

INVESTIGATING THE FREQUENCY OF SPONTANEOUSLY  
GENERATED SOCIAL AND TEMPORAL BETWEEN-INDIVIDUAL  
COMPARISONS

by

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## **AUTHOR'S DECLARATION**

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.

I understand that my thesis may be made electronically available to the public.

## **Abstract**

Social and temporal comparison researchers to date have only looked at comparisons involving the self. The present investigation aims to extend comparison theory by examining social and temporal comparisons people make of others. Using movie reviews, the results support Festinger's (1954) similarity hypothesis, such that lateral comparisons were more frequent than either upward or downward comparisons when the comparisons were social in nature. For temporal comparisons, on the other hand, there was no difference in the use of upward, downward, and lateral comparisons, which does not support Albert's (1977) hypothesis that people are motivated to maintain a stable sense of self over time and should therefore prefer lateral comparisons over upward or downward comparisons. Implications about the use of between-individual comparisons as a way to expand comparison theory and the benefits of examining these types of comparisons for their own sake are discussed.

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## Introduction

Barbara and Steven are two parents who had this to say about their son Joshua, who was suffering from high-grade non-Hodgkin's lymphoma, non-Burkitt's type, a very aggressive and potentially lethal illness:

One of his severe complications was damage to his nerves, neuropathy, caused by chemotherapy. But despite that, and to his credit, he learned to adapt. Now, fortunately, he is physically absolutely normal, although we've screened him for heart disease because he had a drug called Doxorubicin that can cause heart damage.

For him, I think the more difficult things were his psychological issues. I think he felt he lost a childhood, and a lot of friends. There is no doubt that he suffered cognitive changes. His self-esteem diminished, his ability to concentrate decreased, his ability to perform in school was not as good as it used to be. He thought less of himself because of those issues, despite us telling him what a great warrior he was dealing with his therapy.

And this is what one parent said about a boy who is diagnosed with cystic fibrosis:

My son was two months old when I found out he had CF [...] He is a rambunctious nine year old boy now. [...] He is such a strong little boy as all CF children are. I think they grow a thick skin so they can deal with everything. [...] He has an older sister and a younger brother without CF and loves to fight with them constantly! He knows they don't

have CF and he does, they are learning about it as well. [...] I look at my JJ and think he couldn't be any more perfect than he is right now.

One thing these two accounts have in common is that they involve somebody making a comparison – not of themselves to someone else, but of another person to someone else, which is the focus of this investigation.

Social and temporal comparisons are usually thought of as comparisons that involve the self in some way. When Festinger (1954) outlined his original theory of social comparisons, he focused entirely on comparisons of the self with others, and that definition of social comparison has been largely retained up until today. Mettee and Smith (1977), for example, described social comparison theory as “a theory about the quest to know ourselves, about the search for self-relevant information and how persons gain self-knowledge and discover reality about themselves in the absence of objective-reality referents” (pp. 69 – 70). More recently, Wood (1996) defined social comparison as “the process of thinking about information about one or more people in relation to the self” (pp. 520 – 521). Similarly, Albert’s (1977) theory of temporal comparison focuses solely on how people compare their own selves at different points in time. Does this mean that people do not make comparisons between others, or that one does not consider changes in another over time? Some social comparison researchers, in an attempt to come up with a definition of social comparison that would fit into a more general framework of human judgment processes (e.g., Kruglanski & Mayseless, 1990; Mussweiler, 2003), have at least implied that comparisons between others exist. However, research on this topic is still relatively scarce, and the few studies that mention comparisons among others have not done so in the

context of classical social comparison theory. There seems to be even less, if any discussion on temporal comparisons people make of others in the research literature.

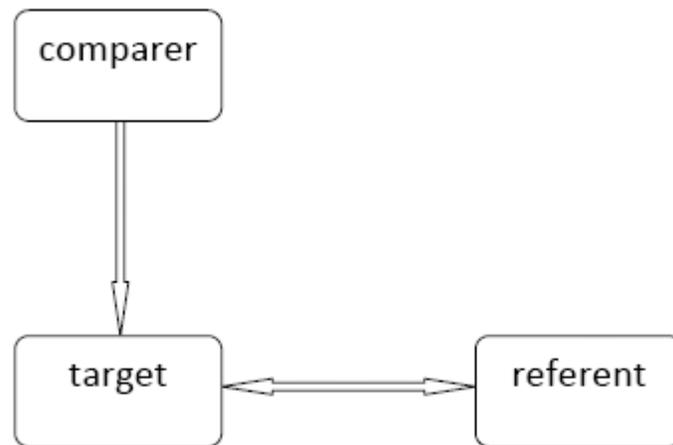
Yet from a theoretical perspective, people should not only be capable of making social and temporal comparisons of others, but may even have a natural tendency to do so. Many theories of human judgment start out with the basic assumption that people have an inherent drive not only to evaluate themselves but any social and even non-social stimuli (e.g., Cacioppo & Petty, 1982; Kruglanski, 1990; Jarvis & Petty, 1996), and that they use comparative judgments in order to make those evaluations (e.g., Kruglanski & Mayseless, 1990; Mussweiler, 2003). In fact, making comparative judgments seems to be such so basic and natural that even subliminally presented stimuli are inadvertently compared to a salient standard (Dehaene, Naccache, Clec'H, Koechlin, Mueller, Dehaene-Lambertz, van de Moortele, & Le Bihan, 1998). Mussweiler, Rüter, and Epstude (2006) provided a sound explanation for the ubiquity of comparative judgments that falls in line with the idea of people as “cognitive misers” (Taylor, 1981): comparative judgments are highly cognitively efficient.

Researchers do not seem to deny the existence of between-individual comparisons. Studies on social perception and human judgment cover comparison processes that – at least implicitly – take into account between-individual social comparisons (e.g., Higgins & Lurie, 1983; Herr, 1986; Stapel, Koomen, & Zeelenberg, 1998; Wong & Kwong, 2005). In two studies conducted by Wilson and Ross (2001), temporal comparisons of another individual than the self were used as a comparison in order to examine temporal self-comparisons. In one study, participants were asked at the end of the term to either rate themselves or an acquaintance on a number of traits both now and about three months earlier (the beginning of the term). In the other

study, pairs of siblings rated how they are now and how they used to be. They also rated their siblings on the same attributes in the past and in the present. Anecdotal evidence also suggests that people make numerous between-individual comparisons in their everyday lives. Imagine, for example, the teacher who gives out grades to her students at the end of the school year. Does Jimmy really deserve a B, considering that Jack also got a B and participated much more during class discussions? Or think of a man expressing his concern for his aging father's deteriorating memory since the last family dinner. Thus, it seems that both social and temporal comparisons of others exist, but social and temporal comparison researchers have so far either deliberately or unintentionally ignored them. This will be purpose of my investigation. My first goal is to see if and how often between-individual comparisons occur in a natural setting. In addition to just assessing of the overall frequency of between-individuals in general, I would also like to examine which types of comparisons people engage in when comparing among others. In this regard I distinguish comparisons along two dimensions: (a) referent source for, and (b) the directionality of each comparison. In the following section I will explain each of them in more detail.

*Target, referent, comparer.* Some clarification about the terms I will be using throughout this thesis might be necessary before proceeding to the particulars of the study. In the comparison process, there are usually three parties involved: I will refer to the persons engaging in the comparison process as the *comparers*, those that are being evaluated the *target*, and those individuals that the target is being compared to I will refer to as the *referents*. Given this definition, then, self-comparisons are those in which comparers and targets are the same people, whereas in between-individual comparisons, comparers and targets are always different

individuals. On the same note, I can now define temporal comparisons as those in which targets and referents are the same individuals, whereas social comparisons are those in which targets and referents are different individuals<sup>1</sup> (see Figure 1).



*Figure 1:* Demonstration of the relationship between comparer, target, and referent.

*Referent source.* When people use comparisons to evaluate themselves, they can either look at how others are doing (social comparisons), or they can compare their present standing with how they used to be or might become in the future (temporal comparisons). No known research has directly assessed the frequency of social and temporal between-individual comparisons yet, and the literature on the occurrence of social and temporal self-comparisons has been mixed: whereas some researchers have found a general preference for social comparisons, others have found temporal comparisons to be just as frequent as and sometimes even more frequent than social comparisons (e.g., Suls & Mullen, 1982; Wilson & Ross, 2000; see

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<sup>1</sup> In my definition, I consider referents and targets to be both individuals and groups of people as well as real and imagined individuals (cf. Wood, 1996).

Redersdorff & Guimond, 2006, and Sanitioso, Conway, & Brunot, 2006). As these researchers argue, whether people prefer social or temporal comparisons in their self-evaluations may depend on various factors, such as situational circumstances, age, goals, or one's knowledge about one's own level of skill of on an ability one is evaluating.

In between-individual comparisons, one is most likely to have at least some knowledge about that person's personal history. Based on this assumption, I believe that people may generally depend more on social comparisons when the target is somebody other than the self.

*Directionality.* In addition to classifying comparisons into social or temporal, one can also distinguish them in terms of their directionality. If a comparison referent is inferior to the target on the quality in question, we speak of a downward comparison; if the referent is superior, an upward comparison has been made; and if the referent is at the same level as the target, that comparison is called a lateral comparison. According to Festinger's (1954) original social comparison theory, when people are trying to evaluate their opinions and abilities and lack sufficient objective standards to turn to, they will look for people who are similar to them on these qualities in order to acquire this information. The similarity hypothesis has since then been tested and refined (see Wood, 1989; Suls, Martin, & Wheeler 2002; Mussweiler, 2003), and even though the definition of who constitutes a similar other does not yield a simple answer, they all agree that some common ground is sought by individuals when making social comparisons.

Within the realm of temporal comparisons, whether people are most likely to compare their present self to selves at other points in time that are superior, inferior, or the same is even more complicated (see Sanitioso et al., 2006). Nevertheless, Albert (1977) argues that because

people have the need for an enduring sense of self, they tend to have an inherent drive to think of their past self as similar to the present. Based on this premise, one could assume that people will also tend to make lateral comparisons of others' present and their past or future selves. Support for this claim comes from the two studies by Wilson and Ross (2001) in which temporal other-comparisons constituted the control conditions: the participants in their study tended to see others as fairly stable over time, even more so than they themselves. Taken together, I will use Albert's (1977) argument that just as people are driven by maintaining a stable self, they will have an inherent drive for seeing others' attributes as being stable over time in order to be able to predict their reactions in a number of different situations.

Moreover, studies that have tried to determine how often people spontaneously generate social and temporal comparisons during their everyday activities have found a general tendency for lateral comparisons to be the most frequent, in particular social ones (e.g., Wilson & Ross, 2000; Ross, Xun, & Wilson, 2002; Ross, Heine, Wilson & Sugimori, 2005; Ferring & Hoffmann, 2007).

Based on these arguments, I predict that people will use comparisons as a means to evaluate others, and if they do, they will show a general preference for social comparisons with similar others when evaluating a particular individual.

In summary, the primary purpose of this research is to investigate social and temporal comparisons that do not involve the self. I first want to determine whether people naturally engage in social and temporal between-individual comparisons. Further, if people do indeed

make these types of comparisons, I hypothesize that people will make mostly comparisons that are social lateral in nature.

## Method

### Study overview

I tested my hypotheses by examining movie reviews. Movie reviews are useful in a number of ways. First, they allow me to determine how common between-individual comparisons are in a naturalistic, real-world domain. Because they tend to be written in a style that is fairly casual and non-restrictive, they are free of experimenter demands and restrictions that may be imposed on them in more traditional comparison studies (see Wood, 1996).

Movie reviews might also be useful in order to open up the possibility to make temporal comparisons for the comparer, because as mentioned earlier, I believe that in order to make meaningful temporal comparisons of others, one needs to know at least a little bit about the history of the person that is being evaluated. In the case of movie reviews, I assume that the critics know enough about the history of those they are evaluating and therefore at least have the opportunity to make any temporal comparisons of those people, because (a) the people critics are writing about are generally public figures whose history and personal lives are known well even to the general public, and (b) critics should be knowledgeable about these people as part of their job.

Finally, because movie reviews are often based on a rating system, they allow me to get a proxy for a critic's overall impression of the people that the critic is evaluating. In general, I assume that if critics have rated the *movie* favourably, they would also more likely rate the

*people (e.g., actors, directors, writers, etc.) involved in the movie* more favourably compared to people that have been involved in movies that the critics did not particularly like. Certainly, it is possible that a critic might not like a particular actor's performance very much but still might have enjoyed the movie overall. But I assume that in cases like these, the critics would still prefer to focus on the positive features of the movie (for example, the director's good work on it) or downplay that actor's bad aspects by highlighting his or her good aspects (by making favourable temporal comparisons, for example) in order to demonstrate to the public why they gave the movie a favourable rating overall.

I also wanted to see if one's preference for particular types of comparisons might depend on whether one has a good or bad impression about a particular individual. If the overall impression has been positive, one might expect to find more downward than upward comparisons; negative impressions of the target, on the other hand, should lead to greater use of upward comparisons. Using comparisons this way could be used in order to confirm one's appraisal of a particular person, since using upward comparisons implies that "there are better ones out there", whereas comparing downward highlights the fact that others are worse. Ceiling effects could also in part affect the use of upward and downward comparisons, because if the performance was really bad, there simply is no one worse to compare to. It is beyond my scope to address this issue. Regardless of the actual reasons, for now I am simply interested to see whether the pattern I find here is similar to that found in previous research regarding self-comparisons.

### *Subjects or Participants*

The participants in this study were movie critics from a random selection of renowned American and Canadian newspapers (e.g., “The Chicago Tribune”, “The Globe and Mail”). For our selection criteria, I only chose critics who were members of a distinguished film critics’ society or association who should at least have published 100 reviews during his or her career and who were still publishing at the time data were collected.

Two main resources were used in order to get my sample: the website “Reviewmaster” (<http://www.video-reviewmaster.com/critics.asp>) was used to generate a list of movie critics who would fit the above mentioned criteria and who all used the same rating system to rate their movies, which in this case was the 4-star rating system. I wanted to use the same rating system for all movie reviews for ease of comparison purposes, but any other rating system would have been equally possible. I then used the website “Rotten Tomatoes” (<http://www.rottentomatoes.com>) in order to select the reviews. 54 critics were mentioned on both websites that fit my selection criteria. Of those 54 critics, I picked the 20 critics who had published the most reviews on the Rotten Tomatoes website. Three of these critics were women, the rest were men. Two of the critics wrote for a Canadian newspaper, and the rest had published their reviews in various American newspapers. For each critic, I randomly selected five good (with ratings of 2.5 stars or higher) and five badly rated movie reviews (with ratings of 2 or lower), yielding a total of 200 reviews.

## *Coding*

Comparisons were coded along two dimensions: type of referent (social or temporal) and directionality (upward, downward, lateral, or direction undetermined). Within the directionality dimension, I included direction undetermined because in some cases, target and referent were seen as dissimilar, yet neither seemed superior, inferior, or equal to the other. I thus labeled comparisons of this kind as comparisons in which the direction is undetermined to see how often they might be in this sample.

One coder rated the reviews of the entire sample (i.e., the reviews of all 20 movie critics). A second coder then rated the reviews of nine movie critics, which were selected at random for reliability purposes. Interrater agreement scores were first obtained by calculating the correlation on the number of comparisons found by the two coders. These were moderate for temporal comparisons ( $r = .59$ ;  $p = .10$ ) and significant for social and the total number of comparisons (both  $r_s = .78$ ;  $p_s < .01$ ). The relatively low correlations were in part due to the fact that at times one rater would identify a comparison in a passage whereas the other did not and vice versa. For this reason, I also looked at all the comparisons that had been identified by both. This number was a lot smaller than the total number of comparisons found by each coder ( $N = 66$ ). Fifty-six of the 66 comparisons (86.92%) were labelled the same by both coders (i.e., whether the comparison was social or temporal and its directionality). The analyses are based on the coded data of the first rater only.

## Results

### *Movies*

Release years of the movies ranged from 1952 to 2004. The majority of the movies reviewed were released in 2003 ( $n = 95$ , or 47.5 %), followed by movies reviewed in 2002 ( $n = 60$ , or 30 %) and 2004 ( $n = 26$ , or 13 %). The mean rating (based on a 4-star rating system) a reviewer had assigned to the movies that had been selected for my investigation was 2.23 ( $s = .12$ ), ranging from the lowest possible score (0 stars) to the maximum (4 stars). The mean rating of the bad reviews was 1.13 ( $s = .22$ ), and the mean rating of the good reviews was 3.34 ( $s = .13$ ). A t-test comparing the means between the bad and the good reviews showed that this difference was significant ( $t(19) = 37.22, p < .01$ ).

### *Frequency of comparisons*

A first look at the frequency of comparisons reveals that on the whole, the reviewers in our sample used a total of 752 comparisons. On average, each review contained 3.76 ( $s = 3.30$ ) comparisons. The number of comparisons varied from 0 to 16 comparisons per review. Movie critics typically used about 37.60 ( $s = 16.71$ ) across all of their 10 reviews, ranging from 16 to 74 comparisons.

Given the relatively low frequency of present as well as future comparisons, I combined them with the number of past comparisons to create an overall category of temporal

comparisons<sup>2</sup>. In addition, since comparisons that are labelled as direction undetermined are not pertinent to our hypotheses other than to see whether people engage in *any* type of comparison, they were omitted from our remaining analyses. Thus, Table 1 shows the distribution of the different types of comparisons in the overall sample with the overall category of temporal comparisons and without the comparisons of undetermined directionality.

	Social			Temporal		
	<u>Lateral</u>	<u>Up</u>	<u>Down</u>	<u>Lateral</u>	<u>Up</u>	<u>Down</u>
Good	6.5 (4.50)	2.50 (1.87)	4.80 (3.04)	2.50 (2.04)	1.30 (1.96)	2.35 (1.87)
Bad	5.8 (4.54)	3.65 (2.54)	2.25 (2.24)	.95 (1.32)	1.85 (1.57)	.70 (.80)

*Table 1: Mean number (SD) of the different types of comparisons per reviewer.*

In addition to examining whether between-individual comparisons exist at all in the naturalistic setting, I have also outlined a number of predictions regarding the frequency of the different types of comparisons. My main hypothesis is that, in line with Festinger’s Theory of Social Comparison, reviewers should for the most part choose referents that are similar to a particular individual when making comparisons. I also expected the number of downward and upward comparisons to be related to the reviewer’s overall impression of the movie.

In order to test these hypotheses, I first conducted an overall Referent (social vs. temporal) x Rating (good vs. bad) x Directionality (lateral, upward, and downward) repeated-measures ANOVA, using reviewers as the unit of analysis. A significant main effect for

<sup>2</sup> Only 8 reviewers used any present comparisons, and those who did used only four comparisons at most across all of their ten reviews. Future comparisons were even less frequent – only two reviewers used any, and these two only used one future comparison each in total.

Referent,  $F(1, 19) = 31.17, p < .01$ , was qualified by a significant Referent x Directionality interaction,  $F(2, 38) = 10.28, p < .01$ . Pairwise comparisons revealed that reviewers were more likely to use lateral ( $M = 3.94, s = .49$ ), than either upward ( $M = 2.53, s = .26$ ) or downward ( $M = 2.33, s = .26$ ) comparisons. This difference, however, was only apparent among social between-individual comparisons ( $M = 6.15, s = .89$  for lateral;  $M = 3.08, s = .39$  for upward, and  $M = 3.53, s = .48$  for downward comparisons); if the comparisons were temporal in nature, lateral comparisons ( $M = 1.73, s = .27$ ), upward ( $M = 1.58, s = .22$ ), and downward ( $M = 1.53, s = .22$ ) occurred equally often (all  $ps > .50$ ; see Figure 2).

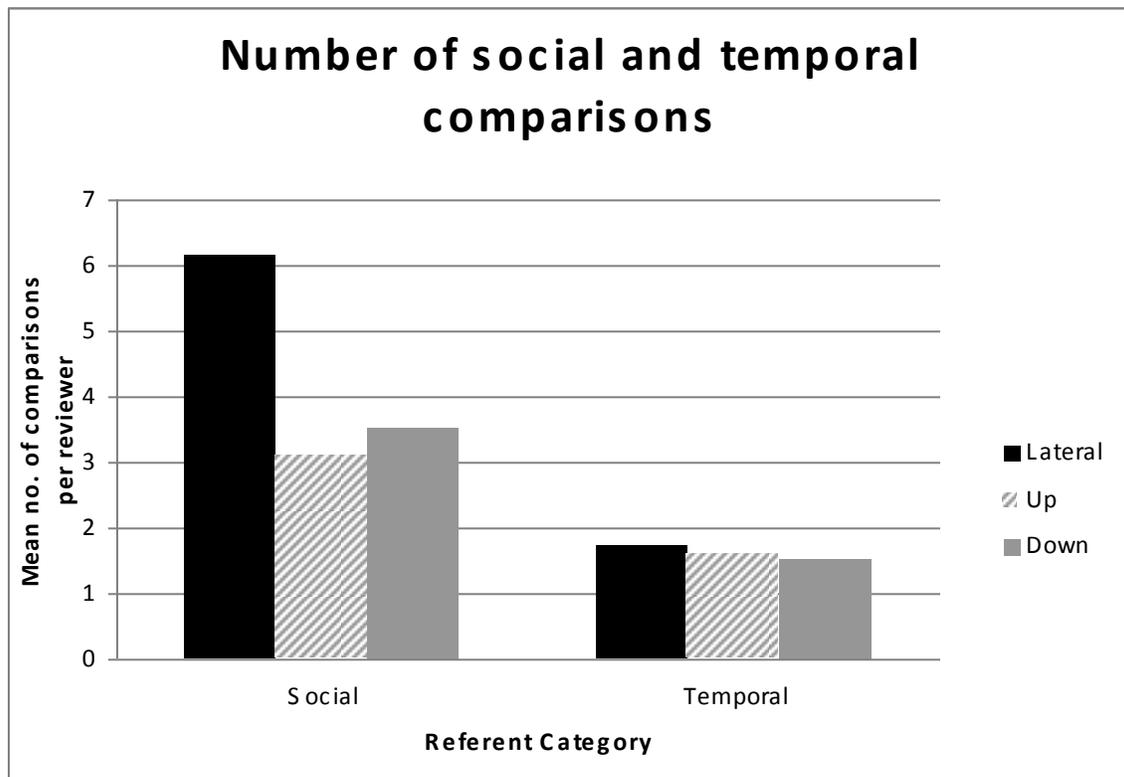


Figure 2: Mean number of lateral, upward, and downward social and temporal comparisons per reviewer

A significant main effect for Rating,  $F(1, 19) = 4.72, p < .05$ , was also qualified by a Rating x Directionality interaction,  $F(2, 38) = 15.00, p < .01$ . Pairwise comparisons revealed that lateral between-individual comparisons ( $M = 4.50, s = .51$ ) were significantly more frequent than upward comparisons ( $M = 1.90, s = .31, p < .01$ ), and marginally more frequent than downward comparisons ( $M = 3.58, s = .39, p < .06$ ), if the movie reviews were rated well. Among bad reviews, even though lateral comparisons were the most numerous here as well ( $M = 3.38, s = .56$ ), they were only significantly different from downward comparisons ( $M = 1.48, s = .29, p < .01$ ). Upward between-individual comparisons were used just as often as lateral ones ( $M = 2.75, s = .41, p < .13$ ), and they also more often than downward comparisons,  $p < .01$  (see Figure 3).

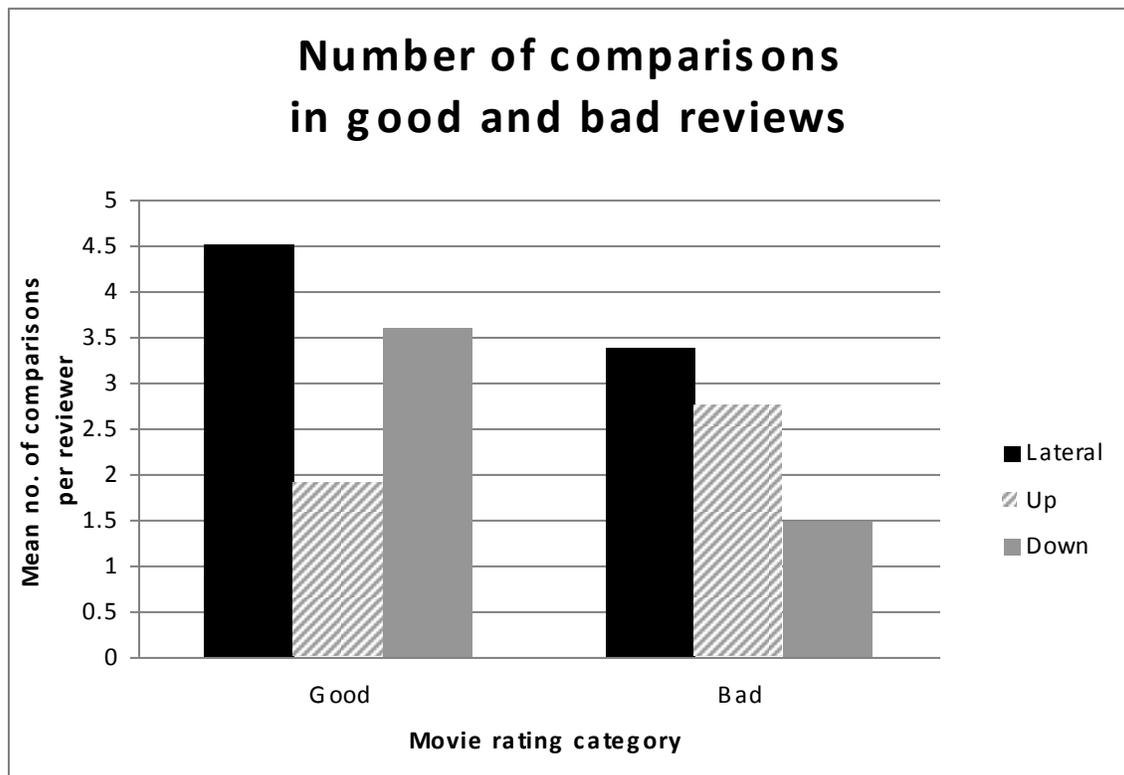


Figure 3: Mean number of lateral, upward, and downward comparisons per reviewer in good and bad movie reviews.

## Discussion

In their chapter on social comparison processes, Mussweiler, Rüter and Epstude (2006) pointed out that people “pretty much compare any target to a pertinent standard” (p. 33). The results of the present study suggest that this statement is not restricted to people’s selves or to non-social objects; it seems that people also have a natural tendency to compare people to other individuals. What is more, this investigation also allows us to take a preliminary look at how often not only social, but also temporal between-individual comparisons occur in a naturalistic setting.

In addition, the results of this study suggest that the frequency of the different types of comparisons is not random but rather follows some general patterns that can be predicted from comparison theory principles. For one thing, our investigation demonstrates that Festinger’s similarity hypothesis can be extended to between-individual comparisons: when people compare a specific target individual with others, they seem to search for referents who are similar to that individual in some way. The predominant occurrence of social lateral comparisons can also be explained from a motivational standpoint. According to this view, people driven by self-evaluative goals will show a tendency to compare with others who are similar to or even slightly better than themselves, whereas motives intended to bolster one’s self-regard are likely to instigate an increased use of downward (self-enhancement) or upward (self-improvement) comparisons. Temporal comparisons in particular have been found to serve satisfying the self-enhancement and self-improvement motives (see Wood, 1989; Taylor, Neter, & Wayment, 1995; Wilson & Ross, 2000). Since we expect movie critics to evaluate movies and therefore also the individuals involved in it, it would be safe to assume that they were driven by the motivation to

evaluate when making comparisons of others. Taken together, one could assert that social lateral comparisons are the most useful type of comparison when one seeks to evaluate others. These findings therefore parallel the findings reported by Ross et al. (2005) and Ferring and Hoffmann (2007), who also found social lateral self-comparisons – but not necessarily temporal lateral self-comparisons – to be the most frequently used type of comparison among their participants.

Even though this might not be terribly surprising, we also found that, similar to self-comparisons, downward comparisons were generally positive and upward comparisons were negative. Reviewers used more downward than upward comparisons to express their positive impressions of someone and more upward than downward comparisons to express negative impressions.

Social and temporal other-comparisons therefore seem to share some features with social and temporal self-comparisons. There will also most likely be some differences, however. For instance, comparisons of others are not very likely to share the same underlying functions as self-comparisons that are directed at bolstering one's self-regard (e.g., Wills, 1981; Wood, 1989; Taylor et al., 1995; Wilson & Ross, 2000, Ross & Wilson, 2003). One would assume that when evaluating another, there would be a smaller interest to protect or raise that other's image than to protect or raise one's self-image. But to say that the comparer would have no motivation at all in another's regard would not be reasonable to assume either. I would therefore not classify between-individual comparisons processes as purely cognitive ones that follow principles akin to the assessment of non-social objects. After all, people maintain relationships with others which generally influence a person's emotions to a greater degree than non-social objects do. One's interest in protecting or raising the other might well depend on how much the comparer cares for

the other person and includes the other into his or her own self-concept (e.g., Aron & Aron, 1986; Markus & Kitayama, 1991). Answering these questions, is, however, beyond the scope of this investigation and requires more research.

It is less clear why there were more comparisons in good than in bad reviews. It may be that because of societal rules, people are hesitant to make comparisons, especially unfavourable ones, when they do not have a very good overall impression of another person. Brickman and Bulmann (1977) talk about how in certain situations, people may actually be driven to avoid comparisons (see also Wood, 1989). The difference between wanting to avoid comparisons of the self with others and wanting to avoid comparisons between two individuals other than the self may be that the latter may not necessarily be directly “painful” for the comparer but rather something that is generally frowned upon (see also Buunk & Gibbons, 2007). Thus, when the movie was good and the reviewer had had the opportunity to make many compliments to those that were involved in it, he or she might make positive comparisons readily. However, when the movie was bad, the reviewer might just prefer using other means to demonstrate his or her opinion, such as focusing more on the movie overall rather than the particular people.

### *Limitations*

Although I have mentioned all the advantages of using naturalistic data for my purposes, I also need to point out some drawbacks of using such an approach. One disadvantage in using movie reviews that I have already discussed above is that the rating is directed at the movie rather than at any particular person. I have already argued that if anything, the results would have been skewed in a direction which would go against my hypothesis and should therefore not be of

great concern to the interpretation of my findings. Nevertheless, in order to understand between-individual comparisons more fully, it would be better to look at a comparer's description of one person only instead of one in which several people are evaluated simultaneously.

Secondly, because of a lack of a comparison group, many of the arguments regarding the role of motivations in between-individual comparisons are only tentative and post hoc interpretations of the data. To what extent motivational issues do play a role in between-individual comparisons is therefore subject to further empirical testing.

Finally, there is the question of generalizability. The majority of the movie critics in this study tended to be white, middle-aged men. In addition, the situation might have affected the use of comparisons. Movie critics by their very job description are paid to critically evaluate the movies they have seen, and their writing style is often more direct and criticizing than one would expect in many other social interactions. It is possible that these critics used a greater number of comparisons, and especially negative comparisons, than would otherwise occur in general, and the findings in this study might not be as naturalistic as I claim them to be. Brickman and Bullman (1977) have already pointed out that any comparison "involves rather substantial costs for the parties involved" (p.149), and that for this reason, people tend to want to avoid comparisons. In addition, Wilson and Ross (2000) found a considerable lower number of comparisons in their participants' self-descriptions if their instructions were less guided. The decision to use movie reviews was to some extent made in order to ensure a large enough data set in order to test all of the hypotheses.

### *Future directions*

Due to the lack of previous research on this topic, the research I have presented here is only exploratory and allows for extensions into a number of different venues. Social comparison theory alone has grown immensely since it first originated in the 1950s (see Buunk & Gibbons, 2007), and researchers have also built on Temporal Comparison theory (e.g., Suls & Mullen, 1982; Wilson & Ross, 2001). Many of their principles that have been established within the realm of self-comparisons could be tested in order to see to what extent they apply to other-comparisons as well. In fact, incorporating other-comparisons into classical social and temporal comparison theory, one might be able to refine and expand existing models. For example, Buunk and Gibbons (see Buunk & Gibbons, 2007) make a case for social comparison orientation as a personality trait and argue that people differ in their tendency to use and react to social comparison information. It would be interesting to see whether this orientation is only restricted to the self or whether it applies to the comparison of others as well, or whether they are two distinct dimensions of social comparison orientation that can interact and lead to different outcomes. Another direction that is worth examining further is, as mentioned earlier in this paper, the role of motivations or goals in the use of comparisons. It is possible that the relationship between the comparer and the target affects the extent to which comparisons are affected by “hot” motivations or goals as opposed to “cold” cognitive accessibility and heuristic principles. It is possible that the closer the relationship between the comparer and the target, the greater the role motives play in comparison use. This would also be an example that demonstrates how between-individual comparisons are also worth examining further for their own sake.

Understanding how people compare among others is important in a number of social settings. To name some examples, evaluating others fairly can be especially important in the areas of education, athletics, the workplace, or law. How might comparing students among each other affect a teacher's grading? How is a judge's evaluation of a gymnast affected by that athlete's past performance? To what extent will a company supervisor's evaluation of one of her subordinates be tainted by her relationship to that person and her visions of what role she will want him to play in the company in the future? How does a child feel if he notices that his mother is constantly comparing him to his older brother? How does this affect his relationship to her? And how does his mother feel if she knows she is doing that? These are just a few questions that can be addressed by studying other-comparisons. There are certainly many more venues one could go into, and I hope that I have sparked some interest and succeeded in demonstrating not only the existence of other-comparisons, but also why it is worth studying them further in the future.

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