday.com/ct/2000/152/56.0.html>).

¹⁷⁷John White, *When the Spirit Comes with Power: Signs & Wonders among God's People* (Downers Grove, Illinois: InterVarsity Press, 1988).

¹⁷⁸Although this professor granted me a one-hour interview to discuss his experience of alleged miracles, this professor was not willing to allow me to use his name in this dissertation; not because he was unwilling to testify, but because he wishes to testify to people to whom he personally chooses to testify on an individual basis, face to face.

¹⁷⁹The pastor's name is Mark Bolender, of Country Hills Evangelical Missionary Church, Kitchener, Ontario, Canada; Bolender is a former president of his denomination (Evangelical Missionary Church of Canada).

philosophically significant -- i.e., significant epistemologically, metaphysically, as well as existentially -- and therefore are deserving of further investigation.

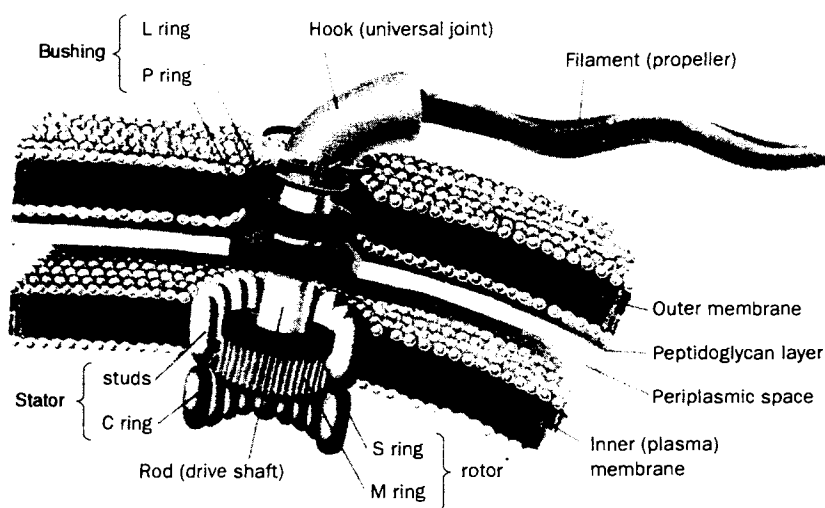
What might the shape of this further investigation take? It seems that further investigation should involve at least the following (where the word "miracle" and its cognates are understood in terms of miracle sense 6): (1) determining whether the physical aspects of the present-day, allegedly miraculous events actually occurred; (2) determining whether the miracle hypothesis best handles the events' foreground data plus the background data; (3) exploring how contemporary miracles relate conceptually to MR and MU plus broader worldview considerations to make better sense of their being done "in Jesus' name"; (4) exploring how contemporary miracles relate conceptually to MR and MU plus broader worldview considerations if they are *not* done "in Jesus' name"; (5) exploring how, along with MR, contemporary miracles might function as "signs" for reasonably believing that Jesus is God incarnate born of the virgin Mary; plus, what is closely related to the last point, (6) exploring how, along with MR, contemporary miracles might function as "signs" for reasonably believing -- taking on faith -- the truth of the gospel, or good news, which Jesus and his followers proclaimed, and which many contemporary miracle workers proclaim too. In other words, the shape of the further investigation that the pages of this dissertation prompt involves a fresh philosophical look at the possibility of contemporary miracles serving as a publicly-accessible epistemological bridge, or trestles thereof, between the natural world and revealed theology, a bridge across whose planks travel what seem to be rumours of another world.¹⁸⁰

¹⁸⁰The main rumour of the allegedly revealed theology that Jesus presents to us is, as was pointed out in the introduction to this dissertation, the "gospel"/ good news. For more on this topic, see pages 3 and 4 of the introduction. For a look at some additional contemporary miracle claims that call out for further investigation, see: Kenneth L. Woodward, "Contemporary Signs & Wonders," in *The Book of Miracles* (New York: Touchstone/ Simon & Schuster, 2000), 365-382. For an introductory yet very helpful philosophical investigation of miracles as theological signs, see: William A. Dembski, "Recognizing the Divine Finger," in *Intelligent Design: The Bridge Between Science & Theology* (Downers Grove, Illinois: InterVarsity Press, 1999), 25-48.

APPENDIX

A visual argument for intelligent causal agency

Below is a visual version of Michael J. Behe's verbal description of the bacterial flagellum, an image which has become, so to speak, the poster machine of intelligent design proponents.¹ Clearly, the resemblance of some of nature's systems to human-made machines is close.



THE BIOCHEMICAL COMPLEXITY OF A BACTERIAL FLAGELLUM

¹Behe's verbal description of the bacterial flagellum is found on page 276 in chapter 4 of this dissertation. The above image of the bacterial flagellum is from Michael J. Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution* (New York: The Free Press, 1996), ii. For a visual look at how the components of the flagellum arise, and for a microbiologist's discussion of recent scientific challenges to the flagellum's irreducible complexity, see Scott Minnich, "Paradigm of Design: The Bacterial Flagellum" (produced by Access Research Network at the University of California, Santa Barbara, 1 hour 23 minutes, 2003, DVD).

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