

The Association between the Amount of Alcohol Consumed
by a Female and the Level of Blame Attributed to Her in a
Hypothetical Date-Rape Scenario

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.

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Abstract

Background: Victims of sexual assault have been reported to blame themselves for the incident. They see themselves as having somehow contributed to the situation. Self-blame associated with a sexual assault is argued to be socially constructed, influenced by culture's perception of sexual crimes. A specific behaviour that appears to contribute to victim's self-blame is alcohol use during the sexual assault incident. Approximately half of sexual assaults are associated with alcohol consumption by one or both parties. Victims who consume alcohol during the incident are more likely to blame themselves for the event. Self-blame has been linked to a decreased likelihood of reporting a sexual assault to authorities, as victims predict that others will disapprove their behaviour and blame them for their victimization. Limited research has been conducted on attribution of blame to the female victims who have been under the influence of alcohol during the sexual assault incident.

Objective: To examine the association between a female's level of intoxication and the level of blame attributed to her, and how this is modified by initiation and severity of the event, in a hypothetical date-rape scenario.

Methods: Secondary data analyses of 1004 quantitative telephone surveys completed in Sweden by randomly selected young adults aged 16-24. Date-rape vignettes were used and male's and female's levels of intoxication, severity of the outcome and the person initiating the sexual contact (perpetrator or victim) were manipulated. The depended variable was the amount of blame assigned to the female in the hypothetical date-rape scenario. The attribution of blame to the female was analysed using factorial ANOVA in SAS.

Results: For female respondents, the level of blame attributed to the female in the hypothetical date-rape scenario depended on a three-way interaction between the inebriation level, initiation, and severity, controlling for female respondents' living situation in the last 12 months, their frequency of drinking five or more drinks in the past 12 months, and their expectancy that 'alcohol makes people more sexual'. For male respondents, however, the level of blame attributed only depended on the severity of the situation, controlling for male respondents' mean number of standard drinks to feel the effects of alcohol and their attitude that 'alcohol lessons control'.

Conclusion: The inebriation level of the female in the date-rape scenario has been illustrated to impact the amount of blame attributed to her, by female respondents. This has implications for reporting rates of sexual crimes, and thus should be addressed by future policies and programs.

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1. Introduction

Findings from the Violence Against Women Survey (VAWS), conducted by Statistics Canada, illustrated that 39% of women have been victims of at least one incident of sexual violence since the age of 16 (Statistics Canada, 1993). However, results from the 2004 General Social Survey (GSS) illustrated that only 8% of sexual assaults were reported to authorities (Statistics Canada, 2006). This issue is even more prominent considering the low rate of conviction for sexual offences versus other types of violent crimes (Statistics Canada, 2008).

Similar to Canada, the first major national study in Sweden examining the degree of violence against women found that 34% of women have been victims of at least one incident of sexual violence since the age of 15 and 7% have been victim in the past year (Lundgren, Heimer, Westerstrand & Kalliokoski; 2002). Although Sweden has experienced an increase in the annual number of reported rapes from 1950 to 2004, the number of convictions for rape crimes has been constant during this period of time (Leander, 2005). Given the prevalence of sexual assault, the issue of underreporting and low conviction rates may contribute to a higher prevalence of sexual assault cases in the future, as potential perpetrators perceive a low probability of arrest and conviction. Thus, their actions may not be deterred.

The issue of underreporting has been linked to self-blame, as victims of sexual assault may see themselves as having somehow contributed to the situation (Ullman, 1996). Self-blame from sexual assault is argued to be socially constructed, influenced by society's perception of sexuality and sexual crimes (Weiss, 2010). A specific behaviour that appears to influence victim's self-blame is alcohol use during the sexual assault incident, as victims who deviate from

traditional gender roles, such as the notion that women should not drink excessively, are perceived as asking/wanting to be raped compared to victims that confirm to the norms (George, Gournic, & McAfee, 1988; George, Cue, Lopez, Crowe, & Norris, 1995). Approximately half of sexual assaults are associated with alcohol consumption (Abbey, 1991; Abbey, Ross, McDuffie, & McAuslan, 1996; Abbey, Mcauslan, & Ross, 1998; Muehlenhard & Linton, 1987; Ullman, Karabatsos, & Koss, 1999). Alcohol consumption in the context of social interactions such as parties and dates continue to be as a risk factor for sexual assault (McCauley et al., 2009). Studies found that females who consumed alcohol during the incident were more likely to blame themselves for the event, compared to females who did not consume alcohol (Littleton, Grills-Taquechel, & Axsom, 2009; Pitts & Schwartz, 1997). Female victims who blame themselves are less likely to report their sexual assault to authorities, as they predict that others will disapprove their behaviour and blame them for their victimization (Weiss, 2010).

Studies using mock jury deliberations found that female victims who had consumed alcohol prior to an incident of sexual assault were perceived as less credible by mock jurors (Wenger & Bornstein, 2006) and male perpetrators had a lower likelihood of being found guilty (Hammock & Richardson, 1997; Schuller & Wall, 1998). The victims were also perceived to be less credible and more blameworthy by police officers (Schuller & Stewart, 2000).

The current study examines the relationship between the amount of alcohol consumed by the female victim and the level of blame attributed to her, and how this is modified by initiation and severity of the event, in an hypothetical date-rape scenario. A thorough description of the study

will be preceded by a review of the relevant literature, which addresses sexual assaults involving alcohol and attribution of blame to the female victim, from various perspectives.

2. Literature Review

2.1 Sexual Assault Definitions

2.1.1 Canada

According to the Criminal Code of Canada, any intentional direct or indirect touching in a sexual way, without consent, is considered a sexual assault. Moreover, as stated in the Criminal Code, one has given consent when she/he willingly agrees to participate in a sexual activity in question, and when one is not capable of consenting to a sexual activity, no consent is obtained. Currently, the Supreme Court is deliberating whether a consent given prior to the loss of consciousness is sufficient to cover all sexual activities while unconscious. Regarding sexual assault cases, the accused individual's belief that consent was granted is not a defence against the charges in question, if the accused was intoxicated at the time when consent was assessed (Criminal Code, R.S.C. 1985). Therefore, intoxication is not accepted as a justification for a misinterpretation of consent, leading to a sexual assault incident. The Canadian Criminal Code does not address the legal impact of victim intoxication in cases of sexual assault.

2.1.2 Sweden

Sweden's Penal Code has only in the past two decades been altered to extend the legal definition of rape. In 1984, the definition of rape was broadened to include oral and anal intercourse (Leander, 2005). Then in 2005, following a thorough review of regulations addressing sexual offences, Sweden further expanded the legal definition of rape to include sexual exploitation: rape incidents where victims are unable to defend themselves, due to a helpless state such as intoxication (Leander 2005; Swedish Ministry of Justice, 2005). With regards to crimes

committed by intoxicated individuals, the Swedish Penal Code notes that “an act committed during self-induced intoxication or if the perpetrator has in some other way himself brought about the temporary loss of the use of his senses, this shall not cause the act to be considered non-criminal” (Swedish Penal Code, Ds 1999 pg.7). Although the impact of intoxication is addressed in the Swedish Penal Code, it is only addressed under the definition of crime and it is unknown what type of impact it will have in rape situations where both the perpetrator and the victim are intoxicated.

Furthermore, in 2005 the definition of rape also became broader through a reduction in the amount of violence required for a sexual offence to meet the conditions of rape (Swedish Ministry of Justice, 2005). Previously, only life threatening violence used to force a person to have sexual intercourse, or another sexual act comparable to sexual intercourse was considered rape. With the expansion of the legal definition of rape, the degree of violence condition was modified to include threats of serious nature.

2.2 Incidence and Prevalence of Sexual Assault

2.2.1 Canada

Sexual assault victims are predominantly female. Statistics Canada reported that in 2004, 86% of sexual assault victims were women (Statistics Canada, 2006). The findings from the Violence Against Women Survey (VAWS) conducted by Statistics Canada in 1993 noted that 39% of women were victims of at least one incident of sexual violence since the age of 16 (Statistics Canada, 1993). Similarly, the 1999 General Social Survey (GSS) on Victimization, using the

same questions as VAWS, found that 20% of women were sexually assaulted in the previous five years. No significant change in sexual assault rate was found between 1999 and 2004 GSS (Statistics Canada, 2005).

Due to the fact that most victims of sexual assault do not report the assault to authorities, the numbers of sexual assaults reported annually are known to be underestimates of the actual number of sexual assault crimes committed (Allgeier & Allgeier, 1995). Statistics Canada (1993) reported that only 6% of sexual assaults were reported to police. Similarly, the results from 2004 GSS illustrated that only 8% of sexual assaults were reported to authorities (Statistics Canada, 2006). Furthermore, conviction rates are lower for sexual offences than for other types of violent crimes (Statistics Canada, 2008)

The sexual assault report rate is known to be influenced by various characteristics of the assault incident. According to a recent community-based urban population study, women who were raped by someone they knew and women who had a history of recent alcohol or drug use were more reluctant to report a sexual assault incident (Jones, Alexander, Wynn, Rossman, & Dunnuck, 2009). An older study estimated that only 1% of date rapes are reported to police (Russell, 1984). This is an alarming issue considering that approximately half of sexual assault victims in 2004 reported that the perpetrator was someone who was known to them (Statistics Canada, 2006).

2.2.2 Sweden

In 2002, the first major national study in Sweden examining the degree of violence against women found that 34% of women were victims of at least one incident of sexual violence since the age of 15, and 7% were victimized in the past year (Lundgren, Heimer, Westerstrand & Kalliokoski, 2002). Other studies examining the prevalence of sexual violence against women in Sweden were not found.

The Swedish National Council for Crime Prevention reports a 58% increase in the number of reported sex crimes in past decade. Of all reported sex crimes, rape accounted for 38%, with sexual molestation as the most common (Swedish National Council for Crime Prevention, 2008). This drastic increase in the number of reported sex crimes in the past decade may not be an actual increase, but instead it may reflect political changes in the 1990s due to the introduction of the legislation and reform package on gender equality known as *Kvinnofrid* (Leander, 2005). This may have contributed to a cultural shift on perspective, empowering rape victims to report their experience. Although there has been an increase in the number of reported rapes in Sweden from 1950 to 2004, the number of convictions for rape has been constant during this period of time (Leander, 2005). In 2003, two-thirds of rapes cases were dropped on the basis of ‘insufficient evidence’ (Leander, 2005). It may be that the increase in reported rapes was due to an increase in the report of less violent rapes. The victims may not have presented the necessary physical evidence to support a charge of rape, resulting in these cases being dropped on the grounds of insufficient evidence. Further analysis of rape statistics would be required to confirm if this is the case.

2.3 Self-blame and Underreported Rape

Often, victims of sexual assault have been reported to blame themselves for the incident, sometimes believing that they have contributed to the situation in some way (Ullman, 1996). Self-blame from sexual assault incidents is argued to be socially constructed, influenced by culture's perception of sexuality and sexual crimes (Weiss, 2010). Thus, whether or not a victim blames herself is argued to depend on how the culture perceives her behaviour during the sexual assault situation. If the victim feels that she has behaved in a manner that deviates from her prescribed gender role, she may feel that she has done something wrong that led to her assault. A specific behaviour that appears to contribute to victims' self-blame is alcohol use during the sexual assault incident, as women who consume alcohol are perceived as promiscuous (George et al., 1988; George et al., 1995). Studies found that victims who consumed alcohol during the incident were more likely than those who did not consume alcohol to blame themselves for the event (Littleton et al., 2009; Pitts & Schwartz, 1997). Women who blame themselves are less likely to report the sexual assault to authorities, as they predict that others will disapprove of their behaviour and blame them for their victimization (Weiss, 2010). In summary, society's perception of sexuality and sexual crimes may influence victim self-blame, which impacts whether or not the sexual assault is reported.

2.4 Prevalence of Alcohol-involved Sexual Assault

Approximately half of sexual assaults among college student in United States are associated with alcohol consumption (Abbey, 1991; Abbey et al., 1996; Abbey et al., 1998; Abbey, Zawacki, Buck, Monique Clinton, & McAuslan, 2001; Abbey, Zawacki, Buck, Clinton, & McAuslan,

2004; Muehlenhard & Linton, 1987; Ullman et al., 1999). Alcohol consumption in the context of social interactions such as parties and dates continues to be a risk factor for sexual assault (McCauley et al., 2009). In approximately two thirds of alcohol-involved sexual assault both the victim and the perpetrator consumed alcohol (Abbey et al., 1996; Ullman et al., 1999). A recent study reported that voluntary alcohol consumption by women precedes majority of drug-related sexual assaults (Lawyer, Resnick, Bakanic, Burkett, & Kilpatrick, 2010).

Rape, as opposed to other types of sexual assaults, has been associated with a higher rate of alcohol consumption by the victims (Harrington & Leitenberg, 1994). Studies report that completed rapes versus attempted rapes are more likely to involve victims who have consumed alcohol (Abbey et al., 1996; Harrington & Leitenberg, 1994). Furthermore, the quantity of alcohol consumed by the victim and her level of intoxication is found to be higher in completed versus attempted rapes (Abbey, Clinton, McAuslan, Zawacki, & Buck, 2002).

2.5 Pharmacological Effects of Alcohol Consumption and Sexual Assault

Both older and recent studies on the pharmacological effects of alcohol have reported that alcohol consumption impairs cognitive skills and thus limits the number of cues perceived and ultimately hinders higher-order thinking (Abroms & Fillmore, 2004; Fillmore, Marczinski, & Bowman, 2005; Hindmarch, Kerr, & Sherwood, 1991; Hull, 1981; Peterson, Rothfleisch, Zelazo, & Pihl, 1990; Schweizer et al., 2006; Steele & Southwick, 1985). Steele & Josephs (1990) were the first to introduce the term ‘alcohol myopia’ to explain how alcohol consumption limits the number of cues that one can effectively attend to, thus individuals under the influence of alcohol

focus their attention in the most proximal cues. Alcohol myopia is also supported by other studies reporting that intoxicated individuals focus on the most salient and immediate cues, such as the desire to have fun, rather than covert peripheral information, such as potential long-term negative consequences of decisions made while intoxicated (Chermack & Taylor, 1995; Murphy, Monahan, & Miller, 1998).

When intoxicated sexual arousal is known to become a salient and impelling cue for men (Abbey, Buck, Zawacki, & Saenz, 2003; Gross, Bennett, Sloan, Marx, & Juergens, 2001; Norris, Davis, George, Martell, & Heiman, 2002). Thus it is hypothesized that alcohol myopia predisposes some men to commit sexual assault by allowing them to concentrate on their immediate feelings of sexual arousal, instead peripheral cues, such as the potential negative consequences of sexual assault (Abbey et al., 2001). Studies illustrate that relative to being sober, men under the influence of alcohol were more likely to perceive women's ambiguous cues and friendliness as a sexual interest: as their ability to discriminate between friendliness and sexual interest decreased with increased alcohol consumption (Farris, Treat, & Viken, 2010). Similarly, men who consumed alcohol perceived their partners' behaviour as more sexual, than did men in the sober or placebo group (Abbey, Zawacki, & Buck, 2005). Thus, the misperception of sexual intent may lead to an increased risk for sexual coercion (Farris, Treat, Viken, & McFall, 2008).

Similarly, a recent study using hypothetical vignettes (scenarios) of ambiguous heterosexual interaction also illustrated that intoxicated individuals, relative to sober individuals, were more likely to think that the male and the female in the vignettes would engage in sexual intercourse

either willingly or against their will (Bartolucci, Zeichner, & Miller, 2009). This further illustrates how attention is given to the most proximal cues when individuals are under the influence of alcohol.

Alcohol myopia affects the cognitive appraisal process of social cues before decision making; social needs, such as a desire to have fun, are perceived as more important than concerns for safety (Davis, George, & Norris, 2004; Norris & Cubbins, 1992). This phenomenon has the potential to hinder women's ability to oppose unwanted sexual advances (Abbey, 2002), as the attention to cues in support of personal goals is amplified; whereas attention to peripheral cues is diminished. Hence, women who consumed alcohol have been shown to be less aware of and discomforted by sexual assault cues, compared to women who did not consume alcohol (Davis, Stoner, Norris, George, & Masters, 2009); these cues are thus perceived as peripheral. In these situations, misperception of danger may place women at an increased risk for sexual victimization due to a delay in response. This alcohol-induced delay in recognizing, and then resisting, unwanted sexual advances increases one's vulnerability for experiencing unwanted sexual intercourse (Franklin, 2010). Therefore, women who are under the influence of alcohol during the incident of sexual assault may be perceived as blameworthy for drinking and hence placing themselves in a risky situation where their delayed response is not enough to resist sexual assault. In addition, their delay in response may also be perceived as 'leading the men on' and thus the victims may be viewed as contributors to their own assault.

2.6 Psychological Effects of Alcohol Consumption and Sexual Assault

Pre-existing expectancies and beliefs regarding the effects of alcohol are known to influence one's behaviour after alcohol consumption (George et al., 1995; George, Stoner, Norris, Lopez, & Lehman, 2000; Norris & Cubbins, 1992). Thus, individuals who expect alcohol to increase sexual arousal may feel more aroused when they drink alcohol. In fact, studies have reported that men who thought that they were drinking alcohol, when in fact they were given a non-alcoholic beverage, felt more sexually aroused than men who knew that their drink was non-alcoholic (Briddell, Rimm, & Caddy, 1978; George et al., 2000). Results of these studies illustrate that expectancies regarding the effects of alcohol, may influence how individuals feel and act after they have consumed alcohol. With regards to sexual aggression, a double blind experimental study found that after reading a violent pornographic story, men with high sex-related alcohol expectancies rated themselves as more likely to commit sexual assault, independent of whether they were in the treatment or placebo group (Norris et al., 2002). Considering these findings, in cases of alcohol-involved heterosexual sexual assault where both the female victim and the male perpetrator have consumed alcohol, one may argue that men are more blameworthy because they expect to behave in more sexually aggressive ways, after consuming alcohol and by consuming alcohol, they therefore place themselves in a situation where they are at an increased risk for committing a crime.

2.7 Theories on Attribution of Blame

Attribution of blame in sexual assault cases may be best understood through the *Defence Attribution Theory*, *Corresponded Inference Theory*, and the *Just World Theory*. These theories

may assist in explaining the blame placed on the victim in sexual assault incidents involving alcohol.

2.7.1 Shaver's Defensive Attribution Theory

According to the *Defence Attribution Theory* (Shaver, 1970), less blame is placed on the victim when the perceiver has a high personal relevance with the situation. According to this theory, the perceivers' goal is to protect their own self-esteem in cases where they identify with the victim and can see themselves being in a similar situation. Thus, they do not blame the victim, since blaming the victim would mean that they too may be blamed in a comparable context. Therefore according to this theory, females would attribute less blame towards the victim due to the personal relevance (i.e., shared gender). In contrast, male perceivers may relate more to the male perpetrator and thus blame the victim more than the perpetrator. The *Defence Attribution Theory* has been supported by several studies, which found that individuals who can relate to the victim and her/his situation, blame the victim less for the rape incident (Burt & DeMello, 2002; Idisis, Ben-David, & Ben-Nachum, 2007; White & Robinson Kurpius, 1999; Workman & Freeburg, 1999). Thus, it is not surprising to find that women, compared to men, attribute less blame towards a female victim (Idisis et al., 2007).

2.7.2 Jones' and Davis' Theory of Corresponded Inference

The attribution of blame according to *Corresponded Inference Theory* (Jones & Davis, 1965) depends on the observer's perception of actor's awareness of the consequences of his/her actions. Therefore, if the perceiver thinks that the person in question was aware of the consequences of

his/her actions, then the person in question is perceived as more blameworthy. Thus, according to this theory, whether or not a victim of sexual assault is perceived as blameworthy will depend upon the perceiver's view on whether the victim had knowledge of the consequences of her actions during the incident (i.e., alcohol consumption). The *Corresponded Inference Theory* is supported by various studies illustrating that victims of sexual assault are blamed for their victimization in sexual assault cases involving alcohol consumption by the victim (Richardson & Campbell, 1982; Schuller & Stewart, 2000; Stormo, Lang, & Stritzke, 1997; Wild, Graham, & Rehm, 1998), as they should have known better than to place themselves in a risky situation.

2.7.3 The Just World Hypothesis

Attribution of blame may also be explained by the *Just World Theory* according to which individuals search for comfort in the belief that 'bad things happen to bad people' (Lerner, 1970). In other words, people deserve what happens to them; thus, the perceiver's explanation for the sexual assault is that the victim somehow deserved it. The perceiver does not want to believe that bad things occur randomly. However, if the perceiver chooses the opposite avenue and considers not blaming the victim, she/he is faced with the premise that the victim did not deserve the misfortune, and thus will have to confront the uncomfortable thought that what happened to the victim could happen to her/him as well. Accordingly, the belief in a just world may serve a defensive function for the perceiver (Finch & Munro, 2007).

The Just World Hypothesis is supported by studies using mock jury deliberations to study sexual assaults involving victims who have been under the influence of alcohol during their sexual

assault incident (Finch & Munro, 2007; Kleinke & Meyer, 1990). This theory provides a partial explanation for why some studies found that females as opposed to males elicit less sympathy towards victims and perceive them as more blameworthy (Cameron & Stritzke, 2003; Cowan, 2000).

2.8 Alcohol Consumption, Rape and Social Norms

MacAndrew & Edgerton (1969) proposed the concept of drunkenness as a “time out”. In other words, when alcohol is consumed, one may blame the state of intoxication rather than oneself for his/her inappropriate and risky behaviour. In such cases, alcohol is used as an excuse for deviant behaviour while preserving one’s character as good and not deviant. However, drunkenness as a time out has limits, thus one will not be excused of all deviant behaviours. Because different societies have different norms, these limits differ from one society to another, but overall, a behaviour that is most deviant (i.e. murdering someone while drunk) is least likely to be considered acceptable within the limits of the timeout. With regard to sexual assault, the Criminal Code of Canada does not support the use of intoxication as a defence for miscommunications regarding consent. Considering the attribution of blame in alcohol-involved sexual assaults, one may expect that the severity of the sexual assault situation will predict whether the victim is perceived as blameworthy. For example, in date rape cases where the female victim has done everything she could to resist the sexual assault, such as screaming and fighting off the perpetrator, she may be blamed less than in a situation where she has been coerced into participating in a sexual activity. From the perspective proposed by MacAndrew & Edgerton (1969), forcing a woman to participate in a sexual activity, while she is fighting and

screaming against it, is outside of the limits of time-out, because even when drunk the man should know that is time to stop. From the same perspective, coercion may be perceived as less deviant and within limits of the time-out. It may be that in such situations the severity of an event is judged based on the amount of harm caused (Walster, 1966). Here, the woman's degree of physical resistance against the assault is found to be an important variable in attribution of blame (Shotland & Goodstein, 1983).

Several studies illustrate that women who consume alcohol are portrayed, by both men and women, as more willing to engage in sexual activity (Corcoran & Thomas, 1991; George et al., 1988). College students perceive women who drink as more promiscuous than women who do not drink (George et al., 1988; George et al., 1995). Consequently, this may support victim blaming in situations where women were intoxicated during the sexual assault. However, it is important to note that these studies were American and thus, due to the limited research it is unclear whether the Swedish population has a similar perspective.

A study by Norris and Cubbins (1992) using vignettes found that the depiction of acquaintance rape was perceived as consensual, by college students, because the couple was drinking. College students were more likely to categorize a situation as rape and blame the man more, when the woman in the scenario was depicted as drinking alone. However, in a situation where both the man and the woman were drinking together, the woman's negative response to sexual advances was not perceived as serious and hence the situation was less likely to be labelled as rape (Norris

& Cubbins, 1992). Such findings illustrate the social norms associated with sexual assaults involving alcohol.

2.9 Public Perception of Women who Consume Alcohol

Traditional gender roles require men to be dominant, strong and aggressive; whereas women are required to be submissive, emotional and passive, but at the same time serve as gatekeepers for sexual interactions (Adams-Curtis & Forbes, 2004). As such, traditional gender role stereotypes have contributed to a double standard, where women who drink are viewed more negatively than men (Richardson & Campbell, 1982). The double standard persists with a recent study illustrating that acquaintance rape victims who deviate from traditional gender roles, the notion that women should not drink, are perceived as asking/wanting to be raped compared to victims that conform to the norms (Harrison, Howerton, Secarea, & Nguyen, 2008). When victims violate traditional gender roles, they are perceived as more blameworthy (Hammock & Richardson, 1997; Sims, Noel, & Maisto, 2007). Victims who have been under the influence of alcohol during the sexual assault incident are also perceived as being less credible and more blameworthy by police officers (Schuller & Stewart, 2000). Therefore, it is expected that the more drinks the victim consumed prior to the sexual assault, the more she will be blamed for her victimization, as she has deviated from her traditional gender role and thus is perceived as contributing to her sexual assault.

2.9.1 Alcohol Consumption and Perception of Blame

Various institutional discourses influence attribution of blame and responsibility. The current dominant discourse supports the blame of female victims for their victimization (Meyer, 2010; Thapar-Bjorkert & Morgan, 2010). Victim blaming may partly explain why women are reluctant to report a sexual assault incident to authorities.

When women consume alcohol they are perceived as sexually disinhibited, thus sexual assault victims who have consumed alcohol prior to the incident are seen as more blameworthy than those who did not consume alcohol (Clark & Lewis, 1977), which is in accordance with the Corresponded Inference Theory of blame attribution (Jones & Davis, 1965). Studies report that even moderate consumption of alcohol decreases the perceived credibility of the victim (Schuller & Wall, 1998). Similarly, studies using mock jury deliberations found that women who had consumed alcohol prior to the sexual assault incident were perceived as less credible by mock jurors (Wenger & Bornstein, 2006) and perpetrator had a lower likelihood of being found guilty, compared to situations where women did not consume alcohol (Hammock & Richardson, 1997; Schuller & Wall, 1998). Moreover, studies using vignettes also found that the more intoxicated the victim was portrayed in the vignette the less credible she was perceived by police officers and the greater the likelihood that the police officers would side with the perpetrator (Schuller & Stewart, 2000). Comments from mock jury deliberations implied that women who are intoxicated are more likely to consent to sex and men who are intoxicated are less able to understand ambiguous cues in situations where there is a lack of consent (Ellison & Munro, 2009). Thus, alcohol consumption may decrease the total amount of blame attribution; however, the portion attributed to the victim may increase. Only when the female victim is intoxicated

more than the male perpetrator is, greater blame is attributed to the perpetrator (Stormo et al., 1997). In other alcohol-involved sexual assault studies, the perpetrator's culpability is decreased when the women consumes alcohol (Wild et al., 1998). This may be partly explained by the fact that alcohol consumption by women is perceived as a sexual cue, thus increasing the likelihood that women's friendliness may be misperceived as sexual intent (Abbey & Harnish, 1995). Thus, women who are intoxicated during the sexual assault may be blamed more than those who are not intoxicated, because they are perceived as sexually disinhibited and perceived as luring the men on.

With regards to gender differences on attribution of blame in relation to sexual assault, findings from various studies consistently illustrate a difference between male and female observers.

Men, compared to women, perceive the female victim as more blameworthy (Bell, Kuriloff, & Lottes, 1994; George & Martínez, 2002; Harrison et al., 2008; Workman & Freeburg, 1999).

Relative to female observers, male observers indirectly attributed more blame to the victim by indicating that the victim had done something to seduce the perpetrator (Johnson, 1995).

Concerning the perception of blame and relationship type between victim and perpetrator, women who are raped by an acquaintance are more likely to be blamed than those who are raped by a stranger, irrespective of alcohol consumption (Bridges & McGrail, 1989; Frese, Moya, & Megías, 2004; Schuller & Klippenstine, 2004; Scronce & Corcoran, 1995).

2.10 Cultural and Social Context Relevant to the Study

2.10. 1 Responsibility for Crimes Committed

Unlike majority of the countries in the world, Sweden has the highest age for which a person is not held criminally responsible for the crimes they commit. In Sweden, youth are not held criminally responsible until the age of 21, however, in Canada the age at which a young person is held criminally responsible depends on the type of crime that has been committed (Altstein & Simon, 2007). If murder, armed robbery, breaking an entry or sexual assault has been committed the young person is held criminally responsible at a younger age, otherwise up to 17 years of age one is not held criminally responsible (Altstein & Simon, 2007). This contextual factor may be relevant to the study as it may influence how youth perceive sexual violence and thus impact the generalizability of the findings to Canadian context.

2.10. 2 Literacy Skills

Sweden and Canada have been known to have a wide gap on literacy skills. Excluding foreign born individuals, among youth aged 16 to 25, without post-secondary education, 12% of Swedes versus 39% of Canadians had literacy skills below level 3 (able to understand and use information in daily life) in all three literacy domains (document, prose, quantitative) (Kapsalis, 2001). This is of particular interest as low literacy skills are closely correlated with low levels of education (Kapsalis, 2001). Interestingly, Canadian youth are required to start school at 6 years of age, in contrast to Swedes at 7 years of age (Altstein & Simon, 2007; Cole & Logan, 2010). However, this literacy gap is argued to be partly explained by the fact that Swedish youth engage more often than Canadian youth in activities that promote literacy skills, such as volunteering

and using public libraries (Kapsalis, 2001). The literacy skills among Swedes and Canadians may be important to consider when addressing generalizability of the findings, as literacy may impact one's perception of sexual violence.

2.10. 3 Living Arrangements

In late 1990s, majority of Swedish youth between the ages of 18 and 19 lived at home with parents, followed by living alone, and living with a partner (Nordenmark, 2001). Of those between the ages of 20 to 24, the majority of women lived with a partner, followed by living alone, whereas almost equal proportion of men lived alone, lived with parents or lived with a partner (Nordenmark, 2001). Although parallel data were not available for Canadian counterparts, majority of Canadian youth between the ages of 15 and 24 lived with parents and about 25% lived with neither one of the parents (Liu, Kerr & Beaujot, 2006). When addressing the generalizability of the study, it may be important to consider the difference in the living arrangements between Canadian and Swedish youth. Living arrangements may indirectly impact how sexual violence is perceived, and thus, such differences may limit the generalizability of the study from the Swedish population to the Canadian population.

2.10. 4 Drinking Patterns

A cross-national study comparing drinking patterns among youth in late 1990s found that 5% of Swedish adolescents drank six or more times last month, 41% drank five or more drinks on any day last month, 82% drank last year and 41% drank at least once last month (Smart & Ogborne, 2000). On the other hand, 4% of Canadian youth drank six or more times last month, 21% drank

five or more drinks on any day last month, 59% drank last year and 21% drank at least once last month (Smart & Ogborne, 2000). Per capita alcohol consumption for Sweden and Canada was 5.2 and 6.1 litres of pure alcohol for year, respectively (Smart & Ogborne, 2000). As illustrated, although Sweden has a lower per capita alcohol consumption, a similar proportion of Swedish and Canadian youth drank six or more times last month, however, Swedish youth were more likely than Canadian youth to have drunk last year, drank at least once last month and drank five or more drinks any day last month. The drinking patterns may be relevant in addressing the generalizability of the Swedish findings to the Canadian context as they may impact the attribution of blame in sexual assault cases where alcohol is involved.

2.10. 5 Sexual Characteristics

Among many sexual characteristics, the age at first intercourse has been associated with sexual abuse. Young women, who had intercourse before the age of 15, were more likely to experience sexual abuse (Forsberg, 2000). More specifically, sexual coercion has been associated with a younger age at first sexual intercourse (Yimin, et al., 2001). The average age at first sexual intercourse for Swedish people between the ages of 18-34, in late 1990s, was 16.5 years for women and 17 years for men (Sundström, 2001). Similarly, the findings from the 2003 Canadian Community Health Survey demonstrated that the average age at the first sexual intercourse for both males and females was 16.5 years (Rotermann, 2005). The age at first intercourse is relevant for the current study because it may indirectly illustrate whether the findings from the Swedish context can be generalized to the Canadian population. Considering the association between the age at first sexual intercourse and the likelihood of experiencing sexual violence, a

major difference in the average age of first intercourse between the Swedish and Canadian youth may result in differences on how sexual violence is perceived from Swedish versus Canadian youth and thus limiting the generalizability of the findings.

3. Research Rationale and Objective

3.1 Rationale

The level of blame attributed to a victim of a date-rape, where the victim, the perpetrator or both have consumed alcohol, has many implications not only on culture's perception of this issue, but also on policies and programs that can be developed to change social norms in accordance to human rights. Sweden, although advanced in many areas, has been delayed in the development of laws concerning sexual violence. Only in 2005 has the Swedish law expended the legal definition of rape to include sexual exploitation. Considering that the current study is a national study and the data were collected before this change in policy, the findings from the current study have the potential to be used in monitoring the impact of the policy, in changing social norms regarding date-rape.

Previous studies have mainly examined alcohol and aggression in men and the blame attributed to the male perpetrator of a date-rape where alcohol was involved. Less research has been conducted on attribution of blame to the victim especially with respect to date-rape, where blame and responsibility are notably less clear-cut than in a stranger rape. Studies have revealed a relationship between the amount of alcohol consumed by the female victim and the level of blame attributed to her, however it has not been examined how this relationship is modified by initiation and the severity of the event. Thus, the current study contributes to the literature by examining the following objective.

3.2 Objective and Hypotheses

Objective: To examine the association between the amount of alcohol consumed by the female and the level of blame attributed to her and how this is modified by initiation and severity of the event, in a hypothetical date-rape scenario.

Hypothesis 1: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, the more she will be blamed.

Hypothesis 1a: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, less blame will be attributed to the female if the event is more severe (full date-rape scenario) than if the event is less severe (sexual coercion scenario).

Hypothesis 1b: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

Hypothesis 2: When the female is very drunk and the male is sober, less blame will be attributed to her, compared to a situation when both of them are very drunk.

Hypothesis 2a: When the female is very drunk and the male is sober, less blame will be attributed to the female in the full date-rape scenario compared to the sexual coercion scenario.

Hypothesis 2b: When the female is very drunk and the male is sober, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

Hypothesis 3: When the male is very drunk and the female is sober, less blame will be attributed to her, compared to a situation when both of them are very drunk.

Hypothesis 3a: When the male is very drunk and the female is sober, less blame will be attributed to the female in the full date-rape scenario compared to the sexual coercion scenario.

Hypothesis 3b: When the male is very drunk and the female is sober, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

4. Methods

4.1 Setting

The present study examines the attribution of blame in date-rapes involving victim intoxication, among Swedish youth. The study is based on the survey data collected by a nationally representative Swedish study conducted by investigators at Stockholm University in 2002, to explore social norms regarding alcohol and violence among youth across Sweden (Tryggvesson & Bullock, 2004).

4.2 Sample and Sample Selection

4.2.1 Participants

The study sample consisted of Swedish young adults between the ages of 16 and 25. Individuals who did not speak Swedish and those who were not between the ages of 16 and 25 were excluded from the study, as the study's objective was to explore attitudes and social norms regarding alcohol and violence among Swedish youth and younger adults. A total of 1004 participants completed the study, of whom 519 were females and 485 were males. The mean age of participants was 19.7 years (SD=3).

In comparison to the national population aged 16 to 25 with a mean age of 20.6 years (SD=3.7; $p < 0.0001$), the study sample was significantly younger. Thus, the sample had a higher proportion of students and a lower level of education than the national population, due to an overrepresentation of participants between the ages of 16 and 18. There was no significant difference in regional distribution between the sample and the national population. The

summary of sociodemographic differences between the population and the sample is presented below in Table 1.

Table 1
Comparison of Sociodemographic Characteristics between the Study Sample, the Weighted Sample Distribution and the Similarly Aged Population of the Swedish Nation

Sociodemographic Characteristic	Population Distribution N=1,031,623		Sample Distribution N=1,004		Weighted Sample Distribution	
	n	(%)	n	(%)	n	(%)
Sex						
Male	527,177	(51.1)	485	(48.3)	484.6	(48.3)
Female	504,446	(48.9)	519	(51.7)	519.6	(51.7)
			$\chi^2=3.25$ (df=1) p=0.077		$\chi^2=3.25$ (df=1) p=0.077	
Age						
16	101,663	(9.9)	169	(16.8)	98.9	(9.9)
17	99,460	(9.6)	131	(13.0)	96.8	(9.6)
18	100,595	(9.8)	159	(15.8)	97.9	(9.8)
19	101,004	(9.8)	84	(8.3)	98.3	(9.8)
20	104,249	(10.1)	79	(7.9)	101.5	(10.1)
21	102,803	(9.9)	77	(7.7)	100.1	(9.9)
22	100,021	(9.7)	76	(7.6)	97.3	(9.7)
23	103,296	(10.0)	73	(7.3)	100.5	(10.0)
24	106,353	(10.3)	63	(6.3)	103.5	(10.3)
25	112,170	(10.9)	93	(9.3)	109.2	(10.9)
Mean (SD)	20.6	(SD=2.9)	19.7	(SD=3.0)	20.6	(SD=2.9)
			$\chi^2=137.3$ (df=9) p<0.0001		$\chi^2=0.01$ (df=9) p=1.000	
Marital Status						
Single and Cohabiting	996,697	(96.6)	981	(97.9)	975.7	(97.3)
Married	32,167	(3.1)	19	(1.9)	24.6	(2.5)
Divorced	46	(0.0045)	1	(0.1)	1.2	(0.1)
Other	2,713	(0.26)	1	(0.1)	1.3	(0.1)
Missing	--		2		1.3	
			$\chi^2=25.97$ (df=3) p<0.0001		$\chi^2=22.39$ (df=3) p<0.0001	
Education (highest level)						
Grundskola (9 years)	392,419	(38.0)	493	(54.1)	349.7	(34.8)
Gymnasium (high school)	438,588	(42.5)	366	(40.2)	545.9	(54.4)
University / College	162,655	(15.8)	33	(3.6)	73.5	(7.3)
Other	37,961	(3.7)	19	(2.1)	34.9	(3.5)
			$\chi^2=103.6$ (df=3) p<0.0001		$\chi^2=80.8$ (df=3) p<0.0001	
Work Situation						
Employed	441,200	(47.9)	348	(38.3)	487.3	(48.6)
Full-time (35+ hours)	254,500	(27.6)	208	(22.9)	332.7	(33.2)
Part-time (<35 hours)	170,100	(18.5)	140	(15.4)	154.6	(15.4)
Hours unknown	16,600	(1.8)	-		-	
Unemployed	38,400	(4.2)	44	(4.8)	59.0	(5.9)
Not in Work Force	441,400	(47.9)	518	(56.9)	456.4	(45.5)
Keeping house	6,700	(0.7)	9	(1.0)	17.7	(1.7)
Disabled	7,300	(0.8)	4	(0.4)	6.8	(0.7)

Table 1

Comparison of Sociodemographic Characteristics between the Study Sample, the Weighted Sample Distribution and the Similarly Aged Population of the Swedish Nation (continued)

Sociodemographic Characteristic	Population Distribution N=1,031,623		Sample Distribution N=1,004		Weighted Sample Distribution	
	n	(%)	n	(%)	n	(%)
Student (full-time)	342,600	(37.2)	501	(55.1)	427.0	(42.6)
Military	8,100	(0.9)	4	(0.4)	4.9	(0.5)
Other	76,700	(8.3)	-		-	
Missing			1		1.3	
			$\chi^2=34.04$ (df=2) p<0.0001		$\chi^2=8.41$ (df=2) p=0.0149	
Parents country of birth						
Neither born in Sweden	141,507	(13.6)	75	(7.5)	75.6	(7.5)
One born in Sweden	900, 152	(86.4)	101	(10.1)	102.7	(10.2)
Both born in Sweden			826	(82.3)	824.5	(82.2)
Missing	-		2		2	
			$\chi^2=30.5$ (df=1) p<0.0001		$\chi^2= 31.74$ (df=1)p<0.0001	

The sample was weighted by age, to ensure that it was representative of the age distribution in the national population. It was also household weighted to take in account the number of individuals that met the selection criteria within a household. This was undertaken to correct for the unequal selection probability for eligible individuals living in a household, when more than one person met the selection criteria (Kish, 1965, 1992). For sociodemographic characteristics of the sample after age and household weights were applied please refer to Table 1. As demonstrated, after the weights were applied no significant difference remained between the adjusted sample and the national population.

4.2.2 Recruitment Process

Study participants were recruited through random digit dialling of home telephone numbers across Sweden. Seventy-five percent of numbers were drawn from the Swedish registry of active

phone numbers and 25% were partly synthesized by adding 1 to the last digit of the phone number. Cell phones were not included¹.

In the event that more than one individual in the household met the selection criteria, the eligible individual with the most recent birthday was selected to participate in the study. If that particular individual was not home, the interviewer would ask for a day and a time when the individual was most likely to be reached. In 2.09% of cases, the interviewers contacted the household more than seven times to reach the potential interviewee. In the events where no one answered the call, the number would be re-dialled for a maximum of seven attempts, on different days at different times, before the participant was considered to be unreachable.

The response rate was estimated by the call-centre to be 82.7%. However, a conservative estimate of the response rate was calculated to be 73.8%. This estimate took in account the proportion of unanswered phone numbers that were estimated to be non-business and contained a responded within study's age range, based on Swedish census data. More specifically, for the events where no one answered the phone, it was assumed that 10% of these households would have had an individual who met the selection criteria. These individuals were categorized as refusing to be involved in the study, thus decreasing the study's response rate. The 10% was based on the fact that one in ten phone calls, where the phone was answered, included an individual who met the selection criteria and hence was eligible to participate in the study. Non-responses due to invalid telephone numbers or telephone numbers known to belong to businesses

¹ Cell phones were excluded by non-inclusion of the area codes assigned to them.

did not influence the reported response rate, since such phone numbers were considered to be outside the study's sampling boundaries.

4.3 Data Collection

4.3.1 Design

An external company known as M.O.A was contracted by investigators at Stockholm University to conduct cross-sectional computer-aided telephone interviews (CATI). The survey was administered in Swedish. At the beginning of the interview, participants were informed that the interview would take approximately 25 minutes, in reality the average interview duration was 22.5 minutes (SD=6.16). Informed consent was obtained by verbal agreement (see Appendix A for consent statement).

The questionnaire was comprised of six sections: A) alcohol, drug consumption and drinking patterns, B) aggression vignettes, C) alcohol related expectancies, D) attitudes, E) experience of aggression and F) sociodemographic characteristics. Please refer to Appendix B for the complete questionnaire. The design of the date-rape vignette, which is the focus of this study, is described below.

Date-rape vignette. To address the objectives of this study, participants were asked to respond to questions about a hypothetical date-rape scenario. The level of intoxication experienced by the female (Lena) and the male (Olof) were randomly manipulated in order to explore blame

attribution relative to Lena's and Olof's level of intoxication. In addition, the initiator of sexual contact and the severity of the incident were also manipulated, as it was hypothesized based on MacAndrew and Edgerton's (1969) 'time out' and 'within limits' constructs that these variables would influence whether or not Lena and Olof were blamed for the incident. Computer assisted interviewing techniques were used to systematically manipulate these variables and randomly select one version of the vignette to be presented to the participant. Since, each participant responded to only one variation of the vignette, analyses were conducted between-subjects. The vignette represented a 5 (male and female drunkenness) X 2 (initiation) X 2 (severity) factorial design, leading to 20 scenario alternatives. Preliminary analysis revealed that the 20 scenarios were used equally for both male and female respondents. See Appendix B for the vignette and all manipulated variables. An example of one version of the vignette is as follow:

"Lena and Olof are classmates and are at the same party. They spend a lot of time together at the party and Olof suggests they should go to a room where it is quieter and they can get to know each other better. At this point, Olof and Lena have both had enough alcohol to be very drunk. Once in the room, they begin to kiss and Olof begins to remove Lena's blouse. When Olof wants to have sex, Lena says she would rather wait, but Olof is insistent and she gives in and they have sex".

4.3.2 Measures

Dependent variable. As a measure of whether intoxication is associated with increased blame to the female in a date-rape situation, participants were asked about the amount of blame they would attribute to Lena. After participants were presented with their specific version of the

vignette, they were asked: *On a scale from 1 to 10, how much blame should be put on Lena in this situation, where 1 equals none at all, and 10 equals a lot of blame?* (Appendix B, question B2d). Thus, the amount of blame placed on the female in the hypothetical date-rape scenario was the dependent variable used to examine the objective of this study.

To explore the reliability of the dependent measure, a pilot test was conducted including 25 individuals aged 16-25years. They completed the survey by telephone as did the main study participants; however they completed the same version of the questionnaire with vignettes twice, three days apart. There was a strong agreement between the test and re-test scores on Lena's blame ($Kappa=0.88$). Therefore the reliability of the dependent measure is strong (Bullock, *in press*).

Independent variables. There are three independent variables addressed in this study. The independent variables and their variations are as follow:

1. Lena's and Olof's alcohol consumption: five-category variable
 - a. Lena and Olof are both on their first glass of wine and are still sober
 - b. Lena and Olof have both had enough alcohol to be a little drunk / feel the effects²
 - c. Lena and Olof have both had enough alcohol to be very drunk³
 - d. Lena is on her first glass of wine and still sober and Olof has drunk enough to be very drunk

² Participants were provided with a definition of 'feeling the effects' - feeling still under control but more relaxed or light-headed or happy or more talkative or having slight slurred speech or feeling a little bit clumsy (Appendix B).

³ Participants were provided with a definition of 'feeling very drunk' - loosing coordination or difficulty talking or walking or thinking straight or seeing double or feeling sick (Appendix B).

- e. Lena has had enough alcohol to be very drunk and Olof is on his first glass of wine and is still sober

2. Who initiated sexual activity: dichotomous variable (Olof or Lena)

- a. Olof suggests that they go to a room where it is quieter and they can get to know each other better and then removes Lena's blouse
- b. Lena suggests that they go to a room where it is quieter and they can get to know each other better and then removes Olof's shirt

3. Severity: dichotomous variable (low severity or high severity, indicates how aggressive Olof was in response to Lena's attempt to stop him)

- a. Lena says she would rather wait, but Olof is insistent and she gives in and they have sex
- b. Lena fights back and yells for help but Olof goes ahead and has sex with her anyway

The pilot test included follow-up questions to the vignettes to ensure that when participants were read a version of the vignette they were able to understand and remember the manipulated variables, as they heard them read within the vignette. Since the study was initially designed to determine the Olof's blame and responsibility, follow-up questions were only asked about his alcohol consumption and not Lena's. When asked how much Olof drank 22/25 (88%) participants indicated his consumption correctly, 2 (8%) overestimated his consumption, while 1 (4%) underestimated it. There is no reason to believe that the accuracy would be less when asked a similar question about Lena's consumption.

When asked about severity of the event 24/25 (96%) participants correctly indicated either the low or the high severity event as read to them. One individual who was read the low severity

incident identified it as high severity. Finally, when asked who initiated the event, 100% of the participants identified correctly the individual (Lena or Olof) who initiated the event in the vignette as it was read to them. Therefore, the verbal-telephone delivery of the vignette was judged to be a reliable form of vignette delivery.

Demographic measures. All participants were asked their sex (dichotomous variable), age (continues variable), marital status (categorical variable), education (categorical variable), work and living situation (categorical variables). Please refer to Appendix B, Question F1 to F6, for the demographic questions. The demographic measures are very valuable as they allowed for a comparison between the study sample and the national population, to ensure that the sample was representative of the population. In addition, demographic variables are known to be associated with perception and attitudes of participants (Tsui & O'Reilly III, 1989). Thus, due to their possible effect, such variables are important to consider when exploring the outcome of interest. For example, according to the *Defence Attribution Theory* males and female are expected to attribute blame differently, based on their personal relevance with the situation (Shaver, 1970). Therefore, demographic characteristics of participants are important to measure as they may moderate the relationship between the dependent variable (blame attributed to Lena) and the independent variable (inebriation level of Lena and Olof).

Control variables. To explore the study's objectives and achieve valid results, there were few variables that were anticipated to effect the association between the dependent and the independent variable and thus the study was prepared to control for. To determine whether we

needed to control for a particular variable, a preliminary analysis was conducted to test if a variable affected the relationship between the independent variable (inebriation level of Lena and Olof) and the outcome of interest (blame attributed to Lena). This procedure is described in more detail in the analysis plan.

Possible variables that were anticipated to effect the association between the dependent and the independent variable with the accompanying explanations are as follow:

- Participant's sex (Appendix B, Question F1) – it was anticipated that female compared to male participants may differ significantly on how they perceive the date-rape scenario. It may be that female respondents relate more to Lena and hence blame her less for the incident.
- Participant's age (Appendix B, Question F2) – it was anticipated that older participants, compared to younger participants, may blame Lena more as they may think that she should have considered the consequences of her alcohol consumption.
- The frequency of drinking alcohol beverages in the past 12 months (Appendix B, Question A2) – it was anticipated that participants who drink more often, regardless if they become drunk, may perceive Lena as less to blame, however this might also depend on the sex of the respondent.
- The frequency of being drunk in the past 12 months (Appendix B, Question A7a) – it was anticipated that participants who get drunk more frequency may perceive Lena as less to blame, however this may also depend on the sex of the respondent.

In addition to the above variables, it was also expected that we may need to control for participant's alcohol related expectancies and attitudes addressed in Sections C and D of the questionnaire (Appendix B). A factor analysis with a varimax rotation was conducted using SAS to reduce the numerous questions, referring to participant's alcohol related expectancies and attitudes, to a small number of concepts known as *factors* (Cody & Smith, 2006; SAS Institute, 2006). The following factors related to participant's *attitudes* were extracted:

- people are responsible for their own actions
- people are in control of their behaviour
- alcohol lessens control
- alcohol provides a "time-out"
- alcohol changes the meaning of one's actions
- alcohol intoxication is fun

Other factors addressing participant's alcohol-related *expectancies* were also identified as follow:

- alcohol makes people more sexual
- alcohol makes men more aggressive
- alcohol makes women more aggressive

As noted above, it was expected that we may need to control for participant's alcohol related attitudes and expectancies, as such factors may mediate or moderate the association between inebriation level of Lena and Olof, and the degree of blame attributed to the Lena, in the hypothetical date-rape situation. For example, it was predicted that participants that confirm with the attitude that *people are responsible for their own actions* may be more likely to blame Lena more, as they may perceive her to be responsible for placing herself in a risky situation.

Therefore, this factor was anticipated to affect the relationship between the independent variable

and the outcome of interest, thus hindering the validity of the results. Consequently, whether or not the study controlled for the above factors depended on the results from the preliminary analysis.

4.4 Data Analysis

All statistical analyses were performed using SAS 9.1.3 software (SAS Institute, 2006).

4.4.1 Univariate Analyses

Univariate analyses were used to obtain descriptive statistics (i.e., frequency, mean, standard deviation, etc.) for the dependent variables, sociodemographic variables, as well as participants' attitudes and expectancies. This provided information on various characteristics of the sample, which also assisted in exploring the external validity of the study.

4.4.2 Bivariate Analyses

Bivariate analyses were conducted to assess the relationships between the dependent variable (the amount of blame attributed to Lena) and all possible control variables, previously discussed. Depending on the variables examined, t-tests, Analyses of Variance (ANOVA), and Pearson correlations were computed to explore relationships. A t-test was used to assess the difference in the dependent variable (blame attribution) between two groups (i.e., employed participants vs. non-employed). ANOVA was used to explore blame attribution with an independent variable with more than two categories (i.e., between four categories of education). Correlations were

calculated to assist in determining whether two, continuous variables were associated with one another. Variables with a p -value lower than 0.20 were considered for multivariate analysis.

Typically, to examine if stratification by sex is required, a t -test is used to check if there is a statistically significant difference in blame attribution between male and female respondents and a chi-square test would be calculated to determine whether sex is significantly associated with an independent variable of interest. If both tests are significant, further analyses would be stratified by sex. However, in this study the independent variables are randomly manipulated in the vignettes and are not associated with sex. Thus, in order to appropriately examine if stratification by sex is required, sex interaction terms were added to the multivariate analysis to determine if it is necessary to stratify the analyses by sex. The statistical significance of any interaction term ensures that the analyses need to be stratified by sex and thus control for the possible effect of it.

4.4.3 Multivariate Analysis

To address the study objective and the three hypotheses (and their sub-hypotheses) one multivariate factorial ANOVA was conducted. Each hypothesis was supported or rejected depending upon which interaction terms were significant. The paragraphs below indicate the analysis steps that were followed in order to address all hypotheses.

Step 1: Test for sex interaction

A full factorial ANOVA model builds from each of the three manipulated independent variables up to a three-way interaction term with all three independent variables, and includes all two-way

interaction terms as well. In order to examine if stratification by sex was required, the three-way interaction was expanded to include sex in a four-way interaction. The statistical significance of this interaction term or any three-way or two-way interaction terms including sex and alcohol ensures that further analyses must be stratified by sex. In this case, stratification by sex is required; this means that the effect of alcohol on blame is dependent upon whether the participant is male or female. If none of the sex by alcohol interaction terms are significant males and females do not differ on how they view the effect of alcohol on blame in a sexual assault scenario. Therefore, no stratification by sex is required.

Step 2: Modelling the association between alcohol and blame

Modelling began with a full factorial ANOVA (up to and including a three-way interaction term). Based on the statistical significance of the sex and alcohol interaction terms, the analysis was conducted on the full sample or separated for males and females. Refer to Table 2 for all terms included. Backwards elimination was used to remove non-significant (at $p=0.05$) terms starting with the three-way interaction term. If this term was significant then step 2 was complete; the full factorial model was required. If it is was not significant, it was removed and the two-way interaction terms were examined. Non-significant terms were continued to be removed one-by-one with highest order (two-way then one-way) most non-significant terms being removed first, until only variables that were significant at $p \leq 0.05$ remained. All factorial ANOVAs were run with a LSMEANS statement in SAS and t-tests between individual means were tested for significance with a tdiff option and a Bonferoni correction for multiple tests (SAS Institute, 2006).

Table 2
Terms Included in a Full Three-way Factorial ANOVA

Term Number	Terms
1	alcohol
2	initiation
3	severity
4	alcohol*initiation
5	alcohol*severity
6	initiation*severity
7	alcohol*initiation*severity

Step 3: Mediators and moderators of the alcohol and blame association

This step was initiated with a multivariate model which included all sociodemographic factors (excluding sex) and attitudinal factors that were significantly associated with blame at the $p \leq 0.20$ level in the bivariate analyses. Backwards elimination was used to remove variables starting with the least significant first, until all remaining variables were significant at $p \leq 0.05$. The resulting model was combined with the factorial model from step 2 to determine whether controlling for sociodemographic and attitudinal factors altered the relationship between alcohol and blame, as seen in step 2. A final series of backwards eliminations was conducted using the same processes as described earlier, until all remaining variables were significant at $p \leq 0.05$; and this was the final model.

Determining which hypotheses are supported

Only one final model was required to determine whether the hypotheses were supported. Whether they were supported or rejected depended upon which of the full factorial model terms remained significant in the final model.

Hypothesis 1: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, the more she will be blamed.

In order for this hypothesis to be supported, the alcohol term (term number 1 from table 2) was required to be significant; but, the interaction terms including alcohol (terms number 4, 5 and 7) were required to be non-significant. However, this alone was not sufficient to determine whether it is supported. The mean blame level (controlling for all other terms in the ANOVA) was graphed for each inebriation level—when Lena and Olof were both sober, both feeling the effects, and when they were both drunk. The plot line was expected to be significant, with a positive slope from when they were both sober to when they were both drunk, as illustrated in Figure 1 below.

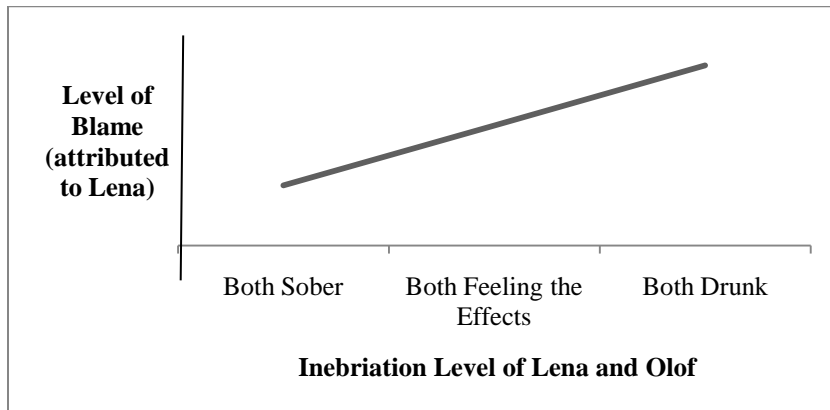


Figure 1. The plot in support of hypothesis 1.

Hypothesis 1a: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, less blame will be attributed to the female if the event is more severe (full date-rape scenario) than if the event is less severe (sexual coercion scenario).

In order for this hypothesis to be supported, the alcohol*severity and/or alcohol*initiation*severity terms (terms number 5 and 7 from table 2) were required to be significant; and it did not matter whether the first order alcohol term (term number 1) was also significant. The mean blame level (controlling for all other terms in the ANOVA) was graphed for each inebriation level—when Lena and Olof were both sober, both feeling the effects, and when they were both drunk. If only the alcohol*severity term was significant then there were expected to be two lines to graph; one where the severity of the event was high (date-rape) and another where the severity of the event was low (sexual coercion). It was necessary for Lena’s line to be significant, with a positive slope from when they were both sober to when they were both drunk. However, the line for high severity was required to be steeper than the one for low severity, and also steeper than the plot line of hypothesis one. Figure 2 below illustrates the plot expected for hypothesis 1a to be supported.

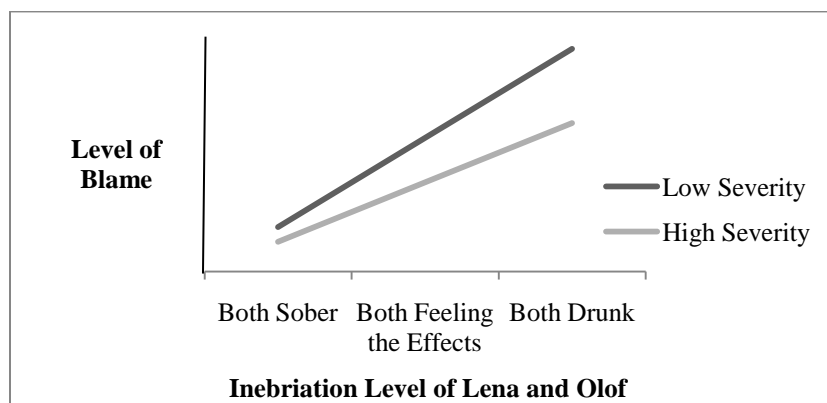


Figure 2. The plot in support of hypothesis 1a.

If the three-way interaction term was significant, for this hypothesis to be supported, the plot for the blame placed on Lena in the high severity situation was expected to be similar to that for the two way interaction, when either Lena or Olof initiated the event.

Hypothesis 1b: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

In order for this hypothesis to be supported, the alcohol*initiation and/or alcohol*initiation*severity terms (terms number 4 and 7 from table 2) were required to be significant; and it did not matter whether the first order alcohol term (term number 1) was also significant. The mean blame level (controlling for all other terms in the ANOVA) was graphed for each inebriation level—when Lena and Olof were both sober, both feeling the effects, and when they were both drunk. If only the alcohol*initiation term was significant then there were expected to be two lines to graph; one where Lena initiated the event and another where Olof initiated the event. It was necessary for Lena's line to be significant, with a positive slope from when they were both sober to when they were both drunk. However, her line was expected to be steeper than his line, and her line was also expected to be steeper than the plot line of hypothesis one. Figure 3 below illustrates the plot expected for hypothesis 1b to be supported.

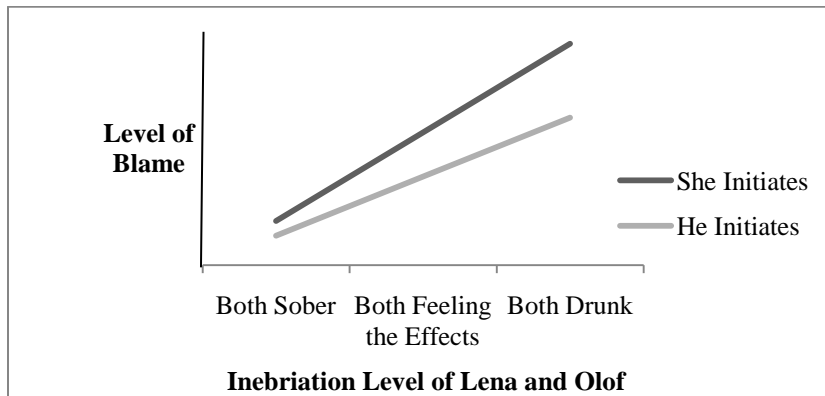


Figure 3. The plot in support of hypothesis 1b.

If the three-way interaction term was significant, for this hypothesis to be supported the plot for the blame placed on Lena was expected to be similar to that for the two way interaction, in either the high severity or low severity scenario.

Hypothesis 2: When the female is very drunk and the male is sober, less blame will be attributed to her, compared to a situation when both of them are very drunk.

In order for this hypothesis to be supported, the alcohol term (term number 1 from table 2) was required to be significant; however, the interaction terms including alcohol (terms number 4, 5 and 7) were required to be non-significant. This alone was not sufficient to determine whether it is supported. The mean blame level (controlling for all other terms in the ANOVA) was graphed for each inebriation level—when Lena and Olof were both drunk and when Lena was drunk and Olof was sober. It was necessary for the plot line to be significant, with a negative slope from

when they were both drunk to when Lena was drunk and Olof was sober. Figure 4 below illustrates the plot expected for hypothesis 2 to be supported.

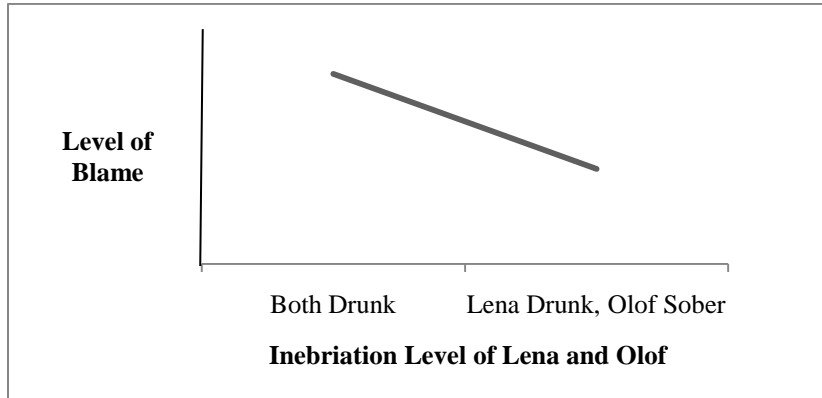


Figure 4. The plot in support of hypothesis 2.

Hypothesis 2a: When the female is very drunk and the male is sober, less blame will be attributed to the female in the full date-rape scenario compared to the sexual coercion scenario.

In order for this hypothesis to be supported, the alcohol*severity and/or alcohol*initiation*severity terms (terms number 5 and 7 from table 2) were required to be significant; and it did not matter whether the first order alcohol term (term number 1) was also significant. The mean blame level (controlling for all other terms in the ANOVA) was graphed for each inebriation level—when Lena and Olof were both drunk and when Lena was drunk but Olof was sober. If only the alcohol*severity term was significant then there were expected to be two lines to graph; one where the severity of the incident was high (date-rape) and another where the severity was low. It was necessary for Lena’s line to be significant, with a negative slope from when Lena and Olof were both drunk to when Lena was drunk but Olof was sober.

However, the line for high severity was expected to be below the one for low severity, and it was also expected to be steeper than the plot line of hypothesis two. Figure 5 below illustrates the plot expected for hypothesis 2a to be supported.

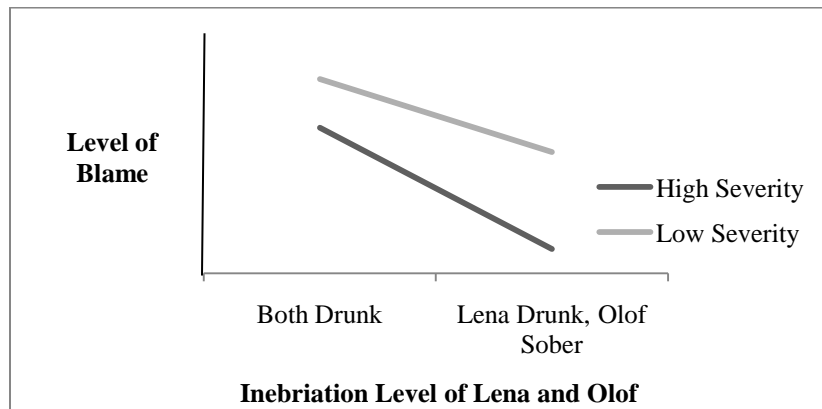


Figure 5. The plot in support of hypothesis 2a.

If the three-way interaction term was significant, for this hypothesis to be supported the plot for the blame placed on Lena in the high severity situation was expected to be similar to that for the two way interaction, when either she or he initiated the event.

Hypothesis 2b: When the female is very drunk and the male is sober, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

In order for this hypothesis to be supported, the alcohol*initiation and/or alcohol*initiation*severity terms (terms number 4 and 7 from table 2) were required to be significant; and it did not matter whether the first order alcohol term (term number 1) was also significant. The mean blame level (controlling for all other terms in the ANOVA) was graphed

for each alcohol level—when Lena and Olof were both drunk and when Lena was drunk but Olof was sober. If only the alcohol*initiation term was significant then there were expected to be two lines to graph; one where Lena initiated the sexual event and another where Olof initiated it. Lena’s plot line was required to be significant, with a negative slope from when they were both drunk to when Lena was drunk but Olof was sober. However, her line was expected to be above his line. Figure 6 below illustrates the plot expected for hypothesis 2b to be supported.

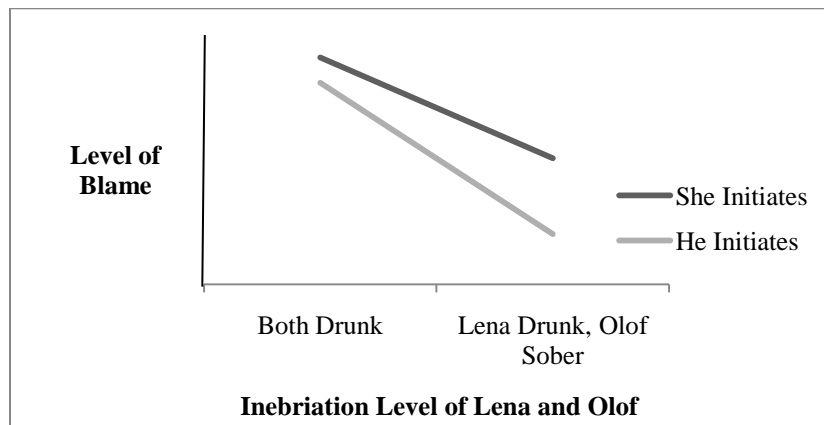


Figure 6. The plot in support of hypothesis 2b.

If the three-way interaction term was significant, for this hypothesis to be supported the plot for the blame placed on Lena was expected to be similar to that for the two way interaction, in either the high severity or low severity scenario.

Hypothesis 3: When the male is very drunk and the female is sober, less blame will be attributed to her, compared to a situation when both of them are very drunk.

In order for this hypothesis to be supported, the alcohol term (term number 1 from table 2) was required to be significant; however, the interaction terms including alcohol (terms number 4, 5 and 7) were required to be non-significant. This alone was not sufficient to determine whether the hypothesis was supported. The mean blame level (controlling for all other terms in the ANOVA) was graphed for each alcohol level—when Lena and Olof were both drunk and when Lena was sober and Olof was drunk. The plot line was expected to be significant, with a negative slope from when they were both drunk to when Lena was sober and Olof was drunk, as illustrated in Figure 7 below.

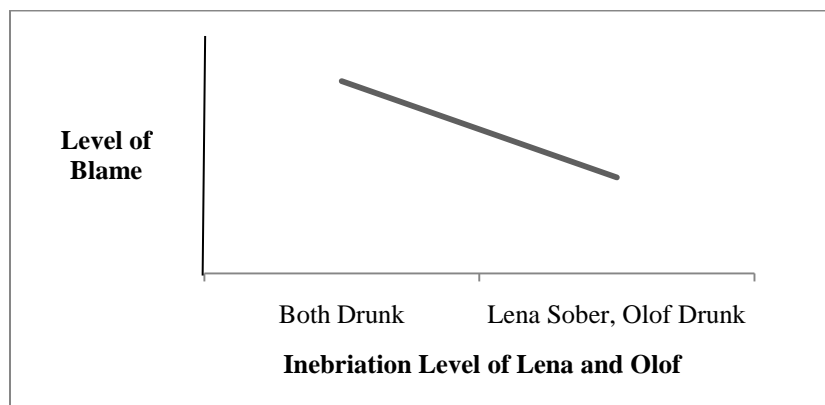


Figure 7. The plot in support of hypothesis 3.

Hypothesis 3a: When the male is very drunk and the female is sober, less blame will be attributed to the female in the full date-rape scenario compared to the sexual coercion scenario.

In order for this hypothesis to be supported, the alcohol*severity and/or alcohol*initiation*severity terms (terms number 5 and 7 from table 2) were required to be

significant; and it did not matter whether the first order alcohol term (term number 1) was also significant. The mean blame level (controlling for all other terms in the ANOVA) was graphed for each alcohol level—when Lena and Olof were both drunk and when Lena was sober but Olof was drunk. If only the alcohol*severity term was significant then there were expected to be two lines to graph; one where the severity of the incident was high (date-rape) and another where the severity was low. It was necessary for Lena’s plot line to be significant; with a negative slope from when Lena and Olof were both drunk to when Lena was sober but Olof was drunk. However, the line for high severity was required to be below the one for low severity, and also steeper than the plot line of hypothesis three. Figure 8 below illustrates the plot expected for hypothesis 3a to be supported.

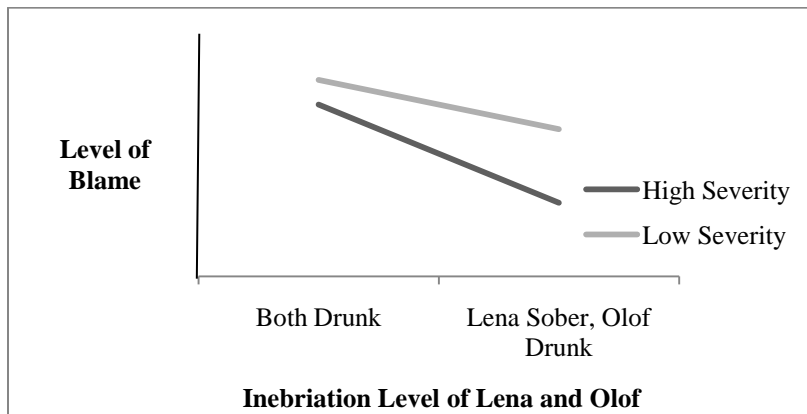


Figure 8. The plot in support of hypothesis 3a.

If the three-way interaction term was significant, for this hypothesis to be supported the plot for the blame placed on Lena in the high severity situation was expected to be similar to that for the two way interaction, when either she or he initiated the event.

Hypothesis 3b: When the male is very drunk and the female is sober, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

In order for this hypothesis to be supported, the alcohol*initiation and/or alcohol*initiation*severity terms (terms number 4 and 7 from table 2) were required to be significant; and did not matter whether the first order alcohol term (term number 1) was also significant. The mean blame level (controlling for all other terms in the ANOVA) was graphed for each alcohol level—when Lena and Olof were both drunk and when Lena was sober but Olof was drunk. If only the alcohol*initiation term was significant then there were expected to be two lines to graph; one where Lena initiated the event and another where Olof initiated it. Lena's plot line was required to be significant, with a negative slope from when they were both drunk to when Lena was sober but Olof was drunk. However, her line was expected to be above his line. Figure 9 below illustrates the plot expected for hypothesis 3b to be supported.

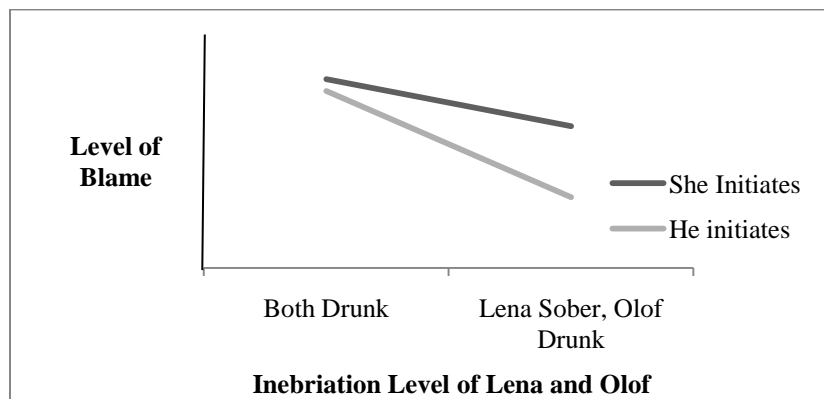


Figure 9. The plot in support of hypothesis 3b.

If the three-way interaction term was significant, for this hypothesis to be supported the plot for the blame placed on Lena was required to be similar to that for the two way interaction, in either the high severity or low severity scenario.

4.5 Ethics

4.5.1 Direct Risks to Participants

The participants experienced minimal direct risks when originally completing the questionnaire. The questions in response to the date-rape vignette may have resulted in some discomfort because of the sexual and violent nature of the topic discussed. However, to minimize the participants' discomfort, interviewers assured them at the beginning of the survey that their participation was voluntary and that they could refuse any questions that they did not feel comfortable answering. Furthermore, participants were provided with a toll free telephone number for a helpline and counselling. They were also informed that all results would be anonymous and confidential. There was no further direct risk to participants as a result of the secondary data analysis.

4.5.2 Direct Benefits to Participants

The primary direct benefit to participants was the increased awareness about potential negative consequences of alcohol intoxication. Through their participation in the study, participants had the opportunity to gain a better understanding of how some decisions, such as the decision to drink, could have life altering consequences. The increased awareness may have resulted in behaviour change, thus minimizing future risk of exposure to negative consequences of alcohol

intoxication. Other benefits included the opportunity to express their opinion. There were no further direct benefits to participants as a result of this secondary data analysis.

4.5.3 Indirect Risks to Participants

There were no indirect risks to participants in the original study. Similarly, the secondary analysis of the data had no indirect risks to participants.

4.5.4 Indirect Benefits to Participants

An indirect benefit to participants was the opportunity to play a role in research and contribute to new knowledge. The secondary analysis of data has led to a better understanding of how alcohol relates to victim blaming and could potentially lead to reconsideration of programs and policies that aim to support victims of sexual assault.

5. Results

5.1 Description of the Study Sample

The study sample was comprised of 1004 participants, of whom 519 were female and 485 were male. The following sections provide information on the demographic characteristics, drinking characteristics, marijuana use and the attitudes and expectancies of the study sample. As previously explained, the sample was weighted by age and household, in order to ensure that it was representative of the age distribution in the national population, and to account for the number of individuals that met the selection criteria within a household. Thus, it is important to note that the following results are based on the analysis conducted with the weighted sample.

5.1.1 Demographic Characteristics

As illustrated in Table 3, 51.7% of participants were females and 48.3% were males. Participants ranged from 16 to 25 years old, with a mean age of 20.6 (SD=2.9). There was no significant difference between the age distribution of female and male participants ($\chi^2(9, N = 1004) = 12.70, p = 0.1336$). With regards to marital status, even after the variable was collapsed, so that the chi-square test would be valid, there was a significant difference between female and male participants, with males more likely than females to be single, and less likely to be cohabiting or married ($\chi^2(1, N = 1004) = 22.5, p < 0.0001$). There was no significant difference in highest level of education completed between female and male participants ($\chi^2(3, N = 1004) = 6.47, p = 0.0907$). Just over 36% of participants reported that their highest level of education completed was less than high school, 34.1% completed high school, 22.1% completed vocational school and 7.3% completed college/university. Pertaining to the work situation, after the variable was

collapsed to ensure the validity of the chi-square test, there was a significant difference between females and males, with males more likely than females to be employed full- or part-time, and females were more likely than males to both study and work ($\chi^2(3, N = 1004) = 8.76, p = 0.0327$). There was no significant difference between females and males regarding parents county of birth ($\chi^2(2, N = 1004) = 5.58, p = 0.0615$); 82.2 % percent of participants had both parents born in Sweden, 10.2% had one of the parents born in Sweden and 7.5% had neither one of the parents born in Sweden. There was no significant sex difference regarding mother's religion ($\chi^2(7, N = 1004) = 7.26, p = 0.4028$); 84.9% of participants had mothers belonging to the Church of Sweden. For more detailed information on demographic characteristics, please refer to Table 3.

Table 3
Demographic Characteristics of the Weighted Study Sample, and by Sex.

Demographic Characteristic	Study Sample N=1004		Females N=519		Males N=485		p-value ^b (χ^2 , df)	
	n ^a	(%)	n	(%)	n	(%)		
Sex								
Male	485	(48.3)	—	—	—	—	—	
Female	520	(51.7)						
Age								
16	98	(9.9)	55	(10.6)	44	(9.1)	0.1336 (13.70, 9)	
17	97	(9.6)	46	(8.8)	51	(10.5)		
18	98	(9.8)	50	(9.6)	48	(9.9)		
19	98	(9.8)	44	(8.6)	54	(11.1)		
20	102	(10.1)	64	(12.4)	37	(7.7)		
21	100	(9.9)	55	(10.5)	46	(9.4)		
22	97	(9.7)	45	(8.6)	53	(10.8)		
23	101	(10.0)	59	(11.4)	41	(8.5)		
24	104	(10.3)	51	(9.8)	53	(10.8)		
25	109	(10.9)	51	(9.7)	59	(12.1)		
Mean (SD)	21	(SD=2.9)	21	(SD=2.9)	21	(SD=2.9)		t(df)=0.2433 (18)
Marital Status								
Single	754	(75.2)	358	(69.0)	396	(81.8)		<0.0001 ^c (26.58, 4)
Cohabiting	221	(22.1)	141	(27.1)	81	(16.7)		
Married	25	(2.5)	19	(3.7)	6	(1.2)		
Divorced	1	(0.1)	1	(0.2)	0	(0.0)		
Other	1	(0.1)	0	(0.0)	1	(0.3)		
Missing	1							
Education (highest level)								
< High school	367	(36.5)	179	(34.4)	188	(38.8)	0.0907 (6.47, 3)	
High school	342	(34.1)	192	(36.9)	150	(31.0)		

Table 3*Demographic Characteristics of the Weighted Study Sample, and by Sex. (Continued)*

Demographic Characteristic	Study Sample N=1004		Females N=519		Males N=485		<i>p</i> -value ^b (χ^2 , df)
	n ^a	(%)	n	(%)	n	(%)	
Vocational school	222	(22.1)	106	(20.5)	116	(23.8)	
College/University	73	(7.3)	42	(8.2)	31	(6.4)	
Work Situation							
Employed	487	(48.6)	243	(46.9)	245	(50.4)	<0.0001 ^d (34.99, 8)
Full-time (35+ hours)	333	(33.2)	153	(29.5)	180	(37.1)	
Part-time (<35 hours)	155	(15.4)	90	(17.4)	65	(13.3)	
Unemployed	59	(5.9)	32	(6.1)	28	(5.7)	
Not in Work Force	456	(45.5)	244	(47.0)	213	(43.9)	
Keeping house	18	(1.7)	17	(3.2)	1	(0.2)	
Disabled	7	(0.7)	7	(1.3)	0	(0.0)	
Student (full-time)	427	(42.6)	219	(42.3)	208	(42.9)	
Military	5	(0.5)	1	(0.2)	4	(0.8)	
Other	-	-	-	-	-	-	
Missing	1						
Parents country of birth							
Neither born in Sweden	76	(7.5)	44	(8.4)	32	(6.6)	0.0615 (5.58, 2)
One born in Sweden	103	(10.2)	63	(12.1)	40	(8.3)	
Both born in Sweden	825	(82.2)	413	(79.5)	412	(85.1)	
Missing	2						
Mother's Religion							
Church of Sweden	852	(84.9)	438	(84.4)	414	(85.5)	0.4028 (7.26, 7)
Free Church	19	(1.9)	7	(1.3)	13	(2.6)	
Catholic	24	(2.4)	14	(2.7)	10	(2.0)	
Other Christian	31	(3.1)	18	(3.4)	14	(2.8)	
Islam	26	(2.6)	18	(3.5)	8	(1.7)	
Judaism	1	(0.1)	0	(0)	1	(0.1)	
Other	19	(1.9)	10	(2.0)	9	(1.8)	
Unknown	32	(3.2)	15	(2.8)	17	(3.5)	

^a Weighted data rounded to integer values, may not add to total N.^b *p*-value reported for Pearson Chi-Square.^c 40% of the cells have expected counts less than 5. Chi-Square may not be a valid test^d 22% of the cells have expected counts less than 5. Chi-Square may not be a valid test.

5.1.2 Drinking Characteristics

When participants were asked if they had ever consumed alcohol, 94.5% said 'yes'. There was no significant difference between female and male respondents (χ^2 (1, $N = 1004$) = 0.10, $p = 0.7575$). However, as illustrated in Table 4, males were significantly more likely than females

to drink frequently. Similarly, males were more likely than females to drink five or more drinks on an occasion, *feel the effects* of alcohol, and *feel very drunk* in the past 12 months.

Table 4
Drinking Characteristics of the Study Sample, and by Sex

Drinking Characteristics	Study Sample N=1004		Females N=519		Males N=485		p-value ^b (χ^2 , df)
	n ^a	(%)	n	(%)	n	(%)	
Ever consumed alcohol							
No	55	(5.5)	30	(5.7)	26	(5.3)	0.7575
Yes	948	(94.5)	490	(94.3)	459	(94.7)	(0.10, 1)
Missing	2						
Frequency of drinking in the past 12 months							
<1/month	303	(30.2)	189	(36.4)	114	(23.6)	<0.0001
1-3/month	518	(51.7)	266	(51.1)	252	(52.3)	(32.64, 2)
Weekly+	181	(18.1)	64	(12.4)	116	(24.1)	
Missing	2						
Frequency of drinking 5 drinks^c or more in the past 12 months							
<1/month	443	(44.2)	289	(55.6)	154	(31.8)	<0.0001
1-3/month	462	(46.0)	200	(38.5)	262	(54.1)	(62.28, 2)
Weekly+	99	(9.8)	31	(5.9)	68	(14.1)	
Frequency of <i>feeling the effects</i> in the past 12 months							
Never	142	(14.1)	89	(17.0)	53	(11.0)	<0.0001
<1/month	329	(32.8)	198	(38.1)	132	(27.2)	(31.48, 3)
1-3/month	443	(44.1)	200	(38.6)	242	(50.0)	
Weekly+	90	(9.0)	32	(6.3)	57	(11.8)	
Frequency of <i>feeling very drunk</i> in the past 12 months							
Never	470	(46.8)	299	(57.5)	171	(35.3)	<0.0001
<1/month	444	(44.2)	199	(38.3)	245	(50.6)	(62.39, 3)
1-3/month	76	(7.6)	19	(3.6)	58	(11.9)	
Weekly+	14	(1.4)	3	(0.6)	11	(2.2)	

^a Weighted data rounded to integer values, may not add to total N.

^b p-value reported for Pearson Chi-Square

^c Standard drink – 1 glass of wine / 1 can of strong beer / 1 shot of spirit / 50cl. bottle of alcoholic cider

There is also a significant difference between female and male respondents regarding the amount of alcohol required for them to *feel the effects* ($t(836) = 12.98, p < 0.0001$), and *feel very drunk* ($t(757) = 12.89, p < 0.0001$). As illustrated in Table 5, male respondents required a higher

number of standard drinks⁴ to feel the effects of alcohol, and to feel very drunk, in comparison to female respondents.

Table 5

The Number of Standard Drinks^a Required for Participants to Feel the Effects and to Feel Very Drunk, for the Total Sample, and by Sex.

Alcohol Condition	Study Sample N=1004		Females N=519		Males N=485		p-value ^b (t, df)
	Mean# Drinks (SD)		Mean# Drinks (SD)		Mean# Drinks (SD)		
feel the effects	3.6 (2.7)		2.6 (2.0)		4.7 (2.9)		<0.0001 (12.98, 836)
feel very drunk	5.5 (6.7)		3.1 (4.4)		8.2 (7.6)		<0.0001 (12.89, 757)

^a Standard drink – 1 glass of wine / 1 can of strong beer / 1 shot of spirit / 50cl. bottle of alcoholic cider

^b p-value reported for t-test

5.1.2.1 Drinking Characteristics of Friends

Females and males were significantly different regarding the proportion of their friends who become very drunk at least one a month ($\chi^2 (1, N = 1004) = 14.83, p < 0.0001$). As illustrated in Table 6, males were more likely than females to have more than half of their friends become very drunk at least once a month.

Table 6

Proportion of Friends who Get Very Drunk, for the Total Sample, and by Sex.

Proportion of friends who get very drunk at least once a month	Study Sample N=1004		Females N=519		Males N=485		p-value ^b (χ^2 , df)
	n ^a	(%)	n	(%)	n	(%)	
Less than half	714	(71.1)	397	(76.4)	317	(65.4)	<0.0001
More than half	290	(28.9)	122	(23.6)	168	(34.6)	(14.83,1)

^a Weighted data rounded to integer values, may not add to total N.

^b p-value reported for Pearson Chi-Square

⁴ Standard drink – 1 glass of wine / 1 can of strong beer / 1 shot of spirit / 50cl. bottle of alcoholic cider

5.1.3 Marijuana Use

Males were significantly more likely than females to have ever used marijuana (χ^2 (1, $N = 1001$) = 14.36, $p = 0.0002$), and to have used marijuana in the past 12 months (χ^2 (1, $N = 1001$) = 6.37, $p = 0.0116$). As shown in Table 7, 19.1% of males, compared to 10.6% of females had used marijuana, and 7.5% of males versus 3.9% of females, had used marijuana in the past 12 months.

Table 7
Marijuana Use for the Total Sample, and by Sex.

Marijuana Use Characteristics	Study Sample N=1001		Females N=519		Males N=481		p-value ^b (χ^2 , df)
	n ^a	(%)	n	(%)	n	(%)	
Ever used marijuana							
No	854	(85.3)	464	(89.4)	389	(80.9)	0.0002
Yes	147	(14.7)	55	(10.6)	92	(19.1)	(14.36, 1)
Missing	3						
Used marijuana in the last 12 months							
No	57	(94.3)	499	(96.1)	448	(92.4)	0.0116
Yes	97	(5.7)	20	(3.9)	37	(7.5)	(6.37, 1)

^a Weighted data rounded to integer values, may not add to total N.

^b p-value reported for Pearson Chi-Square

5.1.3.1 Marijuana Use by Friends

There was no significant difference between female and male respondents regarding the proportion of friends who used marijuana in the past 12 months (χ^2 (1, $N = 1004$) = 0.01, $p = 0.9184$). Overall, as illustrated in Table 8, 96.7% of respondents had less than half and 3.3% had more than half of their friends use marijuana in the past 12 months.

Table 8*Marijuana Use by Friends, for the Total Sample, and by Sex.*

Proportion of friends who used marijuana in the last 12 months	Study Sample N=1004		Females N=519		Males N=485		p-value ^b (χ^2 , df)
	n ^a	(%)	n	(%)	n	(%)	
Less than half	971	(96.7)	503	(96.8)	468	(96.6)	0.9184
More than half	33	(3.3)	17	(3.2)	16	(3.4)	(0.01, 1)

^a Weighted data rounded to integer values, may not add to total N.^b p-value reported for Pearson Chi-Square

5.1.4 Attitudes and Expectancies

A factor analysis had previously been conducted to reduce the numerous questions in Sections C and D of the questionnaire (Appendix B), which refer to participant's alcohol-related expectancies and attitudes, to a smaller number of constructs. Table 9 illustrates the respondents' mean scores (where 1= Strongly Disagree, and 4=Strongly Agree) for resulting factors pertaining to alcohol-related expectancies and attitudes. Both females and males strongly agreed that people are responsible for their own actions, agreed that alcohol lessens control, and indicated a neutral view that people are in control of their behaviour. However, males were more likely to indicate that alcohol provides a "time out" from responsibility and that the meaning of one's actions differed under the influence of alcohol compared to being sober. Females were more likely than males to agree that alcohol makes people more sexual. Table 9 provides the mean scores and the corresponding standard deviations for both females and males, for the various factors discussed.

Table 9

Scores for Factors Derived from Alcohol-related Expectancies and Attitudes, for the Total Sample, and by Sex.

Factor(s)	Mean (SD)	Females Mean (SD)	Males Mean (SD)	p-value^a (t, df)
People are responsible for their own actions	N=1003 3.8 (0.4)	N=518 3.8 (0.4)	N=485 3.7 (0.4)	0.3207 (-0.99, 973)
People are in control of their behaviour	N=1004 2.7 (0.6)	N=519 2.7 (0.7)	N=485 2.6 (0.6)	0.2136 (-1.24, 1002)
Alcohol lessens control	N=993 3.1 (0.7)	N=514 3.1 (0.6)	N=479 3.05 (0.7)	0.1043 (-1.63, 991)
Alcohol provides a “time-out”	N=1000 2.4 (0.7)	N=516 2.3 (0.7)	N=484 2.5 (0.7)	<0.0001 (6.08, 998)
Alcohol changes the meaning of one’s actions	N=1002 2.3 (0.8)	N=518 2.2 (0.8)	N=484 2.4 (0.8)	0.0009 (3.32, 1000)
Alcohol makes people more sexual	N=996 3.2 (0.5)	N=517 3.3 (0.5)	N=479 3.1 (0.5)	<0.0001 (4.12, 994)

^a p-value reported for t-test

5.2 The Association between Alcohol Consumption and Attribution of Blame to the Female in a Hypothetical Date-rape Scenario

Before we can address the association between the state of inebriation of the female, in a hypothetical date-rape scenario, and the level of blame attributed to her, it is important to explore whether male and female respondents differ on their views regarding the relationship between inebriation and blame. The following section examines the interaction of sex with the three manipulated variables from the vignette. This step is necessary to determine whether the hypotheses can be analysed with one sample of both males and females together, or whether they should be analysed separately for female and male respondents.

5.2.1 Interaction between Sex and Attribution of Blame

As previously explained in *Step 1* of section 4.4.3, in order to appropriately examine if stratification by sex is required, sex was included in a four-way factorial ANOVA, containing the

three manipulated independent variables. Table 10 illustrates all of the terms included in the model and the corresponding p values, testing for statistical significance. As previously noted, if the four way interaction term or any three-way or two-way interaction terms including sex and alcohol is significant, then stratification by sex is required for multivariate analyses. As shown in Table 10, the three-way interaction term between alcohol, severity and sex is significant ($F(39,961)=2.72, p>0.0286$). Thus, illustrating that stratification by sex is required, as the perceived effect of alcohol on blame is dependent upon whether the participant is male or female. Therefore, the following results on the association between alcohol and blame are provided for females and males separately.

Table 10
Terms Included in a Full Four-Way Factorial ANOVA, to Determine if Stratification by Sex is Required (N=1001).

Terms	β^a (SE) ^b	F	p-value ^c
alcohol	177.45 (35.05)	7.13	<.0001
initiation	56.64 (56.64)	9.11	0.0026
severity	418.60 (418.60)	67.29	<.0001
sex	27.19 (27.19)	4.49	0.0344
alcohol*initiation	30.89 (7.72)	1.24	0.2917
alcohol*severity	31.64 (7.91)	1.27	0.2795
alcohol*sex	28.05 (7.01)	1.13	0.3423
initiation*severity	0.64 (0.64)	0.10	0.7478
initiation*sex	0.12 (0.12)	0.02	0.8912
severity*sex	6.69 (6.69)	1.08	0.3001
alcohol*initiation*severity	25.51 (6.38)	1.02	0.3932
alcohol*initiation*sex	38.06 (9.52)	1.53	0.1914
alcohol*severity*sex	67.66 (16.91)	2.72	0.0286
initiation*severity*sex	17.94 (17.94)	2.88	0.0898
alcohol*initiation*severity*sex	44.32 (11.08)	1.78	0.1304
Final Model Statistics	F(df) = 3.95(39,961)		
	p-value < 0.0001		
	R-Square= 0.138		

^a Sum of Squares.

^b Mean Standard Error.

^c p-value reported for MANOVA test.

5.3 The Association between Alcohol and Attribution of Blame by Female Respondents, Unadjusted for Respondents' Individual Characteristics

As described in *Step 2* of section 4.4.3, modelling the association between alcohol and blame begins with a full factorial ANOVA (up-to and including the three-way interaction term between alcohol, initiation and severity). Then, backwards elimination was to be used to remove non-significant (at $p > 0.05$) terms starting with the highest order, most non-significant terms being removed first, one-by-one, until only variables that are significant at $p \leq 0.05$ remain. In this case, as illustrated in Table 11, the three-way interaction term between alcohol, initiation and severity was found to be borderline significant ($F(19,498) = 2.36, p = 0.0521$).

Table 11
Unadjusted Factorial ANOVA Model Predicting Blame Attributed to the Female in a Hypothetical Date-Rape Scenario - Female Participants Only (N=518).

Independent Variables	β (SE)	F value	p-value ^a
alcohol	153.95 (38.49)	5.91	0.0001
initiation	32.24 (32.24)	4.95	0.0265
severity	276.64 (276.64)	42.48	<0.0001
alcohol*initiation	15.55 (3.89)	0.60	0.6651
alcohol*severity	53.20 (13.30)	2.04	0.0873
initiation*severity	13.22 (13.22)	2.03	0.1548
alcohol*initiation*severity	61.59 (15.40)	2.36	0.0521
Final Model Statistics	F(df) = 4.93 (19,498)		
	p-value < 0.0001		
	R-Square= 0.158		

^a p-value reported for MANOVA test.

When individual group comparisons were examined (using LSmeans with a *tdiff* option with a Bonferoni correction for multiple tests), the group comparisons that were found to contribute significantly to the three-way interaction were those relevant to the main hypothesis. For example, groups 1(Olof and Lena sober) and 2 (Olof and Lena feel the effect), and 1 (Olof and

Lena sober) and 5 (Olof and Lena very drunk) were significant; while tangential comparisons 1(Olof and Lena sober) and 3 (Olof drunk, Lena sober), and 2(Olof and Lena feel the effect) and 5 (Olof and Lena very drunk) were not. Thus, the marginally significant full model was retained.

5.4 Respondent Demographic and Attitudinal Factors Associated with Blame Attribution for Female Respondents

Bivariate analyses were conducted to examine the association between blame attribution and possible control variables (sociodemographic, drinking behaviour, attitudes and expectancies). Variables significant at $p \leq 0.20$ were carried forward to the multivariate analysis.

5.4.1 Bivariate Associations between Sociodemographic Characteristics and Blame

Marital status was associated with blame attribution ($t(197) = -1.88$ $p=0.0616$) with respondents who were married or living with a partner attributing a higher level of blame than those who were single or divorced. Living situation in the past 12 months was also associated with the level of blame attributed ($F(7,510)=2.28$, $p=0.0269$) with respondents who lived with a partner or parents attributing a higher level of blame than those who lived alone or lived in a student corridor. In addition, the highest level of education completed by the respondent was another factor influencing the blame attributed ($F(3,514)=2.77$, $p=0.0409$), with respondents who completed college/university attributing a higher level of blame than those who completed high school, vocational school, or less than high school. Variables that were tested and did not meet the criteria for multivariate analysis (at $p \leq 0.20$), were age ($p=0.3190$), work situation ($p=0.2928$) and mother's religion ($p=0.5385$).

5.4.2 Bivariate Associations between Drinking Behaviour Characteristics and Blame

The frequency of drinking five drinks or more on an occasion in the past 12 months was significantly associated with blame ($t(435) = 2.01$ $p=0.0455$); female respondents who drank heavily less than once a month, attributed a higher level of blame than those who drank heavily monthly or more often. Similarly, the frequency of drinking enough to feel very drunk in the past 12 months was also associated with the level of blame attributed ($F(3,514)=2.11$, $p=0.0985$) as female respondents who became drunk more frequently, attributed less blame. In addition, both the mean number of standard drinks to feel the effects ($r(516)= -0.10$, $p=0.0164$), and to feel drunk ($r(516)= -0.08$, $p=0.0675$) were associated with the level of blame attributed; female respondents who required a higher number of drinks to feel the effects and feel drunk, attributed less blame.

Variables that were tested and did not meet the criteria for multivariate analysis (at $p\leq 0.20$), were: ever drank alcohol ($p=0.7305$), frequency of drinking in the past 12 months ($p=0.2915$), frequency of drinking enough to feel the effects of alcohol in the past 12 months ($p=0.2313$), proportion of friends who get very drunk at least once a month ($p=0.9691$), ever used marijuana ($p=0.3956$) and proportion of friends who used marijuana in the past 12 months ($p=0.4193$).

5.4.3 Bivariate Associations between Attitude and Expectancy Factors and Blame

The attitude that ‘people can control their behaviour’ was associated with the level of blame ($t(516) = 1.71$ $p=0.0872$); female respondents who disagreed with the statement attributed a higher level of blame than those who agreed. In addition, the expectancy that ‘alcohol makes

people more sexual' was also associated with the level of blame attributed ($r(514)= 0.06$, $p=0.1552$); female respondents who had this expectancy were more likely to attribute a higher level of blame. Variables that were tested and did not meet the criteria for multivariate analysis (at $p\leq 0.20$), were: the attitudes that people are responsible ($p=0.5957$), alcohol lessons control ($p=0.4466$), alcohol as an excuse for 'time out' ($p=0.2836$) and alcohol changes the meaning of sex ($p=0.6848$).

5.4.4 Multivariate Analyses

The sociodemographic, drinking behaviour, and attitude and expectancy factors associated with the level of blame at $p\leq 0.20$ in the bivariate analyses, were carried forward for the multivariate analysis. Then, backwards elimination was used to remove variables, one-by-one, starting with the least significant first, until all remaining variables were significant at $p\leq 0.05$. Table 12 is the final multivariate model containing all of the demographic, attitudinal, and alcohol consumption variables significant at $p\leq 0.05$.

Table 12
Final ANOVA Model of Demographic, Alcohol Consumption and Attitudinal Variables Predicting Blame attributed to the Female in a Hypothetical Date Rape Scenario – Female Respondents Only (N=516).

Demographic Variables	β (SE)	F value	p-value ^a
living situation, 12 months	118.56 (19.76)	2.73	0.0127
frequency 5+ drinks ^b , 12 months	52.74 (52.74)	7.29	0.0072
expectancy 'alcohol makes people more sexual'	30.88 (30.88)	4.27	0.0393
Final Model Statistics	F(df) = 3.04 (8, 507)		
	p-value = 0.0024		
	R-Square= 0.0459		

^a p-value reported for MANOVA test.

^b Standard drink – 1 glass of wine / 1 can of strong beer / 1 shot of spirit / 50cl. bottle of alcoholic cider

The remaining variables were: living situation in the past 12 months ($F(8,507)=2.73, p= 0.0127$), the frequency of drinking 5 or more drinks in the past 12 months ($F(8,507)=7.29, p= 0.0072$), and the expectancy that ‘alcohol makes people more sexual’ ($F(8,507)=4.27, p= 0.0393$). These variables were then carried forward to the full-factorial model containing the three-way interaction between the independent variables (alcohol, initiation and severity).

5.5 Final Model for Female Respondents

The three-way interaction term between alcohol, initiation and severity was found to be significant ($F(27,488) = 2.48, p=0.0433$). Thus, this model was accepted as the final model illustrating the association between alcohol, initiation and severity, controlling for the female respondents living situation in the last 12 months, their frequency of drinking 5 or more drinks in the past 12 months, and their expectancy that ‘alcohol makes people more sexual’. Table 13 illustrates the steps used to derive the final model.

The association between the amount of alcohol consumed by the female (Lena) and the level of blame attributed to her by female respondent, controlling for respondents’ individual characteristics, is illustrated in the following figures. Figures 10, 11, 12 and 13 illustrate the level of blame attributed within four different alcohol conditions; high severity when she initiated, low severity when she initiated, high severity when he initiated and low severity when he initiated, respectively. Overall, Figure 10 (high severity, she initiated), 11 (low severity, she initiated), and 13 (low severity, he initiated) are similar in shape.

Table 13

Final Factorial ANOVA Model Predicting Blame Attribution to a Female in a Hypothetical Date-Rape Scenario, Adjusting for Individual Characteristics - Female Participants Only (N=516).

Variables	Step 1 <i>Independent Variables Only</i>		Step 2 <i>Individual Characteristics Only</i>		Step 3 <i>Final Model</i>	
	(F-value)	p-value	(F-value)	p-value	(F-value)	p-value
alcohol	(5.73)	0.0002			(4.92)	0.0007
initiation	(5.09)	0.0244			(7.02)	0.0083
severity	(41.65)	<0.0001			(38.20)	<0.0001
alcohol*initiation	(0.57)	0.6881			(0.67)	0.6134
alcohol*severity	(2.01)	0.0919			(1.48)	0.2067
initiation*severity	(2.11)	0.1471			(1.39)	0.2387
alcohol*initiation*severity	(2.36)	0.0525			(2.48)	0.0433
living situation, 12 months			(2.73)	0.0127	(1.68)	0.1233
frequency 5+ drinks ^a , 12 months			(7.29)	0.0072	(8.66)	0.0034
expectancy 'alcohol...more sexual'			(4.27)	0.0393	(4.34)	0.0377
Model Statistics	F(df)	4.85 (19,496)	3.04 (8, 507)		4.23 (27, 488)	
	p-value	<0.0001	0.0027		<0.0001	
	R-square	0.157	0.0459		0.1895	

^a Standard drink – 1 glass of wine / 1 can of strong beer / 1 shot of spirit / 50cl. bottle of alcoholic cider

Unlike Figure 11 (with no statistically significant differences in blame for various inebriation levels), Figures 10 and 13 illustrate a significant increase in the amount of blame attributed to the Lena when she and Olof felt the effects compared to when they were both sober. Similarly, blame is increased when they were both drunk compared to when they were both sober. It is also important to note that of the four figures, the blame placed on Lena is the lowest (ranges from 2.2 to 3.2 out of a possible 10) in the date-rape scenario where he initiated (Figure 12).

Hypothesis 1: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, the more she will be blamed.

This hypothesis cannot be accepted in its entirety because there was a three-way interaction. In the date-rape scenario, when she initiated the event (Figure 10) and in the sexual coercion scenario, when he initiated the event (Figure 13) the blame attributed to the female only significantly increased as both went from being sober to either feeling the effects or feeling drunk. There was no increase in her blame as they progressed from feeling the effects to being drunk. In no other situation was there an increase in blame with increasing inebriation.

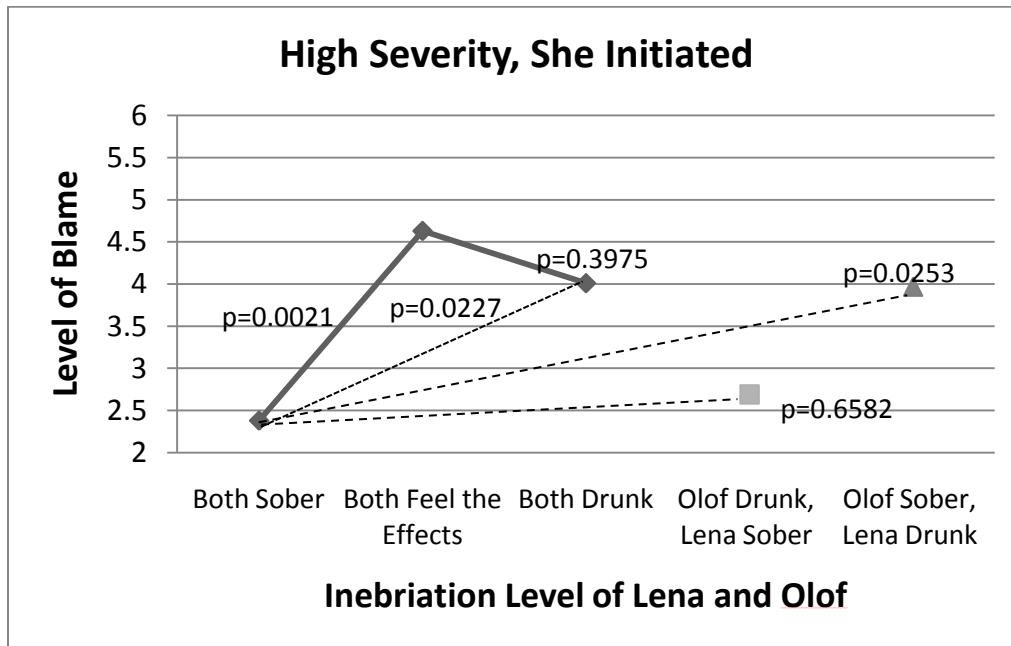


Figure 10. The level of blame attributed to the female in a hypothetical date-rape scenario, if she initiated the sexual event and the severity of the situation was high; controlling for respondents' individual characteristics - female respondents only (N=516).

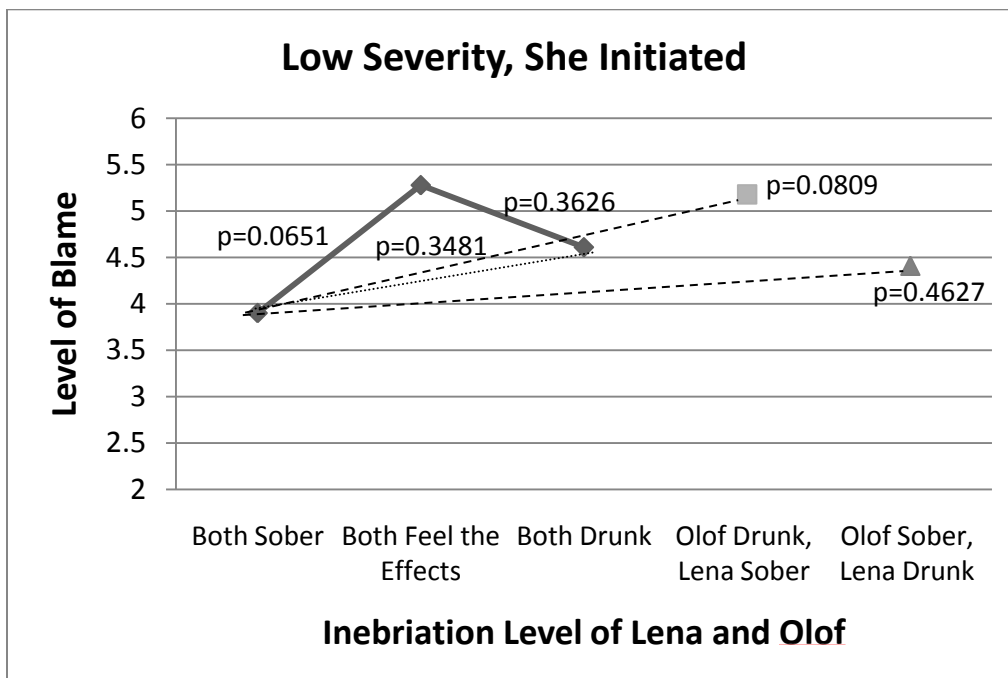


Figure 11. The level of blame attributed to the female in a hypothetical date-rape scenario, if she initiated the sexual event and the severity of the situation was low; controlling for respondents' individual characteristics - female respondents only (N=516).

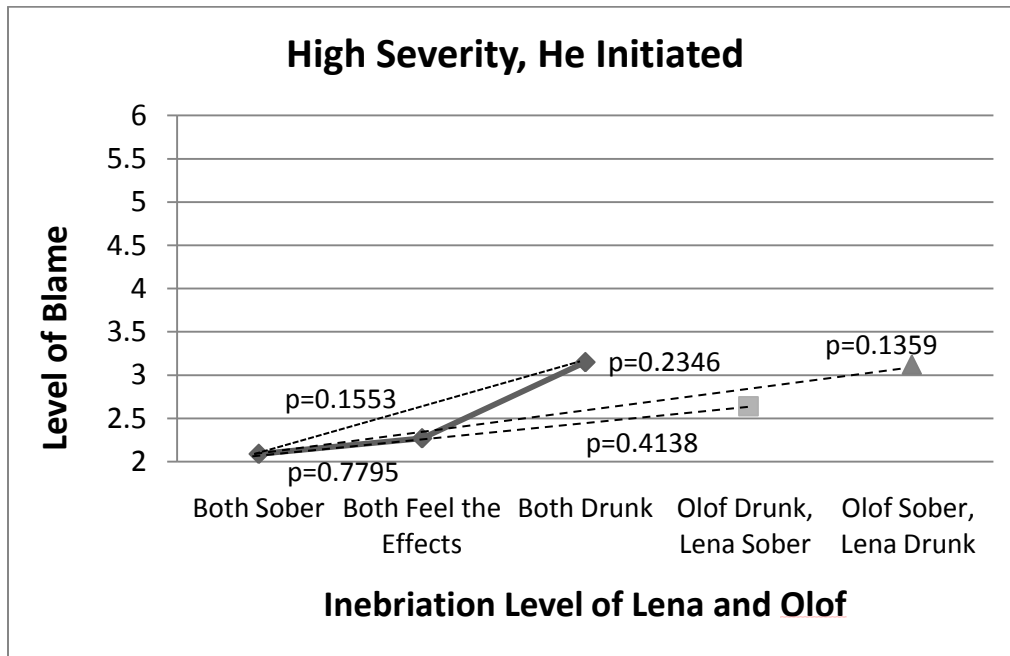


Figure 12. The level of blame attributed to the female in a hypothetical date-rape scenario, if the male initiated the sexual event and the severity of the situation was high; controlling for respondents' individual characteristics - female respondents only (N=516).

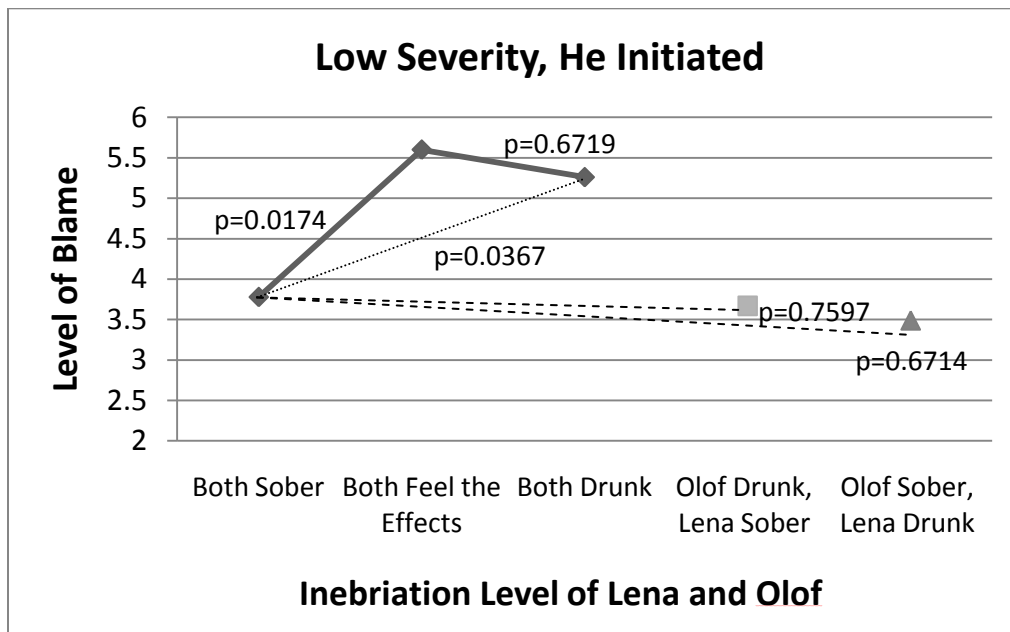


Figure 13. The level of blame attributed to the female in a hypothetical date-rape scenario, if the male initiated the sexual event and the severity of the situation was low; controlling for respondents' individual characteristics - female respondents only (N=516).

The association between the level of inebriation, event severity and the amount of blame placed on Lena **differed based on who initiated the event**. Controlling for event initiation, **when Olof initiated the sexual event** (see Figures 14), across all mutual inebriation levels (both sober, both feel the effects, both drunk) Lena was blamed significantly more in the sexual coercion scenario than the date-rape scenario ($p=0.0113$, $p<0.0001$ and $p=0.0072$, respectively).

However, when **Lena initiated the event** (see Figures 15), the level of blame attributed to her did not significantly differ between the date-rape and the sexual coercion scenario when they both felt the effect and when they were both drunk ($p=0.3852$ and $p=0.4164$). The only significance difference in the amount of blame placed on Lena between the date-rape and the sexual coercion scenario was when both Lena and Olof were sober. In this case, Lena was blamed significantly more in the sexual coercion scenario compared to the date-rape scenario ($p=0.0368$).

Hypothesis 1a: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, less blame will be attributed to the female if the event is more severe (full date-rape scenario) than if the event is less severe (sexual coercion scenario).

This hypothesis cannot be accepted in its entirety because there was a three-way interaction. The hypothesis is only accepted when he initiated the sexual event but not when she initiated it.

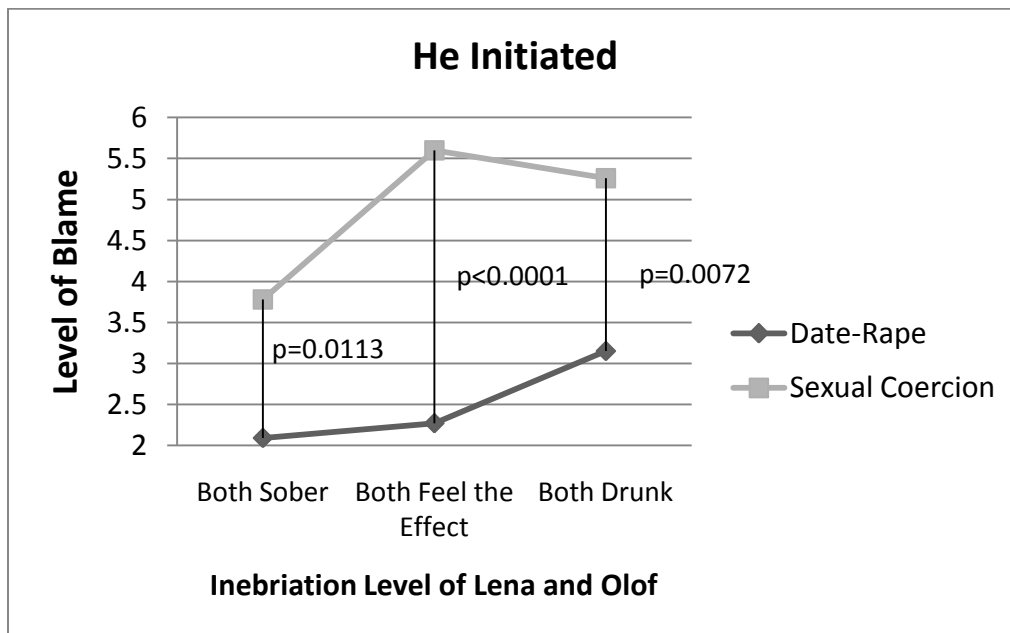


Figure 14. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the inebriation level, when the male initiated sex; controlling for respondents' individual characteristics – female respondents only (N=516).

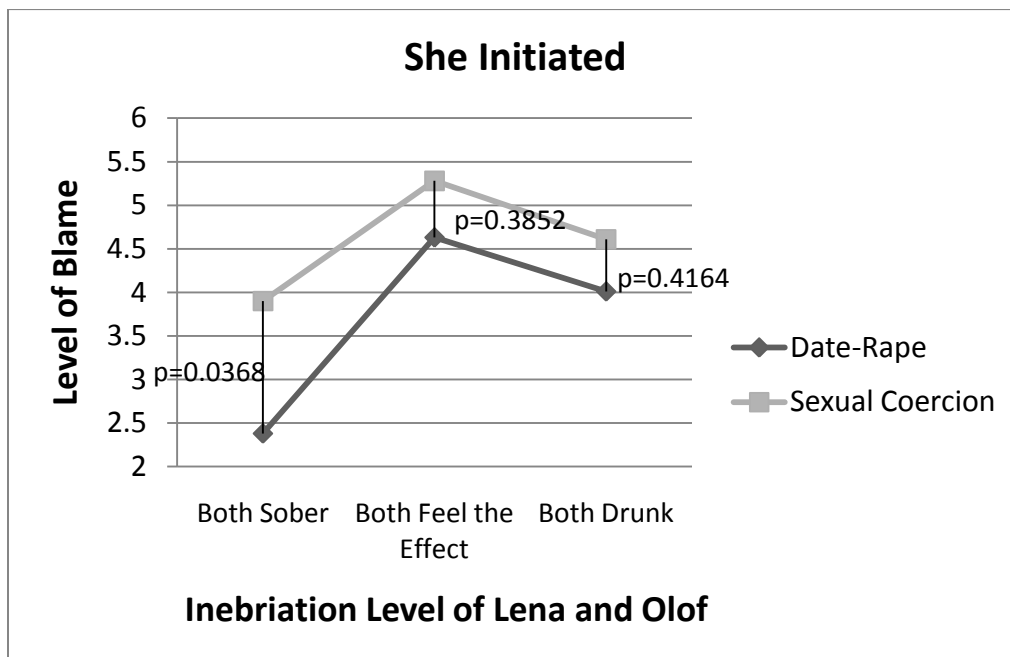


Figure 15. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the inebriation level, when the female initiated sex; controlling for respondents' individual characteristics – female respondents only (N=516).

The association between the level of inebriation, event initiation and the amount of blame placed on Lena differs based on the **severity of the event**. Controlling for event severity, **in the date-rape scenario** (see Figure 16) the amount of blame placed on Lena is significantly higher when she initiated compared to when Olof initiated sex, when both felt the effects of alcohol ($p=0.0009$). However, when they were both sober or drunk, Lena was not blamed more when she initiated as compared to when Olof initiated the sexual event ($p=0.6711$, $p=0.2733$).

In the **sexual coercion scenario** (see Figure 17), as Lena and Olof became inebriated (progressed from being sober, to feeling the effect, to being drunk), Lena's blame did not significantly differ when she initiated as compared when Olof initiated sex.

Hypothesis 1b: As the female and male progress from being sober, to feeling the effects of alcohol, to being very drunk, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

This hypothesis cannot be accepted in its entirety because there was a three-way interaction. The hypothesis is only accepted in the date-rape scenario when both feel the effects of alcohol.

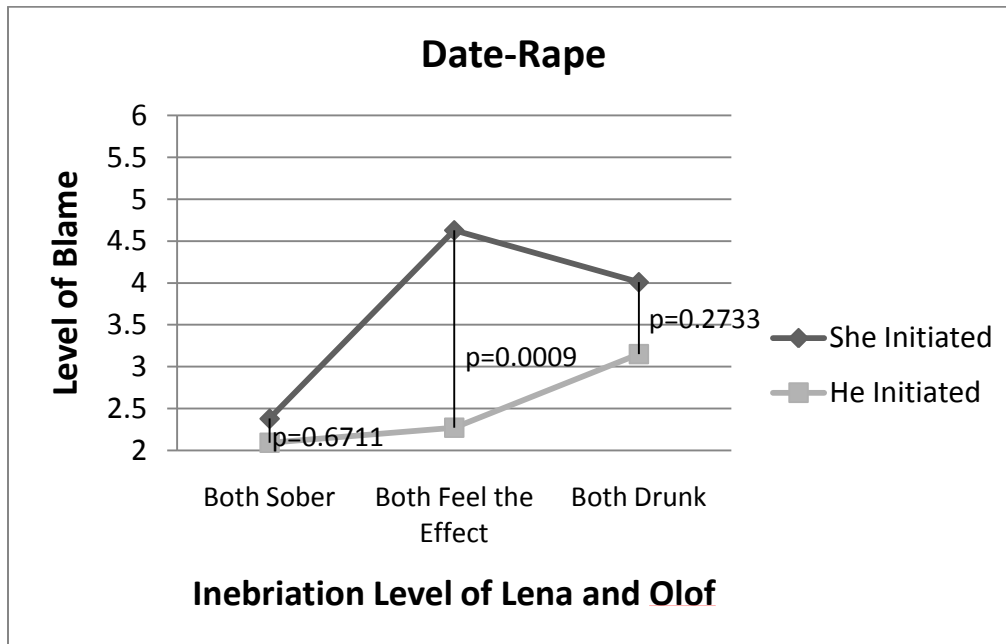


Figure 16. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the inebriation level, when the severity of the situation was high; controlling for respondents' individual characteristics – female respondents only (N=516).

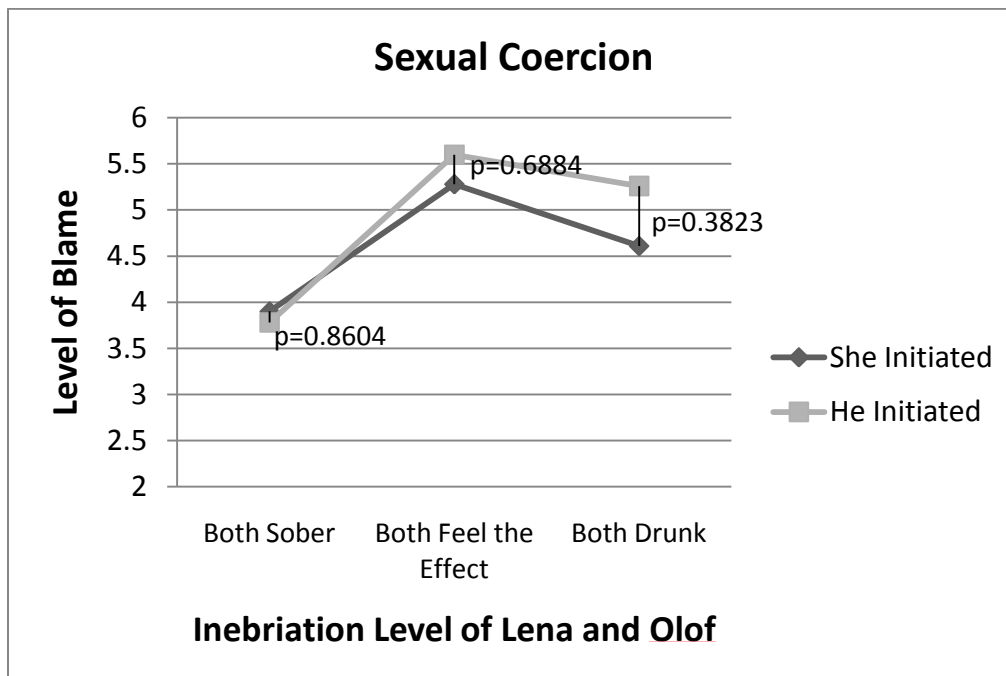


Figure 17. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the inebriation level, when the severity of the situation was low; controlling for respondents' individual characteristics – female respondents only (N=516).

The last set of hypotheses dealt with the situation when both Lena and Olof experienced the same level of inebriation, this section focuses on the level of blame placed on Lena when she was very drunk but Olof was sober. The following figures illustrate the level of blame attributed to Lena, controlling for who initiated the sexual event (Figure 18 and 19) and the severity of the situation (Figure 20 and 21). The relationship between the level of inebriation and the amount of blame attributed to Lena is complex due to the three-way interaction. When only Lena is very drunk (not both), she is only blamed less ($p=0.0136$) in the situation when Olof initiated sex and the event is sexual coercion (see Figure 18). In all other scenarios the change in his level of inebriation (very drunk to sober) does not affect the level of blame attributed to her (see Figures 18 and 19).

Hypothesis 2: When the female is very drunk and the male is sober, less blame will be attributed to her, compared to a situation when both of them are very drunk.

This hypothesis cannot be accepted in its entirety because of the three-way interaction. The hypothesis is only accepted in the sexual coercion scenario when the male initiates sex (see Figure 18).

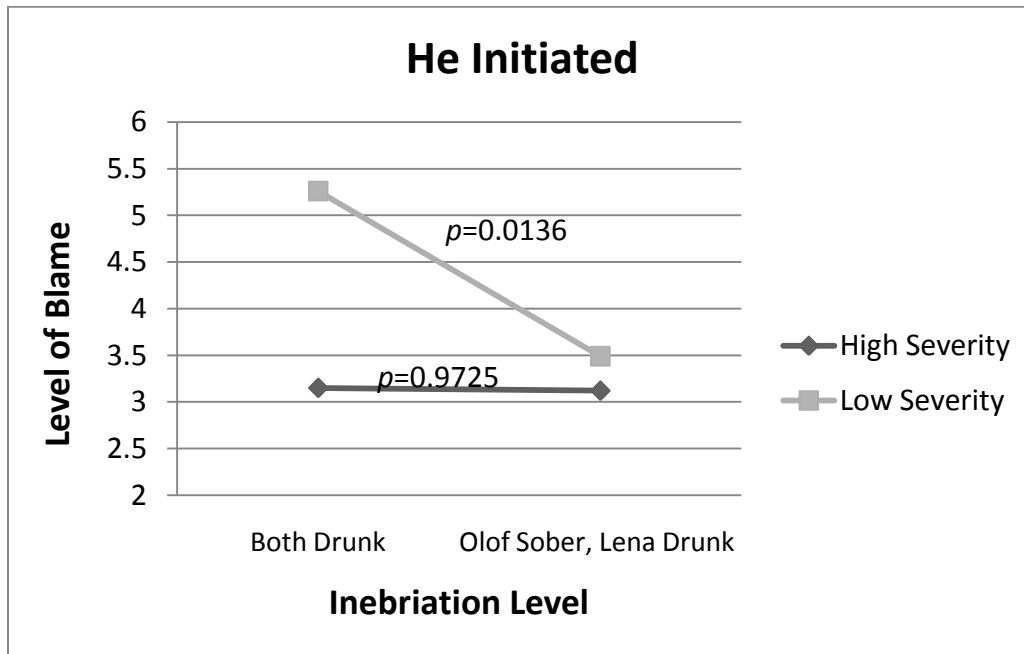


Figure 18. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the level of male’s inebriation, when the male initiated sex; controlling for respondents’ individual characteristics – female respondents only (N=516).

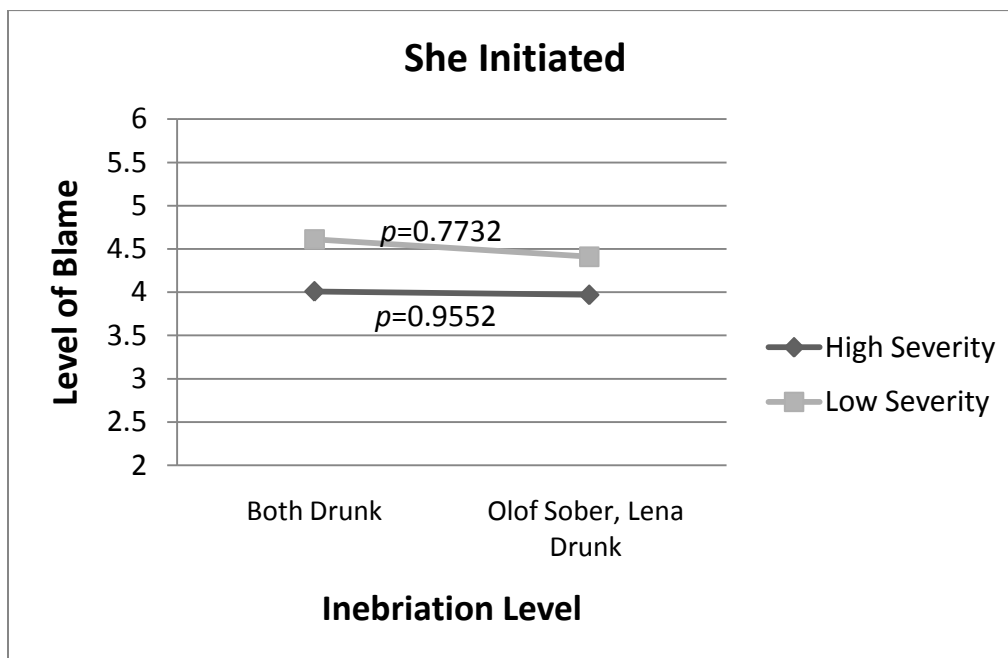


Figure 19. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the level of male’s inebriation, when the female initiated sex; controlling for respondents’ individual characteristics – female respondents only (N=516).

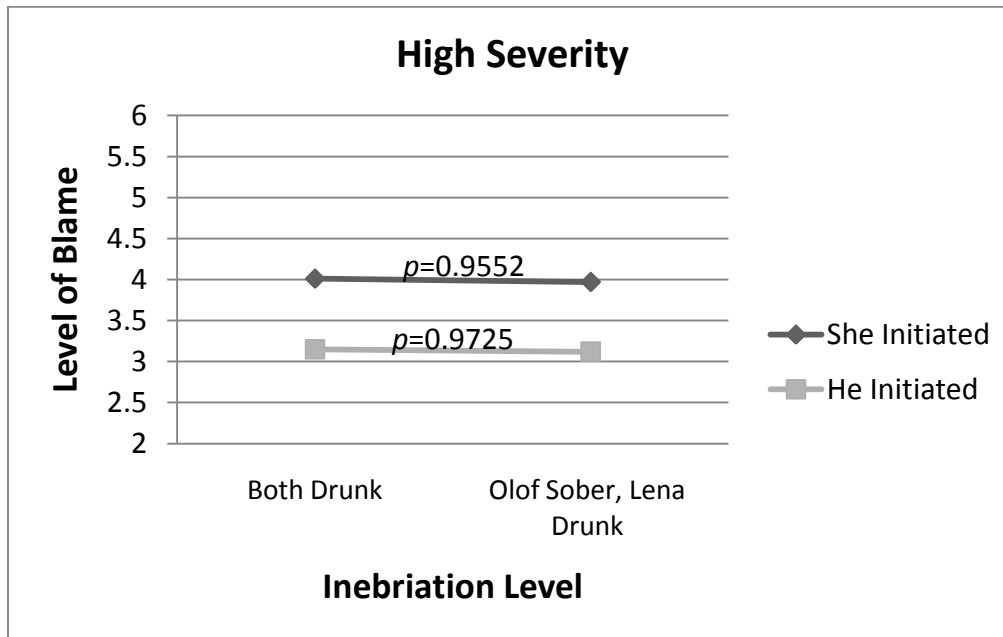


Figure 20. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the level of male's inebriation, when the severity of the situation was high; controlling for respondents' individual characteristics – female respondents only (N=516).

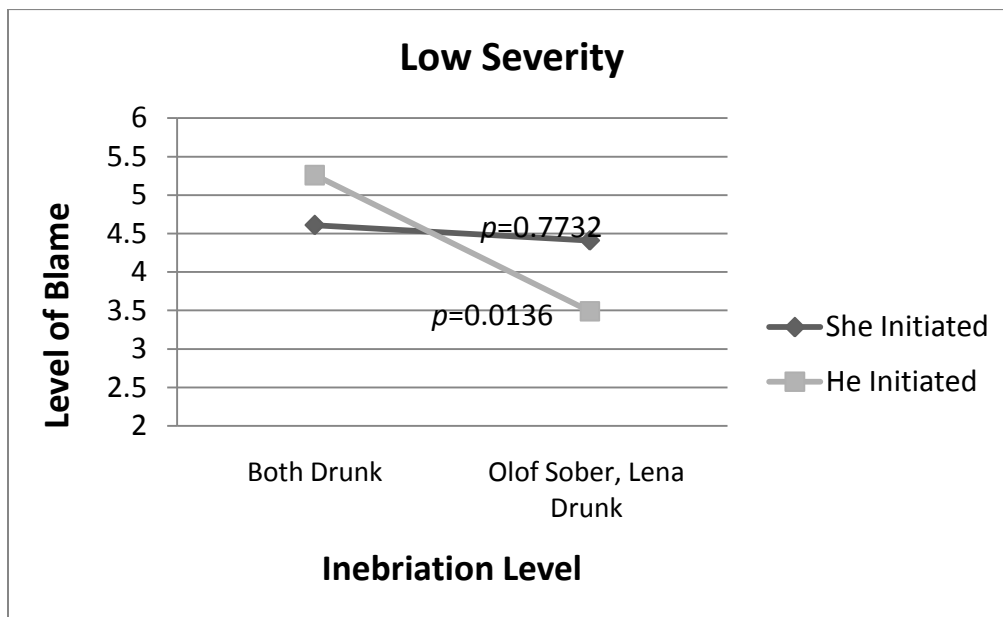


Figure 21. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the level of male's inebriation, when the severity of the situation was low; controlling for respondents' individual characteristics – female respondents only (N=516).

The association between the amount of blame attributed to Lena, the level of inebriation and the severity of the event **differs based on who initiated the sexual event. When Olof initiated sex** and the severity of the situation was low (see Figure 18), Lena was blamed significantly less when he was sober compared to when they were both very drunk ($p=0.0136$). When Olof was sober the blame attributed to Lena was the same in both the date-rape and the sexual coercion scenario (3.12 and 3.49 respectively, $p=0.6122$). Whereas, when they were both drunk, Lena was blamed more in the sexual coercion scenario (5.26) than in the date-rape scenario (3.15) ($p=0.0072$).

When Lena initiated the sexual event (Figure 19), the blame attributed to her was not associated with Olof's level of inebriation, in either the date-rape ($p=0.9552$) or the sexual coercion ($p=0.7732$) scenarios. She was not blamed significantly less in the date-rape scenario (3.97) than the sexual coercion scenario (4.41) when only Olof was sober ($p=0.5047$); nor when they were both drunk (4.01, 4.61 respectively; $p=0.4124$).

Hypothesis 2a: When the female is very drunk and the male is sober, less blame will be attributed to the female in the full date-rape scenario compared to the sexual coercion scenario.

This hypothesis is completely rejected after controlling for who initiated the event. Whether date-rape or sexual coercion, no matter who initiated sex, the amount of blame attributed to the female remained the same. While the blame attributed to her did decrease from the scenario when they were both drunk to when the male was sober in the sexual coercion scenario, it is because she was blamed significantly more when they were both drunk, and her level of blame dropped when he was sober.

The association between the amount of blame attributed to Lena, the level of inebriation and the initiation of the event, **differs based on the severity of the event. When the event was less severe (sexual coercion)**, and Olof initiated sex (see Figure 21), Lena was blamed significantly less when Olof was sober, compared to when they were both drunk ($p=0.0136$). However, when she initiated sex, their level of inebriation was not related to the blame placed on her ($p=0.7732$). Lena was not blamed significantly more when she initiated the event versus when he did, when Olof was sober (4.41, 3.49, respectively, $p=0.1619$).

In the date-rape scenario neither the level of inebriation, nor the person initiating the sexual event ($p=0.4995$), significantly impacted the blame attributed to Lena (see Figure 20).

Hypothesis 2b: When the female is very drunk and the male is sober, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

This hypothesis is rejected after controlling for the severity of the situation. In neither the date-rape nor the sexual coercion scenarios did her blame increase when she initiated the sexual event compared to when he initiated (Figure 20 and 21).

The second set of hypotheses dealt with the situation when Lena was very drunk and Olof was sober, this section focuses on the level of blame placed on Lena in the opposite situation: when Lena was sober but Olof was very drunk. The following figures illustrate the level of blame attributed to her, controlling for who initiated the sexual event (Figure 22 and 23) and the severity of the situation (Figure 24 and 25). The relationship between the level of inebriation and the amount blame attributed to Lena is complex due to the three-way interaction. When Lena was sober and Olof was drunk, Lena was only blamed less ($p=0.0164$) in the situation when he initiated sex and the event was low in severity (see Figure 22). In all other scenarios the change in her level of inebriation (very drunk to sober) did not affect the level of blame attributed to her (see Figures 22 and 23).

Hypothesis 3: When the male is very drunk and the female is sober, less blame will be attributed to her, compared to a situation when both of them are very drunk.

This hypothesis cannot be accepted in its entirety because of the three-way interaction. The hypothesis is only accepted in the sexual coercion scenario when the male initiated sex (see Figure 22).

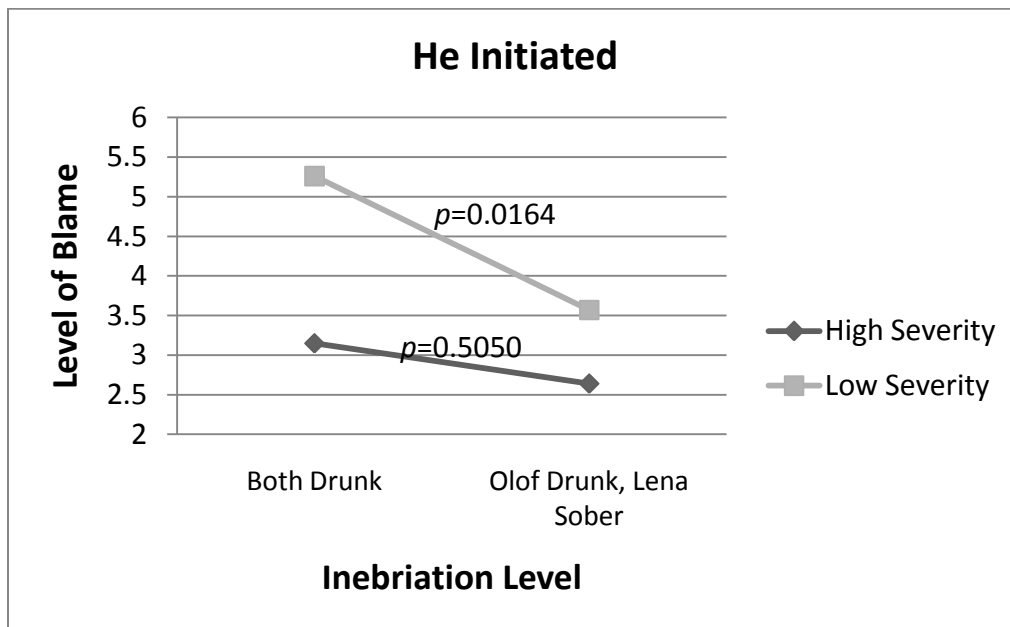


Figure 22. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the level of her inebriation, when the male initiated sex; controlling for respondents' individual characteristics – female respondents only (N=516).

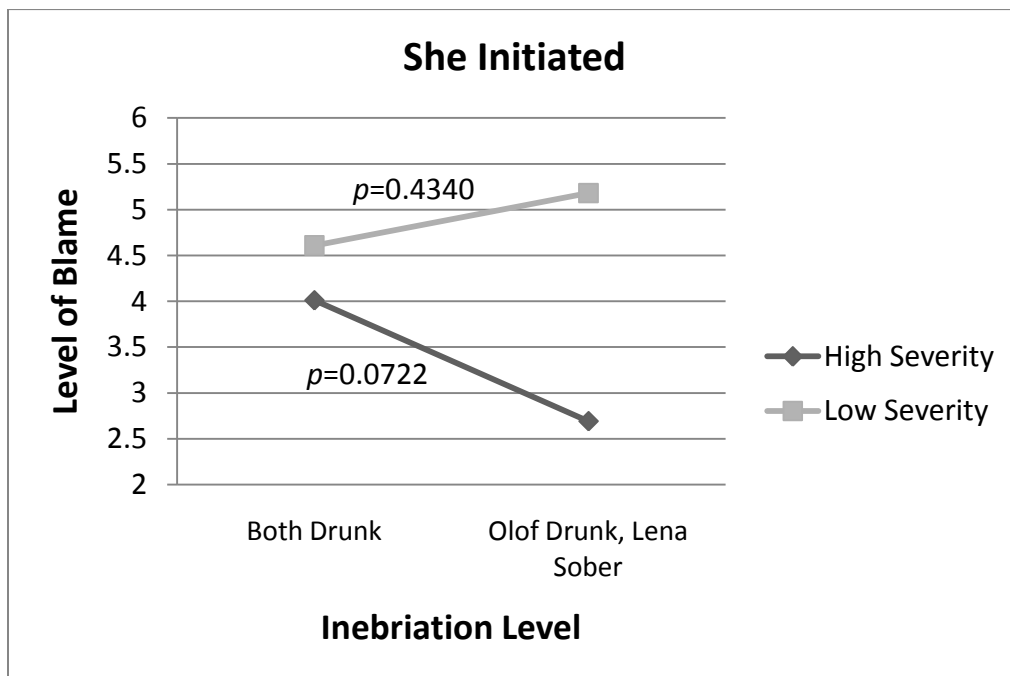


Figure 23. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the level of her inebriation, when the female initiated sex; controlling for respondents' individual characteristics – female respondents only (N=516).

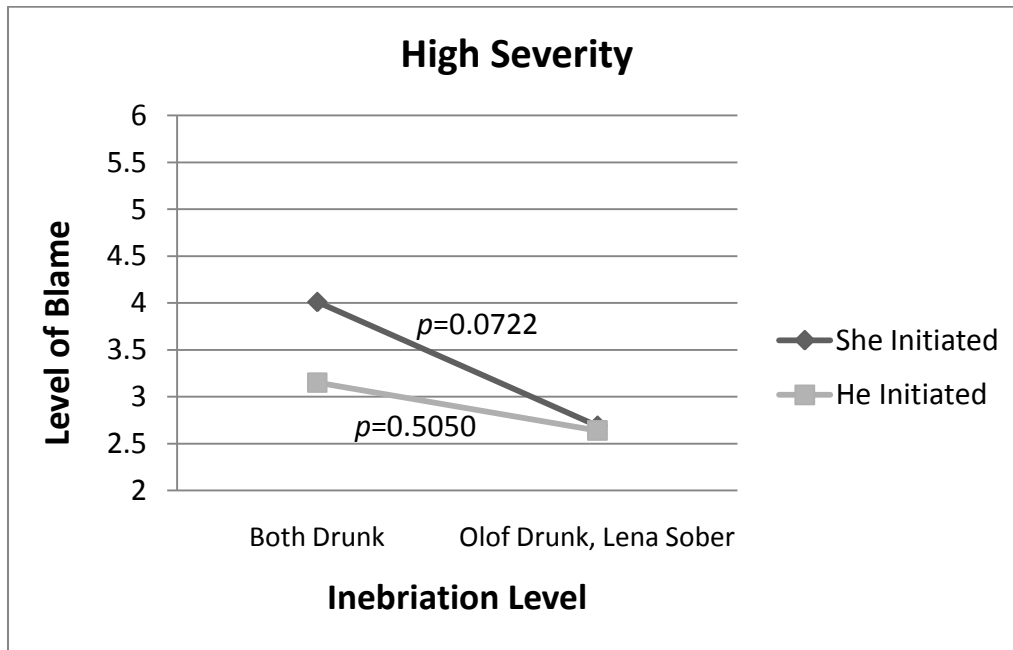


Figure 24. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the level of her inebriation, when the severity of the situation was high; controlling for respondents' individual characteristics – female respondents only (N=516).

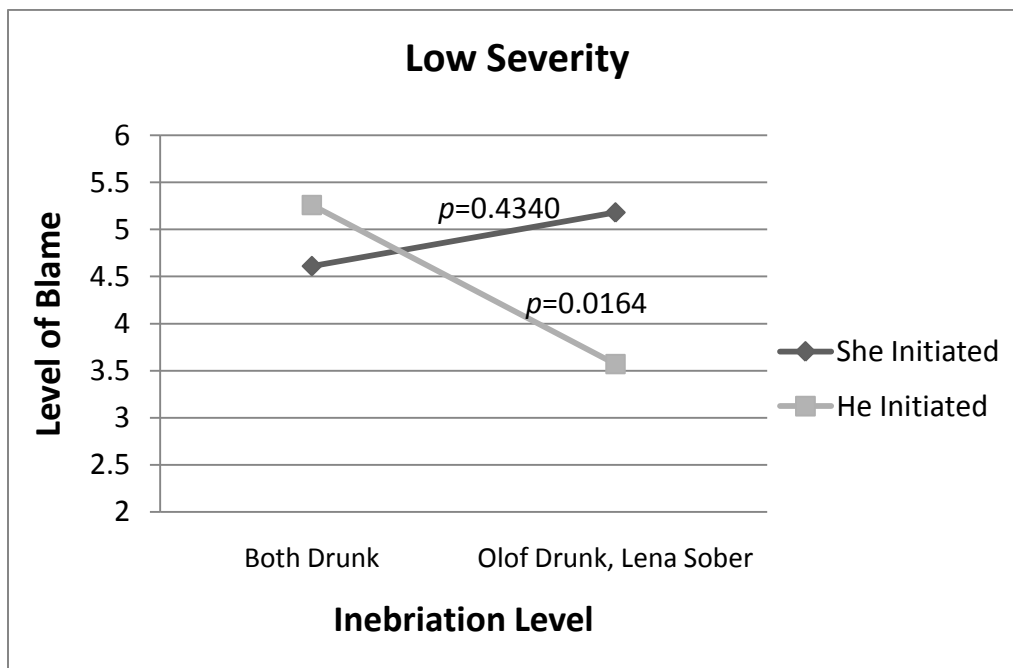


Figure 25. The change in the level of blame attributed to the female in a hypothetical date-rape scenario with the level of her inebriation, when the severity of the situation was low; controlling for respondents' individual characteristics – female respondents only (N=516).

The association between the amount of blame attributed to Lena, the level of inebriation and the severity of the event **differs based on who initiated the sexual event. When Olof initiated sex** (see Figure 22), Lena was blamed significantly less when she was sober compared to when they were both very drunk, in the low severity situation ($p=0.0164$) but not the high ($p=0.5050$).

When Lena was sober the blame attributed to her was not significantly different between the date-rape and the sexual coercion scenarios (2.64, 3.57, respectively; $p=0.1683$). Whereas, when they were both drunk, Lena was blamed more in the sexual coercion scenario (5.26) than in the date-rape scenario (3.15); ($p=0.0072$).

When Lena initiated the event, the blame attributed to her was not significantly associated with her level of inebriation, in either the date-rape ($p=0.0722$) or the sexual coercion ($p=0.4340$) scenarios (see high and low severity lines; Figure 23). However, she was blamed less in the date-rape scenario (level of blame =2.69) than the sexual coercion scenario (5.19), when Lena was sober and Olof was drunk, ($p=0.0007$), but not when they were both drunk ($p=0.4125$).

Hypothesis 3a: When the male is very drunk and the female is sober, less blame will be attributed to the female in the full date-rape scenario compared to the sexual coercion scenario.

This hypothesis cannot be accepted in its entirety because of the three-way interaction. The hypothesis is only accepted when the female initiates the sexual event (see Figure 23).

The association between the amount of blame attributed to Lena, the level of inebriation, and the initiation of the event **differs based on the severity of the event. In the sexual coercion scenario** (see Figure 25) Lena was blamed significantly less when she was sober, compared to when they were both drunk, when he initiated the event ($p=0.0164$) but not when she did ($p=0.4340$). When Lena was sober the blame attributed to her was significantly greater (5.18) when she initiated sex than when he did (3.57; $p=0.0191$). However, when both were drunk, Lena was not blamed significantly more when she initiated the event versus when he did (4.61, 5.25, respectively, $p=0.3823$).

Whereas, **in date-rape scenario** neither the level of inebriation, nor the person initiating the sexual event ($p=0.9399$), significantly impacted the blame attributed to Lena (see Figure 24).

Hypothesis 3b: When the male is very drunk and the female is sober, greater blame will be attributed to the female if she initiated sex than if the male was the sexual initiator.

This hypothesis cannot be accepted in its entirety because of the three-way interaction.

Only in the sexual coercion scenario is her blame significantly greater when she initiates sex compared to when he does (Figure 25).

5.6 The Association between Alcohol and Attribution of Blame by Male Respondents, Unadjusted for Respondents' Individual Characteristics

Backwards elimination was used to model the association between the amount of alcohol consumed by the female and the level of blame attributed to her by male respondents. As illustrated in Table 14, the final model contained only the main effects of alcohol, initiation and severity; none of the two-way or three-way interaction terms were significant. The alcohol term was retained in the model at $p=0.0606$, because one of the pre-determined comparisons between alcohol levels was significant ($p=0.0019$) on post-hoc comparison using the Tukey test of significance.

Table 14

Final Factorial ANOVA Model Predicting Blame Attributed to the Female in a Hypothetical Date-Rape Scenario - Male Participants Only (N=483).

Independent Variables	β (SE)	F value	p-value ^a
alcohol	54.35 (13.59)	2.27	0.0606
initiation	21.95 (21.95)	3.67	0.0560
severity	152.56 (152.56)	25.50	<0.0001
Final Model Statistics	F(df) = 6.16 (6,476)		
	p-value < 0.0001		
	R-Square= 0.072		

^a p-value reported for MANOVA test.

Figure 26 illustrates the association between alcohol and blame, for male respondents, independent of their individual characteristics. There is a significant difference between the level of blame attributed to Lena when both she and Olof were sober compared to when they were both drunk. In this case Lena was blamed more when they were both drunk than when they were both sober ($p=0.0019$). All other comparisons based on the level of inebriation were not significant; this indicates that male respondents did not blame Lena when they were both feeling

the effects ($p=0.2109$), when only she was drunk ($p=0.0582$), or when only Olof was drunk ($p=0.6023$).

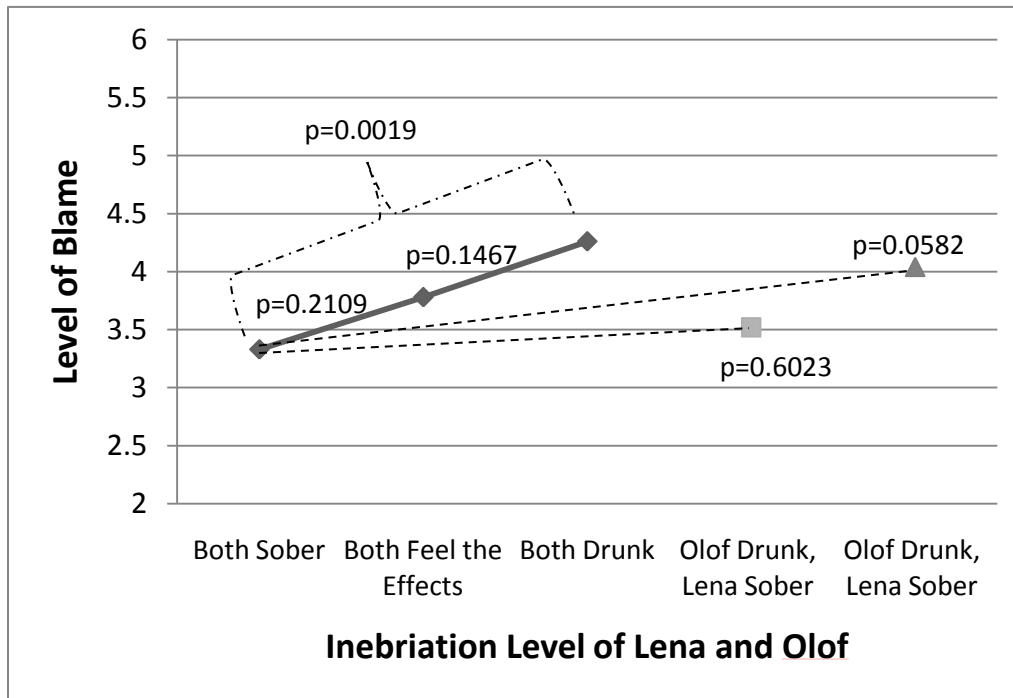


Figure 26. The level of blame attributed to the female in a hypothetical date-rape scenario; unadjusted for respondents' individual characteristics - male respondents only (N=483).

5.7 Respondent Demographic and Attitudinal Factors Associated with Blame Attribution for Males

As with the analysis on female respondents, bivariate analyses were conducted to examine the association between blame attribution and possible control variables. All variables significant at $p \leq 0.20$ level were carried forward to the multivariate analysis.

5.7.1 Bivariate Associations between Sociodemographic Characteristics and Blame

Of the sociodemographic factors, only the age of the respondent was associated with the level of blame attributed to the female victim ($r(481) = -0.06, p = 0.1578$); older male respondents were more likely to attribute a higher level of blame than the younger male respondents. Variables that were tested and did not meet the criteria for multivariate analysis are: marital status ($p = 0.3024$), living situation in the past 12 months ($p = 0.2351$), the highest level of education completed ($p = 0.5045$), current work situation ($p = 0.7121$) and mother's religion ($p = 0.7051$).

5.7.2 Bivariate Associations between Drinking Behaviour and Blame

Frequency of drinking alcoholic beverages in the past 12 months was associated with the level of blame attributed ($F(2,478) = 1.89, p = 0.1520$), with respondents who drank less often attributing a higher level of blame. The frequency of drinking enough to feel very drunk in the past 12 months was also associated with the level of blame attributed ($F(3,479) = 3.46, p = 0.0163$). A statistically significant difference was noted between respondents who never drank enough to feel very drunk in the past 12 months and those who drank enough to feel very drunk, less than once a month. Male respondents who 'never' drank to feel drunk in the past 12 months attributed a higher level of blame than those who did.

The mean number of standard drinks to feel the effects of alcohol ($r(481) = -0.09, p = 0.0482$) and to feel drunk ($r(481) = -0.14, p = 0.0020$) were also associated with the level of blame attributed to the female; male respondents who required a higher number of drinks to feel the effects and to feel drunk attributed a lower level of blame to the female in the date-rape scenario, compared to

respondents who required less alcohol. Variables that were tested and did not meet the criteria for multivariate analysis are: the frequency of drinking more than five drinks in one occasion ($p=0.5240$), the frequency of drinking alcohol in a restaurant, bar or club ($p=0.5691$), the frequency of drinking enough to feel the effects of alcohol ($p=0.3799$), the proportion of friends who get very drunk ($p=0.5173$), ever used marijuana ($p=0.3302$), and proportion of friends who used marijuana ($p=0.7621$).

5.7.3 Bivariate Associations between Attitude and Expectancy Factors and Blame

From the variety of attitude and expectancy factors, only the attitude that ‘alcohol lessons control’ was associated with the level of blame attributed ($r(475)= 0.123, p=0.0047$). Male respondents who agreed that alcohol lessons control were more likely to attribute a higher level of blame to the female in the hypothetical-date rape scenario, compared to those that did not possess the attitude. Variables that were tested and did not meet the criteria for multivariate analysis are: the attitudes that people are responsible for their own behaviour ($p=0.4822$); people are in control ($p=0.3390$); alcohol as an excuse for ‘time-out’ ($p=0.5660$); alcohol changes the meaning of sex ($p=0.5396$) and the expectancy that alcohol makes people more sexual ($p=0.4164$).

5.7.4 Multivariate Analyses

The mean number of standard drinks to feel very drunk ($F(2,474) = 8.59, p= 0.0035$) and the attitude that ‘alcohol lessons control’ ($F(2,474) = 7.10, p= 0.0080$) were the only characteristics associated with the level of blame at $p \leq 0.05$ (Table 15). These variables were then brought

forward to the full-factorial model containing the three-way interaction between the independent variables (alcohol, initiation and severity).

Table 15

Respondents' Individual Characteristics in the Final ANOVA Model Predicting Blame Attribution to a Female in a Hypothetical Date-Rape Scenario – Male Participants Only (N=477).

Variables Remaining in the Final Model	β (SE)	F value	p-value^a
mean # of standard drinks ^b , very drunk	53.11 (53.11)	8.59	0.0035
attitude 'alcohol lessons control'	43.93 (43.93)	7.10	0.0080
Final Model Statistics	F(df) = 8.39 (2, 474)		
	p-value = 0.0003		
	R-Square= 0.034		

^a p-value reported for MANOVA test.

^b Standard drink – 1 glass of wine / 1 can of strong beer / 1 shot of spirit / 50cl. bottle of alcoholic cider

5.8 Final Model for Male Respondents

Starting with the full factorial ANOVA, backwards elimination was used to remove variables one-by-one starting with the highest order, most non-significant term, until all remaining variables were significant at $p \leq 0.05$. The alcohol variable did not significantly contribute to the model and was eliminated ($p=0.0933$). Table 16 illustrates the steps used to derive the final model which consisted of severity ($F(3,473)=24.67, p<0.0001$), the mean number of standard drinks to feel the effects of alcohol ($F(3,473)=8.93, p=0.0030$) and the attitude that 'alcohol lessons control' ($F(3,473)=5.80, p=0.0164$). Figure 27 provides a graphical representation of this relationship.

Table 16

Final Factorial ANOVA Model Predicting Blame Attribution to a Female in a Hypothetical Date-Rape Scenario, Adjusting for Individual Characteristics – Male Participants Only (N=477).

Variables	Step 1 <i>Independent Variables Only</i>		Step 2 <i>Individual Characteristics Only</i>		Step 3 <i>Final Model</i>	
	Variable (F-value)	p-value	Variable (F-value)	p-value	Variable (F-value)	p-value
alcohol initiation severity	(2.10)	0.0795				
	(3.44)	0.0642				
	(26.86)	<0.0001			(24.67)	<0.0001
mean # of standard drinks ^a , very drunk			(8.59)	0.0035	(8.93)	0.0030
attitude ‘alcohol lessons control’			(7.10)	0.0080	(5.80)	0.0164
Model Statistics	F(df)	6.24 (6,470)	8.39 (2, 474)		14.10 (3, 473)	
	p-value	<0.0001	0.0003		<0.0001	
	R-square	0.074	0.034		0.082	

^a Standard drink – 1 glass of wine / 1 can of strong beer / 1 shot of spirit / 50cl. bottle of alcoholic cider

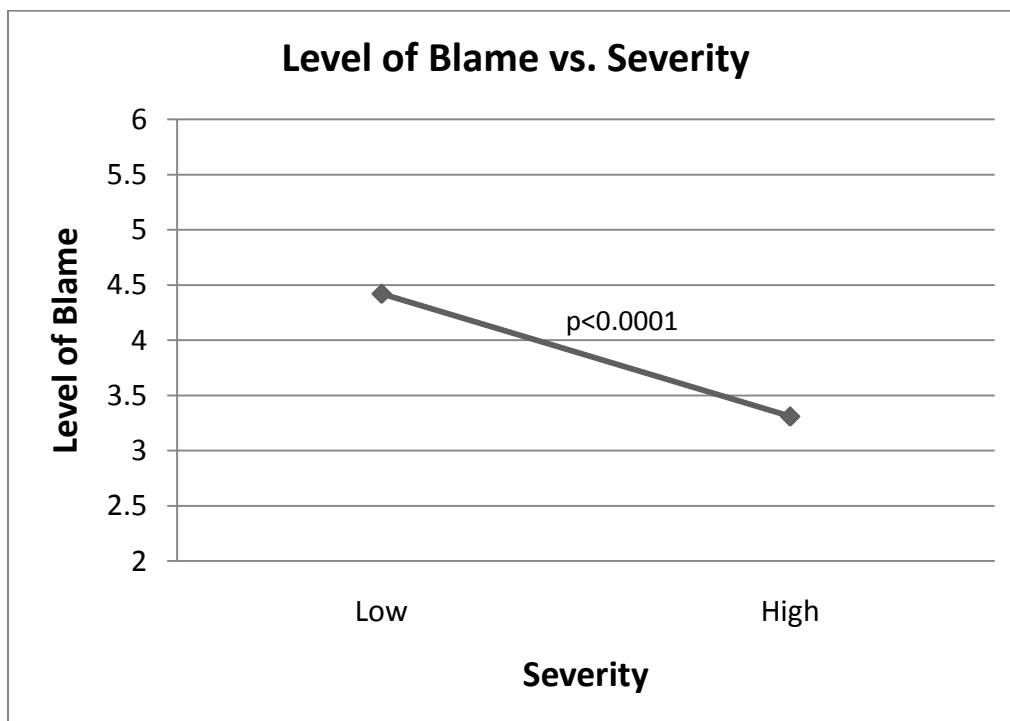


Figure 27. The level of blame attributed to the female in a hypothetical date-rape scenario; controlling for respondent’s individual characteristics – male respondents only (N=483).

As illustrated, the level of blame attributed to Lena, by male respondents, only depended on the severity of the situation. There is a significant difference in the level of blame between the high and the low severity events ($p < 0.0001$). Thus, Lena was blamed significantly less in the date-rape scenario, compared to sexual coercion scenario. Neither her nor his alcohol consumption impacted whether, nor how much, she was blamed for the situation.

6. Discussion

6.1 Differences in Attribution of Blame between Male and Female Respondents

It was expected that female and male respondents might perceive the date-rape scenario differently and thus attribute a different level of blame to the female in the hypothetical date-rape situation. After all, previous studies have consistently illustrated a difference between male and female observers on attribution of blame in relation to sexual assault. Men have been known to perceive the female victim as more blameworthy, when compared to women (Bell, Kuriloff, & Lottes, 1994; George & Martínez, 2002; Harrison, Howerton, Secarea, & Nguyen, 2008; Workman & Freeburg, 1999). In addition, relative to female observers, male observers indirectly attributed more blame to the female victim by indicating that she had done something to seduce the man (Johnson, 1995). Considering that alcohol consumption by women is perceived as a sexual cue, thus increasing the likelihood that women's friendliness may be misperceived as sexual intent, it was very much expected that the amount of blame attributed to the female in the hypothetical date-rape scenario, by **male** respondents, would greatly depend on the amount of alcohol consumed by the female (Abbey & Harnish, 1995). However, this was not the case. The level of blame attributed to the female in the hypothetical date-rape scenario, by male respondents, did not depend on the amount of alcohol consumed by the female, nor on who initiated the sexual event. Instead, the level of blame only depended on the severity of the situation. For female respondents, however, the amount of blame attributed to the female depended on the interaction between the inebriation level of the female and the male, who initiated the sexual event, and the severity of the situation.

Judging by the results from the study, the attribution of blame is complex and multi-dimensional. This unexpected difference between the variables contributing to the attribution of blame by male versus female respondents requires a close examination. The following paragraphs provide possible explanations that may account for the difference.

One of the first explanations that must be considered is associated with the study sample size. Considering that the preliminary analysis illustrated that stratification by sex was required, as the perceived effect of alcohol on blame was dependent upon whether the participant was male or female, further analyses were conducted for female and male respondents separately. The sample size for males was $N=477$ and females $N=516$ which raises the question: was the sample size for males adequate to produce sufficient power for statistical tests? An inadequate sample size limits the power of statistical tests thus leading to a failure in discovering associations that are, in fact, present (Hill & Lewicki, 2007). Considering that for male respondents the alcohol variable was found to be non-significant in the final model ($p=0.0933$) and thus was removed by backward elimination, the p -value at which it was removed is of particular interest. Considering that a value of 0.0933 is very close to 0.05 (the cut-off for variables to be considered significant) it is reasonable to argue that a larger sample size might have resulted in a p -value < 0.05 and thus the alcohol variable might not have been eliminated from the final model. The resulting model, then, would have been in accordance with previous studies illustrating a positive association between the amount of alcohol consumed by a female and the level of blame attributed to her for the sexual assault (Clark & Lewis, 1977; Hammock & Richardson, 1997; Richardson &

Campbell, 1982; Sims, Noel, & Maisto, 2007). Considering that prior to controlling for respondents' individual characteristics the model for male respondents illustrated an increase in the amount blame with increased inebriation, there is no reason to believe that the direction of this association, if power was sufficient, would differ from the hypothesised direction, supported by findings from previous research.

To further explore the differences in attribution of blame between male and female respondents, it is also important to find a plausible explanation for why initiation of the sexual event was associated with attribution of blame for female but not for male respondents. It was expected that whether the female or the male initiated the sexual event would influence the amount of blame attributed to the female. A plausible explanation for why the initiation of the event was not associated with attribution of blame for male respondents could be found in the Swedish youth perspective regarding female sexuality. Johansson (2007) reported that the majority of Swedish young men and women agree that girls should take the sexual initiative as often as boys do. The author further argued that Swedish youth are resisting traditional gender roles (Johansson, 2007). To some degree, such findings may explain the phenomenon why the initiation of the sexual event may not be important in the attribution of blame in a sexual assault situation. However, on the other side, only speculations can be made about why the initiation of the sexual event remained in the final model predicting blame attributed to the female in the hypothetical date-rape scenario, by female respondents. Perhaps, this phenomenon may be associated with the female gender role, which requires females to be gatekeepers for sexual interactions (Adams-Curtis & Forbes, 2004). As such, female respondents might still have been taught from a very

young age that they should not initiate sex; therefore, they may have felt that the female in the scenario was more to blame because she initiated the sexual interaction which led to the date-rape.

The difference between the models of blame attribution by male and female respondents may also be explained by the fact that males and females had a different vantage point from which they attributed blame. Male respondents were asked questions regarding someone in the scenario with the opposite sex, whereas females had a higher relevance to the subject in the scenario, as the subject was a female. As such, they may have perceived the date-rape scenario differently than male respondents, as the scenario was more personal to them. Thus they may have considered all variables with caution. This in turn may have led to the three-way interaction between the inebriation level, initiation of sex and the severity of the event, present in the final model explaining blame attribution by female respondents.

Another possible explanation regarding the difference in blame attribution between male and female respondents may be rooted in the difference in the thought processing between the two genders. Studies have demonstrated that relative to males, females tend to elaborate the specifics of message content (Mayers-Levy & Maheswaran, 1991) and are found to be more sensitive to relevant details when forming judgement (Mayers-Levy & Sternthal, 1991). Therefore, it may be possible that when female respondents were presented with the hypothetical date-rape scenario they were more sensitive to all variables involved. As such, female respondents, as compared to males, may have paid closer attention to the inebriation level of the female and the male who

initiated the sexual event as well as the severity of the situation, before they made the judgement about the amount of blame that should be placed on the female. This in turn may have led to three-way interaction model that was found to explain blame attribution for female respondents. In contrast, due to the difference in their thought process, male respondents may have fixated mostly on the severity of the situation. It might be that the severity of the situation was perceived as the most salient part of the scenario because it was the last piece of information given to the respondents about the date-rape (Wyer & Srull, 1986). Hence, this might have been the most memorable piece of information that stood out for the respondents and thus it influenced blame attribution. Also considering that the study found that male respondents were more likely to indicate that alcohol provided a “time out” (MacAndrew & Edgerton, 1969) and the meaning of one’s actions differed under the influence of alcohol, it may be possible that in such a case male respondents perceived other variables to be less important, and the “time out” applied as long as the situation did not become date-rape.

Last but not least, the difference in blame attribution between male and female respondents may also have been due to the fact that some statistical associations are found to be statistically significant by chance alone, and thus are not true associations (Hill & Lewicki, 2007). In the present study a number of different statistical comparisons were made between numerous conditions and thus it may be possible that the three-way interaction between the three independent variables, for female respondents, was significant by chance. Although, this study focused only on the statistical results that were relevant to the hypotheses created before the analyses, it is important to recognize that numerous comparisons were made and thus some

associations may have been significant by chance. To exclude this explanation for the difference in blame attribution between male and female respondents, the study would have to be replicated and the results compared to the current study.

6.2 Blame Attribution and Alcohol Consumption

Due to the fact that inebriation level of the female and the male in the hypothetical date-rape scenario was found to **not** be associated with the attribution of blame by male respondents, this portion of the discussion is based only on the findings from female respondents. The final model predicting blame attribution for female respondents illustrated a three-way interaction between inebriation level, initiation of the sexual event and the severity of the event. Thus, the hypotheses addressing the association between blame attribution and alcohol consumption (Hypotheses 1, 2 and 3) were proven to be too simplistic to capture this complex phenomenon. As such, the presence of the three-way interaction led the hypotheses to be supported in some conditions and not-supported in others.

Overall, the three hypotheses addressing the association between blame attribution and alcohol consumption (Hypotheses 1, 2 and 3) were only partly supported. Only in the date-rape scenario when the female initiated the event, and in the sexual coercion scenario when the male initiated the event, did the blame attributed to the female significantly increase as **both went from being sober to either feeling the effects or feeling drunk**. In the sexual coercion scenario when the male initiated sex, she was blamed less when **she was very drunk and the male was sober** compared to the scenario when they were both very drunk. This is understandable, as when the

male was sober and the female was drunk, the male was perceived as taking advantage of the female and thus the male was blamed more (Stormo et al., 1997); in turn, less blame was attributed to the female. Again, in the sexual coercion scenario, when the male initiated sex, the female was blamed less when **he was very drunk but she was sober**, compared to when they were both very drunk. This is in accordance with the alcohol myopia theory, as alcohol intoxication impairs cognitive skills, limits the number of cues perceived and hinders higher-order thinking (Steele & Josephs, 1990). As such, the male in the scenario perceived the female's friendliness as a sexual interest and coerced her to have sex, therefore she is blamed less because she was not under the influence of alcohol and she did what she could to stop him, but she was unsuccessful.

These findings may be partly explained by the *Corresponded Inference Theory* which states that the attribution of blame depends on the observer's perception of actor's awareness of the consequences of his/her actions (Jones and Davis, 1965). The preliminary findings on the attitudes and expectancies of female respondents illustrated that female respondents were more likely than male respondents to agree that alcohol makes people more sexual. As such, female respondents may have held the belief that the female in the hypothetical date-rape scenario was aware of the potential negative consequences of the alcohol consumption; but regardless, she placed herself in that situation. This may have led to the increased blame with increased inebriation. The finding that the female was blamed less when she was drunk and the male was sober, compared to when they were both drunk, was in accordance with a previous study (Stormo, Lang, & Stritzke, 1997). However, it is important to note that previous studies have

only observed the effect of inebriation level upon attribution of blame, excluding variables such as the severity of the situation and who initiated the sexual event.

Finally, in accordance with the *Corresponded Inference Theory* (Jones and Davis, 1965), in the sexual coercion scenario when the male initiated sex, the female was blamed less when the male was drunk and she was sober compared to when they were both very drunk. The findings may also be partly supported by the *Just World Theory* (Lerner, 1970) of blame attribution, as in the date-rape (versus sexual coercion), regardless who initiated sex, her blame was not lower when she was sober and he was drunk, compared to when they were both very drunk. According to the *Just World Theory*, individuals search for comfort in the belief that ‘bad things happen to bad people’ (Lerner, 1970). Female respondents might not have wanted to believe that bad things occur randomly, because if they possessed this belief they would have been confronted with the uncomfortable thought that what happened to the female in the scenario may happen to them as well. In this case, because the severity of the situation was high, the female respondents may have found comfort in the belief that ‘bad things happen to bad people’ and the female in the scenario may have been perceived as having done something in her life to deserve what happened to her. Therefore, she was blamed, even though she was sober and he was drunk. This phenomenon may have served as a defence function for female respondents (Finch & Munro, 2007).

6.3 Blame Attribution and the Severity of the Situation

For male respondents, the severity of the situation was the only independent variable that was associated with blame attribution, after adjusting for respondents' individual characteristics. The findings illustrated that the blame attributed to the female in the date-rape scenario significantly decreased as the severity of the situation increased. Thus, the female was blamed significantly less in the date-rape scenario compared to the sexual coercion scenario. The finding is in accordance with a previous study that found that women's degree of physical resistance against the assault is an important variable in attribution of blame (Shotland & Goodstein, 1983).

For female respondents, the severity of the situation interacted with inebriation level and the initiation of the sexual event. As such, the effect of the severity of the situation upon the amount of blame attributed to the female depended on the inebriation level as well as who initiated the sexual event. Thus, the hypotheses addressing the association between blame attribution and severity of the situation (Hypotheses 1a, 2a and 3a) were proven to be too simplistic to capture this complex phenomenon. The presence of the three-way interaction led the hypotheses to be supported in some conditions and not supported in others.

Consequently, two of the three hypotheses addressing the association between blame attribution and the severity of the situation (hypotheses 1a and 3a) were only partly supported, whereas one of the hypotheses (hypothesis 2a) was completely rejected. When the male initiated the sexual event, as the female and male progressed from being sober, to feeling the effects of alcohol, to being very drunk, less blame was attributed to the female if the event was more severe (full date-

rape scenario) than if the event was less severe (sexual coercion scenario). When the female initiated the sexual event, and the male was very drunk but the female was sober, less blame was attributed to her in the full date-rape scenario compared to the sexual coercion scenario.

Although the complexity of the three-way interaction between the independent variables led to the hypothesis being supported in some conditions but not others, the findings are partly supported by past research illustrating that woman's degree of physical resistance against the assault is an important variable in attribution of blame (Shotland & Goodstein, 1983). In the date-rape scenario the female did everything she could to stop the assault by fighting back and yelling for help, but she was unsuccessful. Thus, she was blamed less compared to the sexual coercion scenario when she said she would rather wait but then gave in, as the male was insisted and continued to pressure her to have sex.

6.4 Blame Attribution and the Initiator of the Sexual Event

Due to the fact that initiation of sex in the hypothetical date-rape scenario was found to **not** be associated with the attribution of blame by male respondents, this portion of the discussion is based only on the findings from female respondents. Considering that the final model predicting blame attribution for female respondents illustrated a three-way interaction between the three independent variables, the effect of the initiation upon the amount of blame attributed to the female depended on the inebriation level as well as the severity of the event. Thus, the hypotheses addressing the association between blame attribution and the initiation of the event (Hypotheses 1b, 2b and 3b) were proven to be too simplistic to capture this complex

phenomenon. Once again, the presence of the three-way interaction led the hypotheses to be supported in some conditions and not-supported in others.

Consequently, two of the three hypotheses addressing the association between blame attribution and who initiated sex (hypotheses 1b and 3b) were only partly supported, whereas one of the hypotheses (hypothesis 2b) was completely rejected. As such, in the date-rape scenario when both felt the effects of alcohol greater blame was attributed to the female when she initiated sex compared to when the male initiated it. Also, in the sexual coercion scenario, when the male was very drunk and the female was sober, greater blame was attributed to the female when she initiated sex compared to when the male initiated it. The findings are in accordance with the female gender role, which requires females to serve as gatekeepers for sexual interactions (Adams-Curtis & Forbes, 2004). When the female initiated sex she may have been perceived as promiscuous because she went against her gender role and thus she was blamed more, compared to when the male initiated the sexual interaction. Although none of the blame attribution theories can fully capture this multifaceted association between the initiation of the sexual event and the amount of blame attributed to the female in the hypothetical date-rape scenario, the *Corresponded Inference Theory* (Jones and Davis, 1965) may partly explain why in some conditions the female is blamed more when she initiated sex, as compared to when the male initiated it. It may be that female respondents perceived the female in the scenario as being aware of the consequences of her actions. When she initiated sex, especially considering that alcohol was involved, she was perceived as placing herself in a known dangerous situation, and thus she was blamed more as compared to when he initiated sex.

6.5 Respondent Characteristics Associated with the Level of Blame Attributed to the Female in the Hypothetical Date-Rape Scenario

Respondent characteristics played an important role in the association between blame attribution and the independent variables examined. For female respondents, controlling for such characteristics (demographic variables, drinking behaviour, and attitudes and expectancies) did not alter the association between blame attribution and the independent variables (inebriation level, severity and initiation). However, for male respondents, after the significant characteristics were taken in account, the final model that once included inebriation level, severity and initiation was altered to include only the severity of the situation. The following sections will address respondent characteristics, associated with the level of blame for females and males respectively.

6.5.1 Female Respondents

For female respondents, living situation in the past 12 months, frequency of consuming 5 or more drinks on an occasion in the past 12 months, and the expectancy that alcohol makes people more sexual were associated with the level of blame attributed to the female in the hypothetical date-rape scenario. As expected, respondents' living situation in the past 12 months did influence the level of blame attributed. It may be that female respondents who lived alone or with friends were more likely to relate to the female in the hypothetical date-rape scenario, as they may have been more likely to drink and date, compared to females who lived under the supervision of parents or partner. Those who lived with parents or with a partner may have had a more restrictive lifestyle that condemned excessive drinking, and thus they might not have been able to relate to the very drunk female in the scenario. Hence, they may have been more willing to

attribute a higher level of blame. This is in accordance with the *Defence Attribution Theory* (Shaver, 1970) which states that less blame is attributed when the perceiver has a high personal relevance with the situation.

The frequency of consuming five or more drinks in the past 12 months was another characteristic that was linked with the level of blame attributed to the female in the hypothetical date-rape scenario. It is understandable that female respondents, who drank heavily on frequent basis, attributed a higher level of blame than those who drank less frequently. It is possible that female respondents who drank frequently were able to relate more to the female in the hypothetical date-rape scenario. They may have perceived the date-rape scenario as something that could potentially happen to them. Hence, they blamed the female in the scenario less, because if they had experienced what she experienced, they would not want to be blamed either. This is also in accordance with *Defence Attribution Theory* (Shaver, 1970). According to the theory, the female respondent's goal is to protect her own self-esteem in cases where she identifies with the female in the hypothetical date-rape scenario and can see herself being in a similar situation. As such, she attributes less blame, as blaming the female in the scenario would mean that she too would be blamed in a comparable context.

Female respondents who held the expectation that alcohol makes people more sexual, attributed a higher level of blame to the female in the hypothetical date-rape scenario, than those who did not have this expectation. It may be that respondents with this expectation may have had the view that the female in the scenario should have known better than to get herself in that situation,

as after all, alcohol makes people more sexual and thus it should have been known that when one consumes alcohol, such things may happen to them. This is in accordance with *Corresponded Inference Theory* (Jones and Davis, 1965) which states that the attribution of blame depends on the observer's perception of a victim's awareness of the consequences of alcohol consumption. The respondents may have held the belief that the female in the date-rape scenario was aware of the potential negative consequences of her actions, but regardless, she consumed alcohol and placed herself in a risky situation; therefore, a higher level of blame was attributed to her.

6.5.2 Male Respondents

For male respondents, the mean number of standard drinks to feel very drunk and the attitude that alcohol lessens control were associated with the level of blame attributed to the female in the hypothetical date-rape scenario. Male respondents, who required a higher number of drinks to feel very drunk, attributed a lower level of blame to the female. It may be possible that the respondents could not see themselves as committing sexual coercion or rape, as they required a high number of standard drinks to feel very drunk and lose the ability to think clearly. As such, they may have held the belief that the actions of the male in the scenario may have been deliberate. In accordance with the *Defence Attribution Theory* (Shaver, 1970), as male respondents may not have been able to relate to the male in the scenario, they may have perceived the male as more blameworthy than the female. Due to the negative correlation between the amount of blame attributed to the male and the blame attributed to the female in the scenario, as the male was perceived as more blameworthy for the situation, less blame was attributed to the female.

Male respondents who held the attitude that alcohol lessens control were more likely to attribute a higher level of blame to the female in the hypothetical date-rape scenario, compared to those who did not possess this attitude. It may be that respondents with this attitude held the belief that the female in the scenario should have known that alcohol lessens control and thus should not have put herself in that situation in the first place. This can be explained by the *Corresponded Inference Theory* (Jones and Davis, 1965), as male respondents may have thought that the female in the date-rape scenario was aware of the potential negative consequences of alcohol consumption, but regardless, she consumed alcohol and placed herself in a risky situation. As such, a higher level of blame was attributed to her. Similarly, this may also be partly explained by MacAndrew & Edgerton's theory of drunkenness as a "time out" (1969), as male respondents who held the attitude that alcohol lessens control may have attributed a lower level of blame to the male in the scenario. Consequently, more blame was attributed to the female in the scenario, as the amount of blame attributed to the male was found to be negatively correlated with the blame attributed to the female.

An unexpected finding regarding the variables associated with attribution of blame by male respondents was the fact that the respondents' attitude that alcohol lessens control was significantly associated with the level of blame attributed and thus remained in the final model; whereas the inebriation level of the vignette participants (which was an independent variable of interest) was eliminated from the model. It may be possible that for male respondents, their feelings regarding alcohol's impact on personal control guided their attribution of blame. Due to

the fact that male respondents held the attitude that alcohol lessens control, they may have expected that bad things occur when alcohol is involved. Therefore, their attitudes may have served as a basis for **explaining** the situation, and thus displacing the actual level of inebriation of the vignette participants from the final model (Tryggvesson & Bullock, 2004). The mere fact that alcohol was involved, may have played an overarching role in blame attribution, consequently the effect of inebriation level may have become insignificant. In addition, the R-square value of 0.082 for male respondent's final model illustrated that the variables in the model predicted 8.2% of the variance in blame attributed to the female in the scenario, which is lower than the variation in blame attribution explained by the final model of female respondents. Thus, it is clear that the variables that were examined did not capture the variation in blame attributed by male respondents. Other variables that were not considered by the study may have explained the variation to a greater degree. Such variables may include but are not limited to the way that the female was dressed, prior relationship between the male and the female, the time of day that the date-rape occurred, illicit drug use by the female and female's religion.

6.6 Study Strengths and Limitations

6.6.1 Strengths

The current study is nationally representative of Swedish young adults ages 16 to 25. This is the first study to examine how the relationship between the amount of alcohol consumed by the female and the level of blame attributed to her, may be modified by initiation and severity of the event. Considering that the data for the current study was collected prior to 2005, when the Swedish law expanded the legal definition of rape to include sexual exploitation (the situation

when a female has consumed alcohol and/or drugs), the findings from the current study have the potential to be used in monitoring the impact of the policy. Thus, the current study has the potential to provide important information that may evaluate recent policy change.

Study participants were recruited through random digit dialling of home telephone numbers across Sweden. The recruitment process limited the potential for selection bias, and provided a sample which was nationally representative of Swedish young adults ages 16 to 25. In addition, the response rate was calculated to be 73.8%, which is considered an excellent response rate for phone surveys (de Leeuw, Hox, & Dillman, 2008).

The use of the vignette technique to address the objective of this study reduced the potential for social desirability bias. Each participant responded to only one variation of the vignette, and the analyses were conducted between-subjects. This technique assisted in reducing the social desirability bias because participants were not asked directly if the female in the scenario should be blamed more because she consumed alcohol, neither were they asked to make comparative judgements between conditions. Due to the sensitive nature of the topic, this has been shown to be a preferred method to limit social desirability bias (Stormo, Lang, & Stritzke, 1997).

6.6.2 Limitations

The external validity of the study, with regards to whether the findings can be generalized to other rape contexts, may be a concern. This is mainly due to the use of hypothetical date-rape scenarios in examining the relationship between the level of alcohol consumed by the female and

the level of blame attributed to her. Due to the artificial nature of vignettes, generalizability of the findings to real situations is a concern. Although it is important to acknowledge that the vignette was designed to be relevant to youth, when confronted with a real situation there are other variables that may take precedence in influencing blame attribution, which may not have been feasible for the study to address, thus, limiting the generalizability of the study to real situations. Such variables might include the relationship with the victim, respondent's experience with sexual assault, etc.

Furthermore, specific to the design of the study, another limitation is the exclusion of individuals who only had cell phones. A cross-cultural study examining the density of cell phones, which refers to the number of cell phone subscribers for 100 people, found that in 2001, the year prior to when this study was conducted, Sweden had a density of just above 80% (Fallah & Aravantinos, 2006). However, there is a gap in the literature with regards to the prevalence of individuals who had a cell phone, but not a home phone. Understandably, this might have led to the overrepresentation of participants between the ages of 16 and 18, which was experienced, as this age group was more likely to live at home with parents and thus were accessible by home phone. In contrast, more individuals above the age of 18 might have moved out of their family home and might have had only a cell phone. Thus, they were excluded from the study because it was believed that these individuals would be unwilling to complete a 25 minute interview by cell phone due to cost, battery etc., which led to the underrepresentation of this age group. However, in order to address this issue, the data were weighted by age so it would be representative of the national population. There is also a concern that the individuals who had a

cell phone but not a home phone may have been different than those who were reached by a home phone, regarding the variables that the study was interested in. These individuals can be considered as early adopters and are known to have a higher socioeconomic status and higher education than the general population (Rogers, 2003). Thus, it can be argued that they may have been more egalitarian with regards to other aspects of their lives; as such, these individuals may have attributed a lower level of blame to the female in the hypothetical date-rape scenario.

The impact of missing data upon study findings raises another concern. The current study had a response rate of 73.8 %, which is an excellent response rate compared to other studies using phone surveys (de Leeuw, Hox, & Dillman, 2008). Of the 1,214 individuals who were in the net sample, 68 refused on principle, 79 refused due to the lack of time and 63 individuals were not reached after 7 attempts. The 68 individuals who refused on principle refused to participate regardless of the subject of the questionnaire. So, it can be argued that their views would not have impacted the study, as each society has individuals who are unwilling to participate in scientific endeavours. The 79 individuals who refused because of the lack of time may have been unwilling to participate when they found out the length of the interview, but it is also reasonable to assume that the subject matter may have been too personal for them and hence they may have kindly refused by using the lack of time as an excuse. In this case, it is unclear how the study would have been impacted. Similarly, it is also unclear how the study would have been impacted by the 63 individuals who were not reached after 7 attempts.

6.7 Generalizability of the Findings to the Canadian Context

It is important to acknowledge that a study can only be generalized to a population which it represents. This study is generalizable to Swedish young adults aged 16-24 who still had access to a land phone line. Due to cultural differences between countries, the findings from the study cannot be generalized to other populations in Europe or elsewhere.

Looking closely at the differences between Sweden and Canada, it is important to recognize that Swedish youth are not held criminally responsible until the age of 21; however, in Canada the age at which a young person is held criminally responsible depends on the type of crime that has been committed (Altstein & Simon, 2007). One may argue that because Swedish youth are not held criminally responsible for sexual assault if they are younger than 21 years old, the legal system may not be sufficient to deter them from committing such crimes. Hence, it may not be appropriate to generalize these findings to the Canadian youth, as based on the law the Canadian youth have much more to lose if they commit sexual assault and hence their perspective regarding the hypothetical date-rape scenario may drastically differ. However, it can also be argued that due to the low reporting rate of sexual crimes (Statistics Canada, 2006) and the low probability of conviction (Statistics Canada, 2008), the Canadian law regarding sexual crimes may not impact Canadian youth, because most cases are not reported, and even after they are reported the conviction rate is low.

Another relevant difference between Sweden and Canada is the difference in literacy levels. Sweden and Canada have been known to have a wide gap in literacy skills. Excluding foreign

born individuals, among youth aged 16 to 25 without post-secondary education, 12% of Swedes versus 39% of Canadians had literacy skills below level 3 (able to understand and use information in daily life) in all three literacy domains (document, prose, quantitative) (Kapsalis, 2001). This is of particular interest as low literacy skills are closely correlated with low levels of education (Kapsalis, 2001). Education tends to provide individuals with more perspectives from which they can view the world from, as such, individuals who are more educated may perceive the date-rape scenario differently than those who are less educated. Therefore, the findings from the Swedish youth population which has been known to have a higher literacy rate, may not be generalizable to the Canadian context.

When examining the ability to generalize the findings to the Canadian context, it is also important to explore the difference in the living arrangements between Swedish and Canadian youth, at the time when the study was conducted. Exploring the living arrangements is relevant to addressing generalizability, as in the current study the living situation in the past 12 months was found to be associated with blame attributed by female respondents. Although the literature on living arrangements did not provide parallel information for both Sweden and Canada, the majority of Swedish youth between the ages of 18 and 19 lived at home with parents, followed by living alone, and living with a partner; whereas, the majority of women between the ages of 20 to 24, lived with a partner, followed by living alone, and from this age group almost equal proportion of men lived alone, lived with parents or lived with a partner (Nordenmark, 2001). In contrast, the majority of Canadian youth between the ages of 15 and 24 lived with parents and about 25% lived with neither one of the parents (Liu, Kerr & Beaujot, 2006). Although the

statistics for Sweden and Canada are not congruent with one another, it can be observed that a higher proportion of Canadian youth lived with parents, compared to Swedish youth. As such, it may be possible that Canadian youth may be more prone to being influenced by their parents' views on sexuality and alcohol use and thus their perception of the date-rape scenario may differ from the perception of the more liberated, Swedish youth. Therefore, it may not be appropriate to generalize these findings to the Canadian youth population.

Exploring the differences in youth drinking patterns between Sweden and Canada is also important in addressing the generalizability of the findings to the Canadian context. The information on drinking patterns is relevant as the findings from the bivariate analyses have illustrated that the frequency and the amount of alcohol consumed were associated with the blame attributed. For example, female respondents who frequently drank five or more drinks on an occasion attributed a lower level of blame to the female than those who drank less frequently. A cross-national study comparing drinking patterns among youth in the late 1990s found that 41% of Swedish youth compared to 21% of Canadian youth drank five or more drinks on any day last month (Smart & Ogborne, 2000). Although the breakdown by sex was not reported, it is reasonable to argue based on the *Defence Attribution Theory* (Shaver, 1970), that Canadian youth, due to their less frequent consumption of excessive amount of alcohol, may have a lower personal relevance to the female in the scenario and hence may attribute a higher level of blame compared to Swedish youth. Due to the difference in drinking patterns, Canadian youth might also differ in the way that they perceive the variables involved in the date-rape scenario. It might be possible that because Canadian youth do not consume excessive amounts of alcohol as

frequently as Swedes, the severity of the situation may not play a role in blame attribution. From the Canadian perspective the male in the scenario should never have been intoxicated to a point that it hinders his ability to think clearly and understand the meaning of ‘no’. Therefore, it might not be appropriate to generalize the findings to the Canadian context, as for Canadian youth other variables may explain blame attribution to a greater degree than those investigated here.

The average age at which youth experience their first sexual intercourse in Sweden versus Canada may also have implications for the generalizability of the findings from the Swedish to the Canadian population. The average age at first sexual intercourse for Swedish people between the ages of 18-34, in late 1990s, was 16.5 years for women and 17 years for men (Sundström, 2001). Similarly, the findings from the 2003 Canadian Community Health Survey demonstrated that the average age at the first sexual intercourse for both males and females was 16.5 years (Rotermann, 2005). Although the statistics available may not be congruent, they do illustrate that Swedish and Canadian youth are very similar with regards to the age of first sexual intercourse. Considering that sexual coercion has been associated with a younger age at first sexual intercourse (Yimin, et al., 2001), it is important to address this characteristic because a major difference in the average age of first intercourse between the Swedish and Canadian youth may result in differences on how sexual violence is perceived from Swedes versus Canadians. In addition, the average age at first sexual intercourse for a population may also have implications with regards to that population’s perspective on gender roles and sexual scripts. Populations where females have a much older age of first sexual intercourse or no sexual intercourse before marriage may be more traditional. As such, the hypothetical date-rape scenario may not be

relevant to them, as it does not fit within their cultural norm. Hence, the findings would not be generalizable to that population, because of the type of scenario depicted but also because of the differences in perceptions between the two populations. Regardless, youth in Sweden and Canada experience their first sexual intercourse at about the same age. As such, based on this characteristic only, the findings from the Swedish population would be generalizable to the Canadian context.

Finally, it would not be valid to address the generalizability of the findings to the Canadian context without addressing the heterogeneity of the Canadian population. Unlike Sweden, Canada is very multicultural. Thus, the Canadian population is not only composed of immigrants from all over the world, but also Canada allows and facilitates immigrants to practice their culture and religion, through government funded education for youth. Every Saturday, youth have the option of attending education in their language, so they can not only preserve their first language but they can also preserve their cultural practices. In contrast, immigrants in Sweden are pressured to assimilate through government programs that teach them how to fit in the Swedish culture. Therefore, due to the fact that the Canadian population is composed of so many different cultures, and thus so many different perspectives, it is reasonable to argue that there would be major variability on how the date-rape scenario is perceived. Canadian youth, depending on their background, may perceive some variables in the vignette to be much more important than others. As a result, it may be that for Canadian population, the analyses would have to be stratified by culture of origin, which would require a very large sample size. The independent variables addressed in this study may have a minute importance in blame attribution

for some cultures and on the other hand may carry significant weight in explaining blame attribution for other cultures. As such, the findings from the homogenous Swedish population may be too simplistic to be generalized to the heterogeneous Canadian population, where there are many different perspectives where the hypothetical date-rape scenario used in Sweden may even be irrelevant to some Canadian sub-cultures.

6.8 Implications for Policies and Programs

The findings from the current study raise implications for potential policies or programs that can serve to change social norms regarding sexual violence towards women. The findings from this study partially support the premise that women who have consumed alcohol prior to the date-rape incident are blamed for their victimization. Considering that culture's perception of sexual crimes has been found to influence victim self-blame (Weiss, 2010), women who consume alcohol during the sexual assault incident are more likely than those who do not consume alcohol to blame themselves for the event (Littleton et al., 2009; Pitts & Schwartz, 1997). This contributes to a major problem in the society, as women who blame themselves are less likely to report the sexual assault to authorities thus leading to underreporting of sexual crimes (Weiss, 2010). Therefore, it is important to develop policies that protect women who have experienced sexual violence from being discriminated against by the legal system and the society, as a whole, especially if they have been under the influence of alcohol during the sexual violence incident. This may serve to empower women and could potentially lead to a decrease in underreported sexual crimes, as well as a decrease in the incidence of sexual crimes, as perpetrators are deterred from the legal consequences associated with such crimes. At a community level, programs

should be developed to increase awareness about sexual violence towards women, and what women can do to help themselves when confronted with sexual violence. Women should be taught that it is not their fault if they experience sexual violence, regardless if they have been drinking or have initiated the sexual interaction. With time, as women learn to understand that it is not their fault, their level of self-blame will be reduced, which in turn can potentially lead to an increase in the reporting rate of sexual violence. Therefore, such programs may contribute to changing social norms regarding sexual violence towards women.

6.9 Implications for Future Research

Future research on attribution of blame should employ a mixed method approach. In the current study, quantitative methods have provided extensive information. However, the use of qualitative methods could have provided the depth that is required for a comprehensive examination of the blame attributed to a female in the hypothetical date-rape scenario. Qualitative questions addressing the reasons for the amount of blame attributed to the female in the date-rape scenario could have provided more depth on which independent variables take precedence when attributing blame. This would have also provided more information on why the male and the female respondents differed in their blame attribution. It is understandable that it may not be feasible to ask 1,004 participants open ended questions, however, a random sample from the participants could have been taken to gain detailed information through the use of qualitative research methods.

Considering that the current study examined three independent variables, and the findings from male respondents were unexpected, future studies examining similar variables should employ a larger sample size. An inadequate sample size limits the power of statistical tests thus leading to a failure in discovering associations that are, in fact, present (Hill & Lewicki, 2007). Depending on the heterogeneity of participants, some studies may require even a greater sample size.

In places where a portion of the population can only be reached by a cell phone, future studies should conduct a preliminary study to examine if there are significant differences on the measures of interest between those who can be reached by a home phone and those who can only be reached by a cell phone. This would provide information on whether or not the study sample will be biased if potential participants are only recruited through home phone. If significant differences exist in the measures of interest, the study should adapt its recruitment process in order to select an unbiased sample. If resources are limited and adaptation is not feasible, the researchers should acknowledge their selection bias and provide educated assumptions on how the results would differ in the absence of the selection bias.

7. Conclusions

The level of blame attributed to a victim of a date-rape, where the victim, the perpetrator or both have consumed alcohol, has many implications not only on culture's perception of this issue, but also on policies and programs that can be developed to change social norms in accordance with human rights. Previous studies have mainly examined alcohol and aggression in men and the blame attributed to the male perpetrator of a date-rape where alcohol was involved. Less research has been conducted on attribution of blame to the victim especially with respect to date-rape, where blame and responsibility are notably less clear-cut than in a stranger rape. Examining the blame attributed to the female in a date-rape situation involving alcohol, the current study has found that for female respondents there is no simple association between a female's alcohol consumption and the level of blame attributed to her if she is sexually assaulted. The level of blame attributed to the female in the hypothetical date-rape scenario depended on a three-way interaction between the inebriation level, initiation and severity, controlling for female respondents' living situation in the last 12 months, their frequency of drinking five or more drinks in the past 12 months, and their expectancy that 'alcohol makes people more sexual'. For male respondents, however, the level of blame attributed only depended on the severity of the situation, controlling for male respondents' mean number of standard drinks to feel the effects of alcohol and their attitude that 'alcohol lessens control'. While none of the theories on attribution of blame can entirely explain the findings of the current study, the *Corresponded Inference Theory* (Jones & Davis, 1965) provides the best support. Although the current study sheds some light in this topic, more research is required to fully understand the complex phenomenon of blame attribution in date-rape situations where alcohol is involved.

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Appendix A: Consent Form

ID # _____

Vignette Pilot Test

This study is being conducted by researchers from the Centre for Social Research on Alcohol and Drugs at Stockholm University.

If you agree to be involved it will take approximately 15 minutes of your time. I will begin by reading out a scenario and then ask you questions about the participants' responsibility, blame and appropriate punishment for the actions. I will also ask you about how easy or difficult it was to follow the scenario and answer the questions. This study is being conducted in order to develop these scenarios for use in a larger study which will be conducted later this year.

By consenting to participate in this study you are indicating that you understand and agree to the following 5 items.

1. You have volunteered to participate in an interview about attitudes towards aggression in society. The interview will last approximately 15 minutes.
2. You may refuse to answer any questions and that you may withdraw from the study at anytime.
3. You will be assigned an identification number to be used on your interview, and no personal identifying information will be attached to your questionnaires or any other information you provide to the study office. Your first name and phone number (if provided) will only be used for the purposes of scheduling and confirming appointments.
4. All information you provide will be treated as strictly confidential and all information you provide will be stored in a locked, secure facility. Reports written as a result of the research will not identify individuals, and will only refer to grouped information.
5. I will receive _____ for my participation in the research. My involvement will help researchers to better understand. ????

Do you have any questions for me at this time?

Do you consent to participate in this study by allowing me to interview you?

- Verbal consent to continue has been obtained
- Verbal consent to continue has NOT been obtained

Interviewer Signature

Date

Appendix B: Study Questionnaire

Alcohol and Aggression Questionnaire

Bullock, Room and Tryggvesson

Final - 2002 -01 - 14

- A. Hello my name is and I am calling from MOA. On behalf of Stockholm University, we are interviewing young people about their attitudes and expectations with regards to alcohol and aggression. At this time we are interviewing people who are aged 16 to 25. Does anyone of this age live within your household?

If more than one, use the birthday method to determine who to interview.

-If birthday method indicates a different person - May I please speak with ... then continue with

B.

-If birthday method indicates the same person then continue with C.

-If only one person meets criteria, then continue with C.

- B. Hello my name is and I am calling from MOA. On behalf of Stockholm University we are asking young people about their attitudes and expectations with regards to alcohol and aggression.

- C. You have been selected by chance, and we would like it very much if you could take the participate in this survey. It should take no more than 25 minutes, and when we tested the questionnaire people felt it was very interesting. We guarantee that you all results are anonymous and confidential. No one will know how you personally answered the questions. Your participation is voluntary and you can refuse to answer questions that you do not feel comfortable with. Would you be willing to help us by participating?

ID# _____

Date _____

Start time _____

Section A

A1. Have you ever had a drink of any alcoholic beverage, not including small tastes or lite beer or cider with an alcohol content of less than 2.8% ?

1. Yes
0. No ---> go to A2a
98. *Don't know* ---> go to A8
99. *Refused* ---> go to A8

A2. How often did you drink alcoholic beverages during the past 12 months? Would you say...

8. Daily (*6 or more times a week*)
7. 4 to 5 times a week
6. 2 to 3 times a week
5. Once a week
4. 2 or 3 times a month
3. About once a month
2. A few times in the last 12 months (*2 to 9 times*)
1. Only once in the last 12 months
0. Never in the 12 months --> go to A2a
98. *Don't know*
99. *Refused*

A2a *If never to A3*, Is there a particular reason why you have not consumed alcohol during the past 12 months? (*all go to A8*)

1. *no specific reason*
 2. *medical reasons*
 3. *pregnancy / breastfeeding*
 4. *quit drinking due to past alcohol problems*
 5. *religious reasons*
 6. *it is illegal to drink at my age*
 7. *don't like the taste*
 8. *don't like the effects of alcohol*
 9. *a parent or someone close has, or had, a problem with alcohol*
 10. *don't believe that drinking is appropriate for (for someone my age)*
 11. *my parents don't approve of drinking*
 12. *other , (indicate if 2 or more of above or other reasons provided by respondent) _____*
-

98. *Don't know*
99. *Refused*

A3. During the past 12 months, how often did you drink alcoholic at least 3 cans of stark \bar{I} on the same day. Would you say... [Tre burkar starköl motsvarar ungefär 20 cl sprit, nästan en flaska vin, eller 5 burkar med folköl (3.5%)].

8. Daily (*6 or more times a week*)
7. 4 to 5 times a week
6. 2 to 3 times a week
5. Once a week

- 4. 2 or 3 times a month
- 3. About once a month
- 2. A few times in the last 12 months (*2 to 9 times*)
- 1. Only once in the last 12 months
- 0. Never in the 12 months --> go to A5
- 98. *Don't know*
- 99. *Refused*

(Question A4 removed)

A5. How often in the last 12 months did you drink alcohol in a restaurant, bar, or club? Would you say...

- 8. Daily (*6 or more times a week*)
- 7. 4 to 5 times a week
- 6. 2 to 3 times a week
- 5. Once a week
- 4. 2 or 3 times a month
- 3. About once a month
- 2. A few times in the last 12 months (*2 to 9 times*)
- 1. Only once in the last 12 months
- 0. Never in the 12 months
- 98. *Don't know*
- 99. *Refused*

For the next questions, **feeling the effects of alcohol, (smΔberusad)** is defined as: feeling still under control but more relaxed or light-headed or happy or more talkative or having slightly slurred speech or feeling a little bit clumsy. **Feeling very drunk (j≃ttefull)** is defined as losing coordination or difficulty talking or walking or thinking straight or seeing double or feeling sick. (“feeling the effects” is equivalent to the term “a little drunk” which is a more literal translation of smΔberusad).

A6a. How often in the last 12 months did you drink enough to feel the effects of alcohol, but not feel very drunk? Would you say...

- 8. Daily (*6 or more times a week*)
- 7. 4 to 5 times a week
- 6. 2 to 3 times a week
- 5. Once a week
- 4. 2 or 3 times a month
- 3. About once a month
- 2. A few times in the last 12 months (*2 to 9 times*)
- 1. Only once in the last 12 months
- 0. Never in the 12 months
- 98. *Don't know*
- 99. *Refused*

A6. How many drinks does it take to make you feel the effects? (*enter amount in terms of the respondent's preferred choice of alcohol. If respondent offers a range, enter both, if they only offer one amount, enter it in the first space*)

A6b. Number: ___ - ___ glasses of wine

A6c. Number: ___ - ___ cans strong beer

A6d. Number: ___ - ___ shots of spirits

A6e. Number: ___ - ___ flaskor cider (50 cl)

A6f. Other, Number: ___ - ___ – specify other alcohol type and amount

98. *Don't know*

99. *Refused*

|A7a. How often in the past 12 months did you drink enough to feel very drunk? Would you say...

8. Daily (*6 or more times a week*)

7. 4 to 5 times a week

6. 2 to 3 times a week

5. Once a week

4. 2 or 3 times a month

3. About once a month

2. A few times in the last 12 months (*2 to 9 times*)

1. Only once in the last 12 months

0. Never in the 12 months --> go to A8a

98. *Don't know*

99. *Refused*

A7. How many drinks does it take to make you feel very drunk? (*enter amount in terms of the respondent's preferred choice of alcohol. If respondent offers a range, enter the lower value*)

A7b. Number: ___ - ___ glasses of wine

A7c. Number: ___ - ___ cans strong beer

A7d. Number: ___ - ___ shots of spirits

A7e. Number: ___ - ___ flaskor cider (50 cl)

A7f. Other, Number: ___ - ___ – specify other alcohol type and amount

98. *Don't know*

99. *Refused*

A8. If A1 = no(0) or A2=no(0) then read out definition of $j \cong ttefull$, as seen in the preamble to question A6a, prior to reading question A8

Among the people you hang out with, what proportion get very drunk ($j \cong ttefull$) at least once a month? Would you say... (*probe don't know: How many of your friends (vänner-kompisar)?*)

4. all or nearly all of them

3. more than half of them

2. less than half of them

1. only a few of them, or

0. none of them

98. *don't Know*

99. *refused*

Now I have some questions about your use of recreational or illicit drugs.

A 9a. Have you ever used (or smoked) marijuana or hash?

1. Yes

0. No --> go to A10

98. *Don't know* --> go to A10

99. *Refused* --> go to A10

A9b. Did you use (or smoke) marijuana or hash in the last 12 months?

1. Yes

0. No

98. *Don't know*

99. *Refused*

A10. Among the people you hang out with, what proportion have used (or smoked) marijuana or hash in the last 12 months? Would you say... (*probe don't know: How many of your friends (vänner-kompisar)?*)

4. all or nearly all of them

3. more than half of them

2. less than half of them

1. only a few of them, or

0. none of them

98. *don't Know*

99. *refused*

Section B

Now I am going to read out a series of scenarios that involve aggressive incidents where people are socializing and often drinking. A series of questions will be asked following each vignette to enquire about your opinions of the people involved and the details of the incident.

B1. (3 x 2 x 2 = 12 variations)

Emma is out for the evening with some girlfriends at a crowded club. (1a. Standing at the bar, Emma sees someone leering at her and feels as though she is being mentally undressed / 1b. On her way to the bar, Emma feels someone grabbing her breast). It is (2a. an acquaintance from school / 2b. a complete stranger). The (2a. acquaintance from school / 2b. stranger) is (3a. on his first drink and is still sober / 3b. a little drunk / 3c. obviously very drunk)! Emma feels uncomfortable and goes to find her friends.

Independent Variables

1. Severity of situation
2. Relationship between Emma and her aggressor
3. Amount of alcohol consumed by the aggressor

B1a. On a scale from 1 to 10, how much do you think that the (guy from school / stranger)'s drinking contributed to this happening, where 1 equals not at all, and 10 equals very much?

It didn't contribute at all	1	2	3	4	5	6	7	8	9	10	98. <i>Don't know</i>
									it contributed very much		99. <i>Refused</i>

B1b. On a scale from 1 to 10, how much blame should be put on the (guy from school / stranger) for this happening, where 1 equals none at all, and 10 equals a lot of blame?

None of the blame	1	2	3	4	5	6	7	8	9	10	98. <i>Don't know</i>
									A lot of Blame		99. <i>Refused</i>

B1c. On a scale from 1 to 10, how bad should the (guy from school / stranger) feel the next morning about what he did, where 1 equals not bad at all, and 10 equals very bad?

Not bad at all	1	2	3	4	5	6	7	8	9	10	98. <i>Don't know</i>
									Very Bad		99. <i>Refused</i>

B1d. On a scale from 1 to 10, if one of your friends acted like the (guy from school / stranger), how much would it affect your friendship in a negative way, where 1 equals no negative affect, and 10 equals very negatively?

No negative affect	1	2	3	4	5	6	7	8	9	10	98. <i>Don't know</i>
									Very negatively		99. <i>Refused</i>

B1e. On a scale from 1 to 10, how serious do you think that this incident is, where 1 equals not serious at all, and 10 equals very serious?

No serious at all									Very serious	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B1f. On a scale from 1 to 10, should the police be called, and the incident reported, where 1 equals definitely should not call, and 10 equals definitely should call?

Definitely no call									Definitely call	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B2 (5 x 2 x 2 = 20 variations)

Lena and Olof are classmates and are at the same party. They spend a lot of time together at the party and (1a. Olof / 1b. Lena) suggests they should go to a room where it is quieter and they can get to know each other better. At this point, (variation 2). Once in the room, they begin to kiss and (1a. Olof / 1b. Lena) begins to remove (1a. Lena's blouse / 1b. Olof's shirt). When Olof wants to have sex, Lena (3a. says she would rather wait, but Olof is insistent and she gives in and they have sex / 3b. fights back and yells for help, but Olof goes ahead and has sex with her anyway).

Independent Variables

1. Who initiates sexual activity
2. Lena and Olof's alcohol consumption
 - a. Olof and Lena have both had enough alcohol to be very drunk
 - b. Olof and Lena are both on their first glass of wine and are still sober
 - c. Olof and Lena have both had enough alcohol to be a little bit drunk (feel the effects)
 - d. Olof has drunk enough to be very while drunk, and Lena is on her first glass of wine and is still sober
 - e. Olof is on his first glass of wine and is still sober, and Lena had had enough to be very drunk
3. Severity - Lena's attempt to stop Olof

B2a. On a scale from 1 to 10, how much do you think that Olof's drinking contributed to this happening, where 1 equals not at all, and 10 equals very much?

It didn't contribute at all									it contributed very much	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B2b. On a scale from 1 to 10, how much do you think that Lena's drinking contributed to this happening, where

1 equals not at all, and 10 equals very much?

It didn't contribute at all									it contributed very much	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B2c. On a scale from 1 to 10, how much blame should be put on the Olof in this situation, where 1 equals none at all, and 10 equals a lot of blame?

None of the blame									A lot of Blame	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B2d. On a scale from 1 to 10, how much blame should be put on Lena in this situation, where 1 equals none at all, and 10 equals a lot of blame?

None of the blame									A lot of Blame	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B2e. On a scale from 1 to 10, how bad should Olof feel the next morning about what he did, where 1 equals not bad at all, and 10 equals very bad?

Not bad at all									Very Bad	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B2f. On a scale from 1 to 10, if one of your friends acted like the (guy from school / stranger), how much would it affect your friendship in a negative way, where 1 equals no negative affect, and 10 equals very negatively?

No negative affect									Very negatively	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B2g. On a scale from 1 to 10, how serious do you think that this incident is, where 1 equals not serious at all, and 10 equals very serious?

No serious at all									Very serious	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B2h. On a scale from 1 to 10, should the police be called, and the incident reported, where 1 equals definitely

should not call, and 10 equals definitely should call?

Definitely no call										Definitely call	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>

B3 (3 x 2 x 2 x 2 = 24 variations)

You and your best friend (1a. Håkan / 1b. Mats) are out at a local pub. (1a. A stranger / 1b. Mats) has just come from the bar and is already (2a. a little drunk / 2b. very drunk). On his way back to his table, he bumps into (1a. your best friend Håkan / 1b. a stranger) and spills some beer on him. (1a. Håkan / 1b. The stranger), who (3a. hadn't finished his first beer yet and is still sober / 3b. is a little drunk / 3c. is very drunk) isn't pleased and tells (1a. the guy / 1b. Mats) to go to hell. (1a. The guy / 1b. Your best friend Mats) then tells (1a. Håkan / 1b. the guy) to back off and pushes him out of the way. (1a. Håkan / 1b. The guy) then (4a. pushes him so that he falls to the ground / 4b. punches him until his nose starts to bleed).

Independent Variables

1. Relationship between reader and participants
2. Provokateur's alcohol consumption
3. Aggressor's alcohol consumption
4. Severity of outcome

B3a. On a scale from 1 to 10, how much do you think that (Håkan / the stranger)'s drinking contributed to this happening, where 1 equals not at all, and 10 equals very much?

It didn't contribute at all										it contributed very much	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>

B3b. On a scale from 1 to 10, how much do you think that (the stranger / Mats)'s drinking contributed to this happening, where 1 equals not at all, and 10 equals very much?

It didn't contribute at all										it contributed very much	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>

B3c. On a scale from 1 to 10, how much blame should be put on the (Håkan / the stranger) for this happening, where 1 equals none at all, and 10 equals a lot of blame?

None of the blame										A lot of Blame	98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>

B3d. On a scale from 1 to 10, how much blame should be put on (the stranger / Mats) for this happening, where 1 equals none at all, and 10 equals a lot of blame?

None of the blame										A lot of Blame		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

B3e. On a scale from 1 to 10, how bad should (Håkan / the stranger) feel the next morning about what he did, where 1 equals not bad at all, and 10 equals very bad?

Not bad at all										Very Bad		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

B3f. On a scale from 1 to 10, if one of your friends acted like the (Håkan / the stranger), how much would it affect your friendship in a negative way, where 1 equals no negative affect, and 10 equals very negatively?

No negative affect										Very negatively		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

B3g. On a scale from 1 to 10, how serious do you think that this incident is, where 1 equals not serious at all, and 10 equals very serious?

No serious at all										Very serious		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

B3h. On a scale from 1 to 10, should the police be called, and the incident reported, where 1 equals definitely should not call, and 10 equals definitely should call?

Definitely no call										Definitely call		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

B4 (2 x 2 x 2 x 2 = 16 variations)

(1a. Tobbe is having a bad day, he has just broken up with his girlfriend so he goes to a bar to forget about it all / 1b. Winding down after a long day at school, Tobbe goes to a bar to have a few drinks). Tobbe gets (2a. a little drunk / 2b. very drunk). Another guy at the bar who is (3a. a little drunk / 3b. very drunk), sits down beside him at the bar and tries to start a conversation. Tobbe politely asks to be left alone. The guy continues talking. Finally, Tobbe gets up and (4a. impolitely pushes him so that he falls to the ground, and tells him to get lost / 4b. punches him until his nose starts to bleed) and then walks away.

Independent Variables

1. Grade of how bad Tobbe's day was
2. Tobbe's alcohol consumption
3. Other bar patron's alcohol consumption
4. Severity of outcome

B4a. On a scale from 1 to 10, how much do you think that Tobbe's drinking contributed to this happening, where 1 equals not at all, and 10 equals very much?

It didn't contribute at all								it contributed very much		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B4b. On a scale from 1 to 10, how much do you think that the other guy's drinking contributed to this happening, where 1 equals not at all, and 10 equals very much?

It didn't contribute at all								it contributed very much		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B4c. On a scale from 1 to 10, how much blame should be put on the Tobbe for this happening, where 1 equals none at all, and 10 equals a lot of blame?

None of the blame								A lot of Blame		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B4d. On a scale from 1 to 10, how much blame should be put on the other guy for this happening, where 1 equals none at all, and 10 equals a lot of blame?

None of the blame								A lot of Blame		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10	99. <i>Refused</i>

B4e. On a scale from 1 to 10, how bad should Tobbe feel the next morning about what he did, where 1 equals not bad at all, and 10 equals very bad?

Not bad at all										Very Bad		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

B4f. On a scale from 1 to 10, if one of your friends acted like the Tobbe, how much would it affect your friendship in a negative way, where 1 equals no negative affect, and 10 equals very negatively?

No negative affect										Very negatively		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

B4g. On a scale from 1 to 10, how serious do you think that this incident is, where 1 equals not serious at all, and 10 equals very serious?

No serious at all										Very serious		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

B4h. On a scale from 1 to 10, should the police be called, and the incident reported, where 1 equals definitely should not call, and 10 equals definitely should call?

Definitely no call										Definitely call		98. <i>Don't know</i>
1	2	3	4	5	6	7	8	9	10		99. <i>Refused</i>	

Section C

C1. Here is a list of things people say happen to them when they drink alcohol. Please indicate how likely you think it is for these things to happen **to other people** when they drink.

	How likely is it that drinking alcohol makes other people (<i>read item</i>)? Would you say... ->	Very Likely	Likely	Unlikely	Very Unlikely	<i>Don't Know</i>	<i>Refused</i>
C1a	lose their inhibitions	4	3	2	1	98	99
C1b	not care what anyone thinks about what they do	4	3	2	1	98	99
C1c	do things they regret later	4	3	2	1	98	99
C1d	feel more calm (<i>relaxed and less agitated</i>)	4	3	2	1	98	99

C2. Please indicate how likely you think it is for these things to happen **men** when they drink alcohol.

	How likely is it that drinking alcohol makes men (<i>read item</i>)? Would you say... -->	Very Likely	Likely	Unlikely	Very Unlikely	<i>Don't Know</i>	<i>Refused</i>
C2a	want sex more	4	3	2	1	98	99
C2b	become more sexually forward (<i>Swedish= take more sexual initiative</i>)	4	3	2	1	98	99
C2c	become more aggressive	4	3	2	1	98	99
C2d	get involved in physical fights	4	3	2	1	98	99

C3. Please indicate how likely you think it is for these things to happen **women** when they drink alcohol.

	How likely is it that drinking alcohol makes women (<i>read item</i>)? Would you say... ->	Very Likely	Likely	Unlikely	Very Unlikely	<i>Don't Know</i>	<i>Refused</i>
C3a	want sex more	4	3	2	1	98	99
C3b	become more sexually forward (<i>Swedish= take more sexual initiative</i>)	4	3	2	1	98	99
C3c	become more aggressive	4	3	2	1	98	99
C3d	get involved in physical fights	4	3	2	1	98	99

Section D

D1. Now I will read out a number statements about your own attitudes. For each statement, please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree.

<i>(read item)</i> . Do you... -->		Strongly Strongly Agree Disagree	Agree	Disagree		<i>Don't Refused know</i>
D1a	People are responsible for all of their aggressive actions	4	3	2	1	98 99
D1b	It does people good to get drunk once in a while	4	3	2	1	98 99
D1c	People can control how aggressive they become	4	3	2	1	98 99
D1d	People are responsible for their own sexual behaviour	4	3	2	1	98 99
D1e	Getting drunk is just a good way of having fun	4	3	2	1	98 99
D1f	People can control their own sexual behaviour	4	3	2	1	98 99
D1g	People are responsible for how much they drink	4	3	2	1	98 99
D1h	Sometimes a fight is an acceptable way to handle things	4	3	2	1	98 99
D1i	People can control how much they drink	4	3	2	1	98 99
D1j	A drunk person is responsible for anything they do while drunk	4	3	2	1	98 99
D1k	Drinking makes it difficult to control your aggression.	4	3	2	1	98 99
D1l	A person who is really drunk deserves whatever happens	4	3	2	1	98 99
D1m	If a person has been drinking, some allowances should be made for their rowdy behaviour	4	3	2	1	98 99
D1n	Drinking makes it harder to control your sexual behaviour	4	3	2	1	98 99
D1o	No matter how drunk someone is, they can still tell right from wrong	4	3	2	1	98 99

D2. The next few questions are about the how appropriate you think it is to use for a person to react strongly within particular situations. Sometimes even for a naturally non-aggressive person, some reaction, and even aggression may be called for, and even expected.

	If (<i>read item</i>). What level of reaction is okay? Is it okay for you to.. -->	<i>(record highest level of aggression acceptable)</i>				or	<i>Don't know</i>	<i>Ref</i>
		hit with no closed aggression fist okay	hit or slap once,	push or shove	use harsh words	is		
D2a	someone punches you in the nose first	4 0	3	2	1		98	99
D2b	a man touches you in a sexual way after being told to stop	4 0	3	2	1		98	99
D2c	someone makes a play for your girlfriend or boyfriend, even though they see that you are together	4 0	3	2	1		98	99
D2d	someone humiliates you in front of your friends	4 0	3	2	1		98	99
D2e	you are at a bar with your friends and someone spills beer on you and is rude about it	4 0	3	2	1		98	99

D3. Now I will read out a few statements related to your reaction in various situations. Please tell me if you strongly agree, agree, disagree or strongly disagree with each of these statements.

	How much do you agree or disagree with (<i>read item</i>). Do you ... -->	Strongly Strongly Agree Disagree	Agree	Disagree		<i>Don't Refused know</i>	
D3a	If I did something really bad, I would feel less guilt if I had been drinking at the same time	4	3	2	1	98	99
D3b	I should not be blamed as much for things I do when I have been drinking	4	3	2	1	98	99
D3c	If I hurt someone I would feel worse if I were drunk at the time it happened	4	3	2	1	98	99

D3d	I would forgive a friend's unacceptable behaviour if I knew that he or she was drunk at the time	4	3	2	1	98	99
D3e	If I had sex with someone that my friends did not approve of, I would feel better if it happened because I was drunk	4	3	2	1	98	99
D3f	If I kiss someone when I am drunk it means less than when I am sober	4	3	2	1	98	99
D3g	I would excuse the unacceptable behaviour of friends if they explained that they were drunk at the time	4	3	2	1	98	99
D3h	If I say something mean to a friend when I am drunk, it means less than when I am sober	4	3	2	1	98	99
D3i	If I hit someone when I am drunk, it means less than when I am sober	4	3	2	1	98	99

Section E

E1. For the next series of questions when I use the words “**physical aggression**” I mean any form of physical altercation including an incident involving pushing, shoving, hitting, a fight or assault whether physical or sexual. By “**involved**” I mean as the victim, the person who started the aggression, **or** someone who joined in once it was already in progress.

E1 Since you turned 15 years of age, have you ever been involved in an act of physical aggression?

- 1. Yes
- 0. No ---> go to E3
- 98. *Don't know* ---> go to E3
- 99. *Refused* ---> go to E3

E2. How often in the last 12 months were you involved in an act of physical aggression?

- 8. Daily (*6 or more times a week*)
- 7. 4 to 5 times a week
- 6. 2 to 3 times a week
- 5. Once a week
- 4. 2 or 3 times a month
- 3. About once a month
- 2. A few times in the last 12 months (*2 to 9 times*)
- 1. Only once in the last 12 months
- 0. Never in the 12 months --> go to E3
- 98. *Don't know* --> go to E3
- 99. *Refused* --> go to E3

E2b. In what proportion of these aggressive incidents were you drinking alcohol? Would you say...

- 4. all or nearly all of them
- 3. more than half of them
- 2. less than half of them
- 1. only a few of them, or
- 0. none of them
- 98. *don't Know*
- 99. *refused*

E2c. In what proportion of these aggressive incidents were others drinking alcohol? Would you say...

- 4. all or nearly all of them
- 3. more than half of them
- 2. less than half of them
- 1. only a few of them, or
- 0. none of them
- 98. *don't Know*
- 99. *refused*

E2d. In what proportion of these aggressive incidents did you think of yourself as being a victim? Would you say...

4. all or nearly all of them
3. more than half of them
2. less than half of them
1. only a few of them, or
0. none of them
98. *don't Know*
99. *refused*

E2e. In what proportion of these aggressive incidents were you hurt? Would you say...

4. all or nearly all of them
3. more than half of them
2. less than half of them
1. only a few of them, or
0. none of them
98. *don't Know*
99. *refused*

E2e. In what proportion of these aggressive incidents was someone else hurt? Would you say...

4. all or nearly all of them
3. more than half of them
2. less than half of them
1. only a few of them, or
0. none of them
98. *don't Know*
99. *refused*

E3. Among the people you hang out with, what proportion were involved in a fight or other form of physical aggression over the last 12 months?

4. all or nearly all of them
3. more than half of them
2. less than half of them
1. only a few of them, or
0. none of them
98. *don't Know*
99. *refused*

Next, I will ask a few very general questions about your experience with the Swedish legal system.

E4a. Have you ever been detained by the police for public drunkenness, to detox or dry out?

- 1. Yes
- 0. No --> go to E5a
- 98. *Don't know* --> go to E5a
- 99. *Refused* --> go to E5a

E4b. Has this happened in the past 12 months?

- 1. Yes
- 0. No
- 98. *Don't know*
- 99. *Refused*

E5a. Have you ever been arrested for an incident involving physical aggression?

- 1. Yes
- 0. No --> go to E6a

98. *Don't know* --> go to E6a

99. *Refused* --> go to E6a

E5b. Has this happened in the past 12 months?

- 1. Yes
- 0. No
- 98. *Don't know*
- 99. *Refused*

E6a. Have you ever been suspected of a crime that involved physical aggression?

- 1. Yes
- 0. No --> go to Section F, if E5a = 1.Yes, Go to E7 if E5a = 1.yes
- 98. *Don't know* --> go to Section F, if E5a = 1.Yes, Go to E7 if E5a = 1.yes
- 99. *Refused* --> go to Section F, if E5a = 1.Yes, Go to E7 if E5a = 1.yes

E6b. Has this happened in the past 12 months?

- 1. Yes
- 0. No
- 98. *Don't know*
- 99. *Refused*

E7. If E5a or E6a are answered yes, Did the most recent time have anything to do with drinking?

- 1. Yes
- 0. No
- 98. *Don't know*
- 99. *Refused*

Section F

- F1. Sex
1. Male
 2. Female
- F2. What is your current age? _____
98. *Don't know*
99. *Refused*
- F3. What is your current marital status?
1. Single
 2. Living with partner
 3. Married
 4. Divorced
 5. Other _____
98. *Don't know*
99. *Refused*
- F4. During the last 12 months, what was your living situation for most of the time?
1. Alone
 2. In a student corridor (or other student housing)
 3. With parents – either with or without other siblings and extended family
 4. With a partner and children
 5. With a partner (sambo or spouse)
 6. With children who were under your care
 7. With roommates / flat-mates
 8. Other, specify: _____
98. *Don't know*
99. *Refused*
- F5. What is the highest level of education you have completed?
1. Mandatory 9 years (grundskola)
 2. Folkhögskola
 3. Gymnasium teoretiskt program (nv, sp)
 4. Gymnasium, praktiskt program
 5. Universitet högskola
 6. Arbetsmarknads utbildning/kunskapslyftet/komvux
 7. Annat specificera _____
98. *Don't know*
99. *Refused*
- F6. Please tell me which of the following statements best describes your current work situation?

1. Work full-time (*at least 35 hours per week*)
2. Work part-time,
3. Keeping house
4. Student (no other work),
5. Student and work full-time,
6. Student and work part-time,
7. Unemployed,
8. Disabled, unable to work (either temporarily or permanently)
9. Other , specify _____
98. *Don't know*
99. *Refused*

(Question F7 –religion- removed)

F8a. What is, or was, your mother's occupation? _____

F8b. In what country was your mother born? _____

F8c. What religion was your mother raised in?

1. Church of Sweden (Lutheran)
2. Free Church (Baptist..)
3. Catholic
4. Other Christian
5. Islam
6. Judaism
7. Other – specify _____
98. *Don't know*
99. *Refused*

F9a. What is, or was, your father's occupation? _____

F9b. In what country was your father born? _____

F10. What is your postal code? _____

F11. How many phone numbers, or phone lines, does this household have that are not mobile phones and are not used solely for business purposes? _____

F12. How many people currently live in this household who are over the age of 15 but not yet 26 years of age? _____

Thank you very much for taking the time to answer our questions. Good-bye.

To be completed by interviewer at the end of the interview

interview end time _____
(24 hr clock)

interviewer's age _____

interviewer's sex 1. *male*
 2. *female*

contacts/attempts necessary to conduct interview