

THE EFFECT OF SEXUAL AROUSAL ON RISKY DECISION-MAKING

GILLIAN KENNEDY

Bachelor of Arts (Honours), Concordia University, 2008

A Thesis

Submitted to the School of Graduate Studies
of the University of Lethbridge
in Partial Fulfillment of the
Requirements for the Degree

MASTER OF SCIENCE
(Psychology)

Department of Psychology
University of Lethbridge
LETHBRIDGE, ALBERTA, CANADA

© Gillian Kennedy, 2010

ABSTRACT

The Effect of Sexual Arousal on Risky Decision-Making

Sexual arousal is likely an important situational factor in date rape. Research shows that sexual arousal increases self-reported willingness to engage in sexually aggressive behaviour. Chapter One reviews the situational, perpetrator, and victim characteristics of date rape. Chapter Two describes an experiment that examined the effect of sexual arousal on measures of decision-making, including Risky Choice Task, Balloon Analogue Risk Task, Future Discounting, and on a measure of Viewing Time. Participants were 20 heterosexual men and 22 heterosexual women 18 to 25 years old. Results revealed that sexually aroused women preferred higher variance options compared to women who were not, and the opposite was observed for men. No other significant effects were observed. Chapter Three describes Experiment 2 which included another neutral condition and a measure of sexual decision-making. Results revealed no effect of condition on behavioural or sexual decision-making, nor on viewing times. Chapter Four provides a general discussion and directions for future research.

ACKNOWLEDGMENTS

This thesis would not have been completed without the help of many people to whom I am very grateful. First and foremost, I would like to thank my supervisor, Dr. Martin Lalumière, for his supervision, support, and contribution to this project. Thank you for providing me with the guidance I needed to start and finish this thesis, and thank you for never giving up on me.

I would also like to thank Sandeep Mishra for sharing his expertise in risk-taking and for his incredible programming skills. This project would not have happened without you. In fact, the participants would have likely stared at a blank computer screen without your help.

To Dr. Scott Allen and Dr. Matthew Tata, thank you for your helpful comments and assistance throughout this project.

To the members of the Lalumière lab who helped me with the project, thank you. In particular, thank you to Kelly Suschinsky for always answering my questions, keeping me sane, and providing support and guidance throughout this project. To Bradley Duce, thank you for being an excellent research assistant. I appreciated the help in running all 105 participants. To Annabree Fairweather, thank you for your support and general help throughout the two years.

I would also like to express my gratitude to the research participants who made this research possible.

To my friends, I truly appreciate your emotional support through the ups and downs! In particular, Lesley Terry, Katie Burles, Kelly Suschinsky, Danya Petraznyk, JoAnn Head, Marshall Fountain, Galit Zeira, Erin Rutledge, Jennifer Arthur, Emilie Minssieux, and my wonderful friends at The Studio. To my cohort, congrats everyone and thanks for all the support: Mitch Lapointe, Kasia Pisanski, Brandon Yardy, Annabree Fairweather, and Lesley Terry.

To my family, thank you for always listening and encouraging me, and for making my decisions harder and easier. You helped me so much, even from such a far distance. Mum, thanks for wishing on that wall in Turkey. Wish granted! A special thanks to my tolerant brother Matt who devoted much of his time to reading and editing my thesis.

To Marc-André Gignac, you are my rock. I can never thank you enough for all the times you helped me, listened to me, and supported me. I also will never forget how you uprooted your life to come join me in Alberta.

I would also like to acknowledge the financial support of the Social Sciences and Humanities Research Council of Canada (CGS Scholarship), Fonds de Recherche sur la Société et la Culture, Québec (Bourse de Maîtrise en Recherche), the University of

Lethbridge (Admission scholarships and teaching assistantships) and the Sexual Medicine Society of North America (Scholars in Sexuality Research Grant).

TABLE OF CONTENTS

Title Page.....	i
Signature Page.....	ii
Abstract.....	iii
Acknowledgements.....	iv
Table of Contents.....	vii
List of Figures.....	viii
Chapter 1. General Introduction to Date Rape.....	p. 1
Chapter 2. Experiment 1: The Effect of Sexual Arousal on Decision Making.....	p. 12
Chapter 3. Experiment 2: The Effect of Sexual Arousal on Behavioural and Sexual Decision Making	p. 60
Chapter 4. General Discussion.....	p. 91
References	p. 101
Appendix 1. Recruitment Advertisements.....	p. 115
Appendix 2. Risky Choice Task.....	p. 118
Appendix 3. Future Discounting.....	p. 120
Appendix 4. Questionnaires.....	p. 122
Appendix 5. Consent Form.....	p. 145
Appendix 6. Script for Describing Study to Participants.....	p. 149
Appendix 7. Debriefing Form.....	p. 154
Appendix 8. Sexual Decision-Making Questions.....	p. 156

List of Figures

Chapter 2.

- Figure 2.1. Means and standard errors for maximum sexual arousal as a function of sex and condition.....p. 37
- Figure 2.2. Means and standard errors for the risky choice task as a function of sex and condition.....p. 38
- Figure 2.3. Means and standard errors for balloon analogue risk task as a function of sex and condition.....p. 40
- Figure 2.4. Future discounting mean rates and standard errors of small reward size as a function of sex and condition.....p. 41
- Figure 2.5. Future discounting mean rates and standard errors of medium reward size as a function of sex and condition.....p. 43
- Figure 2.6. Future discounting mean rates and standard errors of large reward size as a function of sex and condition.....p. 44
- Figure 2.7a. Male mean viewing times and standard errors as a function of Tanner stage and sex of pictures.....p. 47
- Figure 2.7b. Female mean viewing times and standard errors as a function of Tanner stage and sex of pictures.....p. 48

Chapter 3.

- Figure 3.1. Means and standard errors for maximum sexual arousal as a function of sex and condition.....p. 66

Figure 3.2. Means and standard errors for risky choice task as a function of sex and condition.....p. 68

Figure 3.3. Means and standard errors for balloon analogue risk task as a function of sex and condition.....p. 70

Figure 3.4. Future discounting mean rates and standard errors of small reward size as a function of sex and condition.....p. 71

Figure 3.5. Future discounting mean rates and standard errors of medium reward size as a function of sex and condition.....p. 73

Figure 3.6. Future discounting mean rates and standard errors of large reward size as a function of sex and condition.....p. 74

Figure 3.7a. Male mean viewing times and standard errors as a function of Tanner stage and sex of pictures.....p. 77

Figure 3.7b. Female mean viewing times and standard errors as a function of Tanner stage and sex of pictures.....p. 78

Figure 3.8. Means and standard errors for sexual decision-making as a function of sex and condition.....p. 79

CHAPTER ONE

General Introduction to Date Rape

Date rape is a prevalent and serious problem for women. In order to help understand the phenomenon and prevent future occurrences, researchers have examined different factors that may be involved in date rape. Research has identified perpetrator and victim characteristics, including personality traits, attitudes, and sexual histories. Studies have also examined different situational factors that seem to play a role in date rape including alcohol use, sexual arousal, and the dating context. In this chapter, I provide a brief review of the main research findings on the incidence of date rape, consequences for the victim, characteristics of perpetrators and victims, and the situational factors involved in date rape.

Incidence and Consequences of Date Rape

Drieschner and Lange (1999) suggested that most incidents of sexual coercion involve a man and a woman who are acquainted or dating, leading to the use of the term *date rape*. Date rape is defined as the act of non-consensual sex by force or threat of force between two people who are dating or acquainted (Marx, Van Wie, & Gross, 1996).

Koss, Gidycz, and Wisniewski (1987) found that approximately 28% of college women report being victims of rape or attempted rape, since the age of 14. Koss et al. also found that about eight percent of men report perpetrating an act that meets the definition of rape.

Rapaport and Burkhart (1984) found that approximately 15% of college men report obtaining intercourse with a woman who was unwilling. Because the majority of victims are between the age of 16 and 25, most studies have examined date rape in college student samples (Marx et al., 1996).

Date rape can lead to both physical and psychological consequences for the victim. The National Institute of Justice Report on female victimization revealed that the most common form of date rape was penile-vaginal intercourse (Gonzales, Schofield, & Schmitt, 2006). This form of date rape can lead to an unwanted pregnancy for the female victim (Gottschall & Gottschall, 2003). The aggression involved when sex is forced can cause physical injuries, ranging from scratches and bruises to broken bones or dislocated joints (Gonzales et al., 2006). However, the most common form of injury from date rape is psychological (Gonzales et al., 2006). Following a rape, women can experience a variety of mental health problems including anxiety, depression, obsessive-compulsive disorder, phobias, and sexual dysfunctions (Boudreaux, Kilpatrick, Resnick, Best & Saunders, 1998; Emm & McKenry, 1988). Gonzales et al. reported that 35% of women who were victimized in the United States reported seeking help from a mental health professional following the rape.

Characteristics of Date Rapists

Kanin (1984) explored perpetrator characteristics in a sample of 71 self-identified date rapists. He found that men who committed date rape were quite different from men who committed other forms of rape. The findings revealed that three-quarters of his sample

were from middle class backgrounds and 82% were college students. The majority had never been in the criminal justice system, were not sexually deprived and, in fact, had dated more often and had more sexual experience than a control group of men who had not raped. The date rapists also seem to report being less satisfied with the frequency of their sexual experiences than non-rapists. All 71 men reported that the rape was not premeditated, but was preceded by some consensual sexual activity.

Research has provided further evidence for the association between the sexual histories of sexually aggressive men and date rape. Koss and Dinero (1989) found that sexually aggressive men had their first sexual experience at a younger age than men who were not sexually aggressive. Furthermore, early and frequent dating and sexual experiences were found to be positively related to sexual aggression in a study conducted by Abbey, McAuslan, and Ross (1998). Abbey and McAuslan (2004) observed that men who had committed date rape had a more positive attitude towards impersonal sex than did men who had not committed sexual aggression (see also Lalumière & Quinsey, 1996).

There are other individual characteristics associated with date rape. Rapaport and Burkhart (1984) found that lack of responsibility, lack of social conscience, and aggressive values towards women were associated with sexual coercion in dating relationships. Malamuth, Sockloskie, Koss, and Tanaka (1991) tested a model of the characteristics of sexual aggressors: they found that factors such as hostile masculinity and sexual promiscuity were characteristics of men who have engaged in sexual aggression. In another study, beliefs in traditional gender roles were found to be

associated with a history of sexual aggression in a sample of college men (Loh, Gidycz, Lobo, & Luthra, 2005).

Rape myth acceptance is also believed to be involved in date rape. Rape myths are beliefs about rape that place blame on the victim and allow perpetrators to justify their behaviour, and are found to be widely held by college men (Burt, 1980; Muelenhard & Linton, 1987). If an individual holds strong rape myth beliefs, they are more likely to be willing to commit date rape (Bohner, Jarvis, Eyssel, & Siebler, 2005; Malamuth, 1981). Muelenhard and Linton found that sexually aggressive men are more likely to accept rape myths compared to nonsexually aggressive men. Other research has observed that a history of sexually coercive behaviour led to a stronger association between rape myth acceptance and rape proclivity (Bohner et al., 2005).

There also seem to be differences between men who have committed date rape only once compared to repeat offenders. In particular, a study has shown that repeat offenders had more extreme scores on sexist gender role beliefs, hostile attitudes towards women, drinking prior to sexual activity, adolescent delinquency, and acceptance of using verbal pressure to obtain sex, compared to one-time offenders (Abbey & McAuslan, 2004). Interestingly, the researchers also reported that the one-time offenders felt more remorse for their past sexual aggression, and believed that they had learned from the experience, whereas the repeat offenders did not seem to feel any guilt for their past transgressions.

Sexual abuse in childhood is related to later perpetration. One particular study conducted by Casey, Beadnell, and Lindhorst (2009) demonstrated that men who had experienced sexual abuse as a child reported significantly higher rates of sexual coercion in adulthood. Jespersen, Lalumière, and Seto (2009) conducted a meta-analysis of 17 studies to examine whether a history of sexual abuse was related to later sexual offending: they found that sexual offenders had five times greater odds of having experienced sexual abuse compared to other types of offenders.

Victim Characteristics

Risk factors and characteristics of victims of date rape have also been identified. Liberal sexual values, earlier age of first intercourse, and more sexual partners are associated with an increased risk of sexual victimization (Koss & Dinero, 1989). Victims of sexual coercion have been found to engage in more casual sex prior to the incident (Testa & Dermen, 1999; Vicary, Klingaman, & Harkness, 1995). Furthermore, Fisher, Cullen, and Turner (2000) revealed that being unmarried leaves a woman at higher risk of being sexually assaulted. The highest concentration of victims are either in high school or college, are less likely to be virgins, and have an earlier age of menarche (Kanin and Parcell, 1977; Vicary et al., 1995). Kanin and Parcell also found that women who were sexually aggressive toward men were more likely to be victimized than non-sexually aggressive women.

The dating behaviours of women also seem to play a role in victimization. Harrington and Leitenberg (1994) found that 55% of victims reported being at least somewhat drunk at

the time of the date rape. Other researchers have demonstrated that women who drink enough to get intoxicated or who have consumed some alcohol are at a higher risk of sexual victimization than those who do not (Fisher et al., 2000; Testa and Dermen, 1999).

Along with dating behaviours, a woman's clothing seems to play a role in how men perceive women sexually. After exposure to photographs of women in either revealing or not revealing clothing, men were asked to report on their perceptions of the women targets (Abbey, Cozzarelli, McLaughlin, & Harnish, 1987). The findings revealed that men rated women who wore more revealing clothing as more seductive, sexy, and promiscuous. The men also rated the women dressed in more revealing clothes as less sincere and considerate than women dressed in less revealing attire. These results suggest that men may misinterpret a woman's sexual intent based on how revealing her clothing is and may misperceive her interest in sexual activity.

Sexual assault experience in adulthood has been shown to be associated with prior victimization (Gidycz, Coble, Latham, & Layman, 1993). For example, Humphrey and White (2000) found that being a victim of sexual assault before the age of 14 nearly doubles the risk of later adolescent victimization. They also found that the more severe the assault in adolescence, the greater the risk of victimization in college women. Fisher et al. (2000) found that having been a victim of rape before the start of the school year was associated with an increased risk of sexual victimization. A recent study by Yeater, Treat, Viken, and McFall (2010) found that women who had been previously sexually assaulted perceived fewer situations as risky, compared to women who were not victims.

In fact, victims required more risk information than non-victims in order to recognize a high risk situation.

Combs-Lane and Smith (2002) examined different cognitive and behavioural factors that may be associated with sexual victimization in women. They found that alcohol use and intentions to engage in risky behaviours were found to be related to victimization and actual engagement in risky sexual and social behaviours. Similarly, Testa and Dermen (1999) found that victims reported high sex-related alcohol expectancies, including decreased sexual inhibition, sexual enhancement (the belief that alcohol improves the ability to have sex), and increased likelihood of sexual activity compared to non-victims.

Situational Factors

Muehlenhard, Friedman, and Thomas (1985) explored situational factors that men rated as making rape more justifiable. The study found that when the couple went to the man's apartment, when the woman initiated the date, or when the man paid all the dating expenses, men felt that the woman was leading the man on and therefore rated the rape as more justifiable. In a different study, Muehlenhard and Linton (1987) found that date rape actually happened significantly more often when the man initiated the date, provided the transportation, and spent money during the date.

There is also evidence to suggest that some incidents of date rape occur after a certain amount of consensual sexual activity has occurred. Kanin (1984) observed that all date rapists reported having some consensual sexual activity prior to the date rape. Eighty-

three percent of the men reported some sort of genital play, and 68% said the sexual activity was reciprocal. Muehlenhard and Linton (1987) found that kissing and fondling in a car was associated with an increased risk of a sexually aggressive date. In a review of the available literature on date rape, Marx et al. (1996) found supporting evidence for the occurrence of consenting sexual contact prior to the incident of sexual aggression.

The research on sexual intimacy prior to date rape suggests that at some point during the date, there is a miscommunication between the protagonists. Muehlenhard and Linton (1987) found that both men and women report being led on during sexually aggressive dates. Specifically, women reported that they had wanted sexual contact less on their sexually aggressive dates than on their recent dates, whereas men reported that women on their sexually aggressive dates wanted sexual intimacy more than women they had recently dated. Osman (2003) examined men's perceptions of rape based on whether they believed that women used token resistance during an intimate interaction—that is, when women say “no” they really mean “yes.” The researchers found that men who believed women used token resistance reported that women who said no to intercourse really meant yes and had a poor perception of rape, whereas men who did not believe that women used token resistance believed that when the woman said no, it meant no, and any further sexual behaviour from the man was perceived as rape.

As mentioned previously, alcohol consumption is a frequently reported event in date rape. Brecklin and Ullman (2002) found that 64% of offenders used alcohol prior to assaults according to reports from victims. Muehlenhard and Linton (1987) also found that heavy

use of alcohol during a date was associated with sexual aggression. Further, the findings also suggested that alcohol reduces men's inhibitions and decreases women's ability to resist advances. Alcohol use has also been found to have an effect on the severity of the sexual assault committed: self-reported alcohol use by the perpetrator and by the victim prior to the incident was related to more severe sexual aggression than when alcohol was not involved.

Despite the numerous studies of alcohol consumption before or during incidents of date rape, the relationship between alcohol and sexual aggression remains unclear (Abbey, 1991). Abbey (2002) reviewed the literature on alcohol's effect on aggressive and sexual behaviour and found that low empathy, high impulsivity, and rape myth beliefs were associated with alcohol's effects on sexual aggression in college populations. The review also suggested that men believe that drinking alcohol will make them more powerful, aggressive, and sexual. However, most studies examining the link between alcohol and sexual aggression have methodological limitations that prevent a conclusion regarding the causal effects of alcohol consumption.

Testa (2002) conducted a literature review in order to further examine the link between alcohol and sexual aggression. The review evaluated three different types of research: associational studies, event-based studies, and experimental studies. Findings from the review suggest that there is an association between alcohol and sexual aggression based on studies that examined typical alcohol use and self-reported history of sexual aggression; however, the correlation was modest and causality cannot be determined.

Event-level studies also found that the majority of sexually aggressive incidents involved alcohol, but other situational characteristics seemed to play a role in whether date rape occurred or not, such as victim characteristics, offender aggression, and the relationship between the victim and the offender. Controlled experimental studies, in which alcohol consumption is manipulated, found evidence that men under the influence of alcohol will wait longer to stop an incident of date rape (when listening to an audiotape story portraying a date rape scenario), will misinterpret a woman's sexual arousal, and will self-report a higher likelihood of sexual aggression in response to hypothetical scenarios. These studies also find an interaction between alcohol expectancies and actual alcohol consumption. Overall, the review suggests that alcohol plays some role in sexual aggression, however, the actual causal mechanism remains unclear.

Sexual arousal is another situational factor that has been examined in the research on sexual aggression. The research suggests that sexual arousal is in part affected by other situational factors such as perceived consent, arousal of the female, and victim blame (Byers, 1988; Malamuth & Check, 1980; Sundberg, Barbaree, & Marshall, 1991). Malamuth (1986) examined sexual arousal to stimuli depicting sexual aggression and found that it was an important predictor of sexual aggression against women. Although it seems that sexual arousal must play a role in date rape, research for the most part has mainly focused on the effects of different variables on sexual arousal, such as the effect of alcohol on sexual arousal. A paucity of research has examined how sexual arousal affects behaviour. The connection between sexual arousal and behaviour is crucial to the development of an understanding of how sexual arousal plays a role in date rape,

independent of other contextual, personality, or situational variables. This connection is examined in detail in Chapter Two.

In conclusion, many studies have attempted to understand the different factors involved in date rape and other sexually aggressive situations. The studies have revealed that there are various characteristics observed in both the perpetrators and victims of date rape, as well as numerous situational factors that appear to play a role. The most reliable situational factors appear to be alcohol use, prior consensual sexual activity, and certain aspects of the dating situation such as location. Unfortunately, there is still much that is unknown about date rape and how the different factors play a role and interact together. Therefore, future studies should continue to examine the role of such situational factors as alcohol and sexual arousal to fully understand the date rape situation.

CHAPTER TWO

Experiment 1: The Effect of Sexual Arousal on Decision-Making

While it is difficult, if not impossible, to directly observe the events that lead to date rape, it is important to develop a sound understanding of the situational factors that may be involved. Researchers have suggested that the decision to engage in date rape is often made in the “heat of the moment”—under the influence of the individual’s immediate motivational state, such as being sexually aroused or intoxicated by alcohol (Ariely & Loewenstein, 2006; Bancroft et al., 2004). Within the broad context of the date rape literature outlined in Chapter 1, my interest is in the motivational effect of sexual arousal on risky decision-making. The research leading to this question is discussed below in the first part of this chapter. In the second part, I describe an experiment examining the role of sexual arousal in decision-making.

Alcohol and Sexual Arousal

Numerous studies have examined alcohol consumption—one of the most widely studied and well-accepted risk factors for date rape—in combination with sexual arousal. Davis, Norris, George, Martell, and Heiman (2006) examined the influence of sexual arousal, alcohol, and violent pornography on the self-reported likelihood of engaging in sexually aggressive behaviour. The findings revealed that sexual arousal was an important component of a male’s propensity to engage in sexual aggression after exposure to violent pornography. The researchers also suggested that sexual arousal was influenced by alcohol intoxication, whereby alcohol facilitated men’s self-reported sexual arousal to

violent sexual materials. However, the experimental procedure did not allow researchers to disentangle the effect of alcohol or sexual arousal on hypothetical decisions to engage in sexually coercive behaviour, because participants were both intoxicated and aroused in the same experimental condition.

MacDonald, MacDonald, Zanna, and Fong (2000) examined the effects of alcohol, sexual arousal, and intentions to engage in unsafe sex. Participants were asked to report how sexually arousing they found the scenario in the video, and were divided by a median split into either low arousal or high arousal groups. Individuals who reported low sexual arousal did not make different responses when sober or intoxicated, whereas participants who were highly aroused and intoxicated reported more intentions to engage in sexual intercourse without protection than did those who were not sexually aroused. These results suggest that sexual arousal is an important factor in a person's decision to engage in sexually risky behaviour. Still, considering that sexual arousal was not manipulated in this study, it is once again difficult to determine the causal effects of sexual arousal.

Research on the influence of alcohol on decision-making has shown evidence of a reduced ability to attend to multiple cues and a tendency to focus on the most salient aspects of the immediate situation, a phenomenon known as "alcohol myopia" (Steele & Josephs, 1990). For example, individuals who are under the influence of alcohol may focus their attention on their attraction to another person more than the person's resistance to sexual advances. Studies that have examined alcohol and sexual arousal have provided support for alcohol myopia theory. More specifically, alcohol leads individuals to focus

on the most salient cues in the environment, focusing on feelings of arousal instead of the potential risks of engaging in risky sex (Davis et al., 2006; MacDonald et al., 2000).

George et al. (2009) examined the effects of alcohol intoxication on sexual arousal and on risk-taking. Their findings revealed that alcohol intoxication led to increased subjective sexual arousal in both men and women. The increase in sexual arousal led to an increase in self-reported likelihood of engaging in unprotected sex in both men and women. Furthermore, alcohol's impact on physiological arousal in both men and women had no influence on their intentions to engage in unsafe sex. In fact, only subjective sexual arousal produced by alcohol intoxication led to riskier decision-making. The results suggest that perceiving oneself as sexually aroused is the key mechanism in understanding how alcohol affects sexual risk-taking. The authors suggested that alcohol leads to a focus on one's sexual arousal which motivates the individual to take sexual risks. Therefore, the myopic effect of alcohol is on their subjective sexual arousal.

Motivational States and Sexual Arousal

Research on visceral states demonstrates that when a person is in a "cold" state (e.g., not sexually aroused) they are less likely to appreciate the influence of "hot" states on their own behaviour, or the behaviour of others (Nordgren, van der Pligt, & van der Harreveld, 2007). Nordgren et al. examined how current visceral states influence evaluations of past behaviour in men. They found that men who were not sexually aroused had less empathy for their own past sexually regrettable behaviour than did men who were in an aroused state. This suggests that in order to fully understand or appreciate impulsive behaviour,

the current visceral state must be the same as the visceral state when the behaviour occurred. Along similar lines, Ditto, Pizarro, Epstein, Jacobson, and MacDonald (2006) found that participants viewing a video of two attractive individuals deciding whether to have sex with or without a condom were more likely to say that they themselves would make the risky decision in that situation compared with participants who simply read a description of that scenario. Participants in the video condition reported it as more sexually arousing than those in the reading condition. Therefore, being in an aroused state may lead individuals to make more sexually risky decisions.

Taking into consideration the effect of visceral states on decision-making, Loewenstein, Nagin, and Paternoster (1997) examined expectations of sexual forcefulness in a sexually aroused and nonaroused state. Participants were asked questions regarding their perceptions of the costs and benefits of sexually aggressive behaviour, their level of arousal, and a prediction of how aggressively they would act in the date rape scenario after either being exposed to erotic material or not. The findings demonstrated that participants who were in the sexually aroused condition were more likely to imagine that they would engage in sexually aggressive behaviour. Furthermore, the results indicated that the effect of sexual arousal on decision making was not mediated by the perceived costs of engaging in sexual aggression.

In an effort to better understand the influence of sexual arousal on decision making in the context of sexual aggression, Bouffard (2002) presented male participants with sexually arousing stimuli. After viewing the stimuli, participants were asked to read a hypothetical

date rape scenario and then estimate their hypothetical likelihood of engaging in various sexually coercive acts. The author's findings revealed that higher self-reported sexual arousal led to an increase in the self-reported likelihood of engaging in sexually coercive behaviours. Furthermore, the results demonstrated that participants believed that their perceptions of sexual pleasure were an important benefit, while having no impact on their perception of the costs. This supports the idea that visceral states shift attention in the direction of the individual's current mood, and that sexual arousal may have an impact on sexual decision-making. However, the study's main limitation was that the sexual stimuli were not tested prior to the experiment, and thus their effects on arousal were unclear. In fact, the participants did not report as high sexual arousal to the erotic material as the experimenter had anticipated.

Ariely and Loewenstein (2006) also examined the possibility that sexual arousal may affect judgment in a similar way as alcohol. Participants were asked to masturbate while presented with sexual photos, and responding to sexually-relevant questions. The results suggest that sexual arousal led participants to find activities that were previously not sexually appealing more attractive, and those activities that were previously appealing became even more attractive. Also, the increase in sexual motivation caused by sexual arousal seemed to decrease the importance participants gave to other considerations such as behaving ethically to a partner or practicing safe sex. Thus, sexual arousal seemed to narrow a participant's focus on their sexual desire, which caused goals other than self-fulfillment to become blocked by the motivation to have sex, a kind of "motivational myopia." Participants conducted the experiment in the privacy of their own residence,

thus leaving a possibility that instructions were not carried out carefully. Therefore, this study needs to be replicated in a laboratory setting where experimental conditions can be carefully manipulated.

Blanton and Gerrard (1997) examined the effect of sexual motivation on men's perception of the risk of sexually transmitted diseases, though it did not analyse sexual arousal directly. In the study, participants viewed photographs previously rated as either high or low in sex appeal and were provided with some information regarding the woman and her sexual history. The results demonstrated that men judged the risk of engaging in unprotected sex as low when the female was high in sex appeal. Conversely, when the female was rated as low in sex appeal, the men did not judge the risk of unsafe sex as low. The results suggest that the motivation to have sex caused by the photos of highly appealing women led the men to either have a more difficult time perceiving the risks of unsafe sex or of finding ways to justify the risks.

Attention and Sexual Arousal

Emotionally salient environmental stimuli have the ability to capture and maintain attention (Anderson & Phelps, 2001). Considering this, studies have been conducted in an effort to understand how sexual arousal affects perceptual judgements. In a study conducted by Most, Smith, Cooter, Levy, and Zald (2007), erotic distractors that were rated as both pleasing and arousing led to an "emotion-induced blindness" whereby participants had brief deficits in the processing of targets. Furthermore, the effects of the erotic distractors were stronger than those caused by negative images, which were images

of gore, threatening animals, and violence. Other research supports this finding, in which sexual words used as distractors led to a decrease in target accuracy (Arnell, Killman & Fijavz, 2007). Even when prompted to ignore the distractor and focus on the specific target, a participant's attention was still involuntarily captured at the expense of target accuracy. Consistent with the study by Most et al., negative and threatening stimuli were not perceived as distracting in comparison with the sexual stimuli, and thus did not yield significant decreases in accuracy (Arnell et al., 2007). The studies on how sexual arousal affects perceptual judgements suggest that sexual cues lead individuals to pay less attention to other cues in the environment unrelated to their arousal.

Ward et al. (2008) provided further evidence for the role of salient cues and their effects on behaviour. They found that physiological arousal from exercise can either promote or inhibit aggression based on the cues in the environment, something the authors referred to as attentional myopia. Specifically, participants who were both highly aroused and exposed to aggression-promoting cues were more likely to be aggressive towards a confederate than non-aroused participants. Furthermore, high arousal paired with aggression-inhibiting cues led to a decrease in aggression. The findings support the attentional myopia model whereby salient cues in the environment narrow attention on those cues when a person is physiologically aroused. Interestingly, the cues used in the study were either aggression promoting or inhibiting cues, which are somewhat unrelated to the exercise-induced arousal. This may suggest that the cues in the environment do not necessarily have to be in the same domain as the form of arousal the individual is experiencing.

Viewing time is another way of examining how attention can be captured by salient cues in the environment. Viewing time is a measure of sexual interest that involves examining how long individuals look at photos of different targets (Harris, Rice, Quinsey & Chaplin, 1996). Specifically, people are more drawn to photos of attractive people than they are to unattractive people. For example, Zamansky (1956) found that homosexual men spend more time looking at their preferred sexual partners than at their nonpreferred sexual partners, women. Similarly, the study found that heterosexual men preferred to look longer at women than men. Other research has shown that college males will look increasingly longer as photos increase in pornographic content, suggesting that men will allocate more attention to photos of greater sexual salience (Lang, Searles, Lauerman, & Adesso, 1980). Interestingly, the study also included alcohol expectancies and consumption, and found that participants who believed they were under the influence of alcohol reported greater sexual arousal in response to the photos.

Sexual Cues and Decision-Making

Sexual cues have been found to impact concrete forms of decision-making. Wilson and Daly (2004) asked participants to rate pictures of women as either appealing or unappealing. Following the picture task, participants engaged in a monetary choice task where they were offered either a smaller sum of money tomorrow or a larger sum of money after a specified longer delay. Results demonstrated that men discounted the future more after rating the appeal of attractive women than after rating unappealing women. The authors suggested that the photos of the attractive women were mildly arousing, and

provided cues of a sexual opportunity. In line with the finding that exposure to attractive women affects men's decision-making, Van den Bergh and Dewitte (2006) demonstrated that men were more likely to accept unfair offers in an ultimatum game after exposure to sexual cues (images of sexy or young women). Thus, sex-related cues have the ability to impact decision-making in men. However, it is unclear whether these photos induced sexual arousal in the men, so the impact of arousal on these objective measures of decision-making needs to be further examined.

Other studies have examined whether risky decision-making is associated with cues of mating opportunities. Baker and Maner (2008) tested whether risk-taking is part of a male strategy of mate acquisition. Men were either exposed to photos of attractive or unattractive women and then completed a measure of mating motivation. Following this part of the experiment, the participants played a modified blackjack game where higher risk was associated with choosing to take another card. The findings revealed that a higher desire to find a mate was related to risky decision-making in men, but only when they were exposed to attractive women. The authors believe that the attractive photos acted as cues of mating opportunities. In another study, Baker and Maner (2009) examined whether risk-taking is associated with sexual/romantic arousal, and whether contextual factors such as partner availability are related to risk-taking. Participants watched a video of a female confederate talking about her life, including whether she was in a relationship or not. Following the video, participants performed the Balloon Analogue Risk Task, a behavioural measure of risk-taking. Findings revealed that sexual arousal was associated with risk-taking in men who believed that there was a romantically

available woman watching their performance. Although the results suggest that there is a link between sexual arousal and risk-taking, the researchers did not directly manipulate sexual arousal, and, consequently, cannot determine whether sexual arousal was in fact what influenced the risk-taking behaviour.

Individual Characteristics and Sexual Risk-Taking

Studies have attempted to identify the personality and individual characteristics associated with risk-taking, including sexual risk-taking. Numerous studies have demonstrated that impulsivity is associated with sexual risk-taking, including unsafe sex and having multiple sex partners. Arnold, Fletcher, and Farrow (2002) showed that individuals high in sensation-seeking had more sexual partners, had more permissive attitudes about sex, and were more likely to have sex without protection. A quantitative review of 53 studies found that sensation seeking predicted sexual risk-taking such as unprotected sex, sex with multiple partners, and high-risk sexual encounters (Hoyle, Fejfar & Miller, 2000). The review also revealed that impulsivity was correlated with all forms of sexual risk-taking. Therefore, sensation seeking and impulsivity are personality characteristics that are associated with an increase in risky sexual behaviour.

Mating effort is another relevant individual characteristic. Lalumière and Quinsey (1996) found that self-perceived mating success and a history of casual sex was related to prior sexually coercive behaviours. Lalumière, Harris, Quinsey, and Rice (2005) suggested that acquaintance rape may be part of high mating effort. Compared to men who have not committed date rape, men who have committed date rape have more sexual experience

and a younger age of first sexual intercourse, both indications of high mating effort. Interestingly, Kanin (1984) found that although men who had committed sexually aggressive acts had more sexual experience, they reported being less satisfied with their sexual life than non-aggressive men, providing further support for the possibility that men who commit sexual aggression focus on acquiring a large number of partners.

It would be worthwhile to examine whether individuals high in impulsivity or mating effort take more sexual risks because they are more affected by sexual cues. Specifically, do cues of sexual opportunities and arousal affect individuals high in mating effort and/or impulsivity more than individuals who are not high in these two characteristics?

Decision-Making and Sexual Arousal in Women

While several studies provide support for the notion that sexual arousal has a similar effect on decision-making as alcohol, it would be important to test this hypothesis further. In addition, very few studies have considered women, therefore it remains unknown whether sexual arousal has a similar effect on women. Based on sexual selection theory, males and females employ different mating strategies. The theory suggests that women need to be more selective about mates than men, due to their greater parental investment in bearing and rearing children (Buss, 2006). Ancestral women who were less selective would have had lower reproductive success than women who carefully selected a mate who would provide protection, support, and good genes. Conversely, men have lower parental investment and compete with other men for access to women, and benefit from taking risks in their competition with other men and in order to attract mates (Symons,

1979). Although sexual arousal is an important component of reproduction (Levin, 2005), based on the different mating strategies of men and women—and factoring in the higher costs associated with mating in women—it would be expected that women’s decision-making would be less affected by sexual arousal than men’s.

Indirect effects of sexual arousal on rape-myth congruent beliefs in women were studied by Davis et al. (2006). The researchers examined the effects of moderate alcohol dose and alcohol expectancies on women’s reactions to violent pornography. The results revealed that alcohol intoxication decreased a woman’s likelihood of labelling a violent pornographic sexually aggressive scenario as rape. Furthermore, the participant’s sexual arousal and judgments indirectly affected their perceptions of the event as rape. Similar to men and in accordance with alcohol myopia theory, alcohol seemed to narrow focus on the sexual cues rather than on the violent or inhibitory cues. That said, it is still unclear whether sexual arousal without the influence of alcohol would have similar effects on the perception of sexual aggression in violent pornography. Furthermore, the women’s expectancies about the influence of alcohol on sexuality may have further influenced their judgements as less aggressive than they were. Another limitation of the study was the presence of alcohol in the pornographic scenario, which may have further enhanced alcohol expectancies on sexual arousal. Indeed, Maisto, Carey, Carey, and Gordon (2002) found a relationship between alcohol expectancies and perceived likelihood of positive consequences of having sex with a new partner. The authors suggested that future research should examine sexual arousal independently, because this important situational variable has been neglected in studies of risky sexual decision-making.

Norris, Masters, and Zawacki (2004) reviewed the role of sexual arousal as a situational variable in the decision to practice safe sex. The researchers explained that it is very likely that women make sexual decisions when already in an aroused state. Summarizing the research, sexual arousal seems to play a role in women's decisions to practice safe sex. However, due to the scarcity of research in this area, the authors referred to studies about men's perceptions of women engaging in safe sex, as well as sexual arousal's effect when participants are under the influence of alcohol. The few relevant studies they did examine suggest that sexual arousal appears to decrease condom use and the perception of risk of getting a sexually transmitted infection among women. This finding was obtained by Bodero, Moore, and Rosenthal (1992) who determined that an increase in sexual arousal decreased both male and female self-reported likelihood of using a condom.

Considering that research seems to suggest that sexual arousal does have an effect on behaviour and is a relevant situational factor in a date rape context, this experiment's main objective was to examine whether sexual arousal influences risky decision-making in a date rape analogue, without the influence of other situational variables such as alcohol use. Based on the potential consequences, the decision to commit date rape is a risky choice. Considering the abstract nature of asking hypothetical questions, Experiment 1 examined the effect of sexual arousal on objective, concrete forms of decision-making. This real-world risk-taking will allow for a greater understanding of the effect of arousal on the decision-making process.

I examined whether sexual arousal leads people to make more risky decisions. Sexual arousal was manipulated by exposing participants to erotic and non-erotic videos. The second objective of Experiment 1 was to investigate whether sexual arousal influences participants' looking time to people of their preferred gender. The third objective was to examine whether characteristics such as mating effort, impulsivity, and a history of sexual coercion are related to how sexual arousal affects decision-making. Specifically, it was hypothesized that:

- (I) Men will engage in more risky decision-making when exposed to sexually arousing cues, whereas women's decision-making will not be affected by the sexually arousing cues.
- (I) Men's attention (looking time) to preferred partners will be increased by exposure to sexually arousing cues, but women's attention will not.
- (II) Individuals who are high in mating effort and impulsivity, as well as those with a history of sexual coercion, will be more affected by the sexual cues and will have more risky decision-making than those low on these characteristics.

OVERVIEW OF EXPERIMENT 1

Twenty men and twenty-two women were presented with either erotic or non-erotic video clips and were then asked to complete three decision-making tasks and a viewing time task. Participants also completed several questionnaires to assess individual characteristics (i.e. impulsivity) and histories of sexually coercive behaviour. The selected decision-making tasks for this study measure real-world risk-taking, preference for variable outcomes and future discounting. Date rape can be viewed as a preference for

higher variance options. There is more possible variance in the outcome and consequences of committing date rape compared to non-coercive courtship, and a higher variance option is the more risky choice. Date rape can also be viewed as a form of time discounting. When committing date rape, one is taking less now over more later, and is discounting the possibility that the same need could be met in the future while pursuing non-coercive courtship. Therefore, satisfying the need immediately is a risky decision.

METHODS

Participants

Twenty men and twenty-two women were recruited from the University of Lethbridge for the present study. Recruitment included visits to university psychology classes as well as professor-approved announcements on course websites. In addition, advertisements were posted around the University campus (Appendix 1). Participants had to meet the following inclusion criteria in order to be eligible for the study: aged 18-25, self-identified as heterosexual, English speaking, and previous experience with erotic materials.

The average age of the male and female participants was 20.9 ($SD = 2.4$) and 21.1 ($SD = 1.9$) years, respectively. Fifty-five percent of the men reported being single, 35% reported being in a relationship, 5% reported being engaged, and 5% reported being in a common-law relationship. The majority of women reported being in a relationship (55%), 32% reported being single, 5% reported being engaged, and 9% reported being in a common-law relationship. The majority of men and women were Caucasian (75% and 82%,

respectively) and most of the men (90%) and all of the women (100%) were either attending university or had graduated from a post-secondary institution at the time of testing. All participants reported being heterosexual. There were no significant sex differences on any of these biographic characteristics. The majority of women reported using hormonal contraceptives (73%).

Based on a modified version of the Sexual Experiences Survey (Abbey & McAuslan, 2004), the number of participants who reported having used sexually coercive tactics to obtain sexual contact or intercourse was examined. The sexually coercive tactics included using arguments and pressure, showing displeasure, using a position of authority, threatening to use or actually using physical force, and giving the person alcohol or drugs. Seven men and eight women reported that they had used, at least once, sexually coercive tactics to obtain sexual contact or intercourse.

Materials

Audiovisual Stimuli. Two categories of films were used in this study: erotic videos and neutral videos. The erotic videos involved a man and a woman engaging in explicit heterosexual sex. The neutral videos were of a man and a woman interacting socially, with no sexual content. The participants watched four video clips belonging to one of the two randomly assigned conditions. The 90-second erotic video clips were selected based on previous research demonstrating that they elicited high levels of physiological and self-reported sexual arousal in male and female participants (Chivers, Rieger, Latty, & Bailey, 2004; Suschinsky, Lalumière, & Chivers, 2009). The neutral film clips were

chosen for the purpose of this study and were scenes from the movies *Nanny Diaries*, *A Walk to Remember*, *Baby Mama*, and *Once*. Another video viewed by participants was a neutral video to ensure participants returned to baseline after the session (a 120 second video clip from the movie *Son of Rambow*).

Decision-making measures. A measure of preference for variable outcomes called the Risky Choice Task was adapted from Fessler, Pillsworth, and Flamson (2004). Participants were given a series of six choices between two monetary options, one riskier than the other, with equal mean payoff. For example, “would you rather choose \$3.00 guaranteed or a 10% probability of receiving \$30.00?” (Appendix 2). The order of the six choices was randomly determined for each participant. The total number of risky choices chosen (not guaranteed) was computed. This task has been used in other studies in our laboratory and has shown good convergent validity (Mishra, Lalumière, & Williams, 2010).

The Balloon Analogue Risk Task (BART) is a computer-based measure of risk-taking. The task involves pumping air into a computer simulation of a balloon in order to accumulate money, but when the balloon is pumped too high it explodes, and the money that could have been gained is lost. Participants can stop the trial at any time, receiving the amount of money earned for that trial. The balloon popped at a random point of inflation across trials, with an average of 64 pumps before explosion (Lejuez et al., 2002). The mean number of pumps per trials without explosion was computed (the adjusted average). Previous research has examined the test-retest reliability of the Balloon

Analogue Risk Task and found that across sessions the reliability is relatively high, $r = .77$ (White, Lejuez, & De Wit, 2008). Studies have also shown that the BART is a valid measure of risk-taking and correlates with measures of antisocial tendencies, sensation-seeking, impulsivity, and addictive and health behaviours (Hunt, Hopko, Bare, Lejuez, & Robinson, 2005; Lejuez et al., 2002). Also, men tend to score higher on this task than women (Hunt et al., 2005).

An adapted version of a measure of discounting of delayed rewards developed by Kirby and Marakovic (1996) was used. Participants were presented with a series of 27 hypothetical choices between two different monetary sums available after different delays. The more present reward offered smaller sums than the later rewards. Therefore, those who discount the future take the more present and smaller option over the larger, later reward. For example, participants were asked “Would you prefer \$24 today or \$55 in 10 days?” (Appendix 3). Previous research has shown that men are more likely to discount the future than women (Kirby and Marakovic, 1996; Wilson & Daly, 2004). Furthermore, studies using both real and hypothetical rewards have shown a magnitude effect: as the rewards get larger, people’s discount rates decrease (Benzion, Rapoport, & Yagil, 1989; Kirby, 1997). Considering the magnitude effect, the rewards used in the future discounting task were grouped into three reward sizes: small rewards ranging from \$25 to \$35, medium rewards ranging \$50 to \$60, and large rewards ranging from \$75 to \$85 (Kirby, Petry, & Bickel, 1999). The discount rate was calculated by the geometric mean. Specifically, the geometric mean was calculated for the point where participants switched from early to delayed rewards. When participants did not have a specific or

consistent switch point, they were assigned a missing value. This measure has been shown to be stable across a three-month period of time, stable enough to predict future behaviour, and has shown a test-retest reliability of $r = .60$ (Beck & Triplett, 2009; Ohmura, Takahashi, Kitamura, & Wehr, 2006). Future discounting also correlates with measures of impulsivity, supporting its validity (Beck & Triplett, 2009).

Viewing Time. Participants were presented with a series of 16 pictures of men and women developed by the Pacific Psychological Assessment Corporation (2004). The images showed men and women in their bathing suits, from the Tanner 4 and Tanner 5 secondary sexual characteristic categories (Marshall & Tanner, 1969, 1970; Tanner, 1962). Tanner's 4th stage refers to near full maturity of secondary sexual characteristics. Tanner's 5th stage refers to full maturity of secondary sexual characteristics. Participants were asked to rate how attractive they found the image on a scale of 1 (unattractive) to 10 (very attractive). When they were done looking at the photo, they clicked "continue" to see the next image. Viewing time was measured in milliseconds, and was based on how long the participant looked at the photo before clicking "continue." An average viewing time for each Tanner x Sex combination was calculated for each participant (four photos per combination). Quinsey, Ketsetzis, Earls, and Karamanoukian (1996) found that viewing time can serve as a good measure of sexual interest in men and women. Other studies have observed that viewing time is correlated with ratings of sexual arousal and attraction, providing further support for its validity (Lang et al., 1980).

Questionnaires. A set of questionnaires was used to assess different individual characteristics that may be associated with decision-making and sexual arousal. The set included questions about sexual history, aggression, and measures associated with risk-taking (Appendix 4).

The Biographic Questionnaire (BQ) assesses age, marital status, birth order, education, household income, ethnicity, employment status, and medication and psychotropic substance use. The Sexual History Questionnaire (SHQ; Suschinsky, 2006) includes questions to determine an individual's sexual attractions, sexual orientation, past sexual experiences, and frequency of sexual activity. The Partner Variety and Casual Sex Scale (PVCS; Lalumière & Quinsey, 1996) measures preferences for short-term relationships including questions regarding number of sex partners and willingness to engage in uncommitted sexual relations. Men typically score higher than women (Dowsley, 1996). The modified Sexual Experiences Survey (SES; Abbey & McAuslan, 2004) measures self-reported sexual aggression. The original SES questionnaire has revealed good test retest reliability (Koss & Gidycz, 1985). The Eysenck Impulsivity Scale (EIS; Eysenck, Person, Easting, & Allsopp, 1985) is the most widely used measure of self-report impulsivity. The EIS has good internal consistency with an α coefficient equalling 0.84 (Eysenck et al., 1985). Zuckerman's Sensation Seeking Scale (SSS-V) measures disinhibition, boredom susceptibility, experience seeking, and thrill and adventure seeking (Zuckerman, 1994). The SSS has been found to be reliable across sexes and cultures (Ridgeway & Russell, 1980; Zuckerman, Eysenck, & Eysenck, 1978). The SSS is also a valid measure of sensation seeking and has been found to correlate with other

measures that examine aspects of sensation seeking including autonomy, exhibitionism, and low self-control (Zuckerman & Link, 1968).

Procedure

All experimental procedures described below were approved by the University of Lethbridge's Human Subject Research Committee. Subsequent to an appointment scheduled via email or telephone, participants were randomly assigned to either the sexual or neutral condition and were assigned a participant identification number that assured anonymity. Participants were run individually.

Upon arrival to the laboratory, participants were greeted by the female experimenter (GMK). They were brought to the study room and were introduced to the study. Participants were reminded that they may be exposed to sexual photos and/or videos, to ensure that they were comfortable with this aspect of the study. The participants were then provided with the informed consent form to read over and sign if they agreed to participate (Appendix 5). Following consent, the experimenter explained in more detail the procedure of the experiment, including how to use the computer program (Appendix 6). The experimenter then left the room and the participants began the study.

For the first half of the study, participants viewed video clips and then completed the decision-making tasks. To begin the study, participants first read a description of the experiment and how to use the accompanying computer program. Participants then watched a video clip from the randomly assigned condition. A video was shown before

every decision-making task. The decision-making tasks were randomly ordered. Following the three decision-making tasks, participants were asked to report the maximum level of sexual arousal experienced on a scale of 1 (no sexual arousal) to 9 (maximum sexual arousal). The viewing time task was always the last task participants completed and was also preceded by a video. This procedure was used to ensure that if viewing time photos led to sexual arousal, the arousal did not impact any of the decisions participants made during the other tasks. After completing the three decision-making tasks and the measure of viewing time, participants watched the final baseline video to ensure that they returned to a neutral arousal level.

Following completion of the first portion of the study, the experimenter was then called back into the room by the participant. The experimenter provided the participant with the questionnaire package in an envelope which was to be completed and replaced in the envelope.

Once the questionnaire package was complete, the participant exited the room and the experimenter provided the subject with a written debriefing form (Appendix 7). Participants received two bonus marks for their participation. They also received a small monetary reward based on the decisions that they made during the experiment.

For the Risky Choice Task, each choice had a mean payoff of \$3.00, but participants could earn up to \$30.00. After completing all six trials, participants rolled a computer-generated, randomly programmed die. The number that appeared on the die determined

the number of the trial for which they could receive their earnings. For example, if the participant selected the guaranteed \$3.00 for that trial, they received \$3.00; however, if they had selected the non-guaranteed option, a computer-generated cup with black and white beads appeared on the screen. The proportion of black to white beads matched the probability option of the trial selected (i.e. a 3 out of 10 chance of receiving \$10.00). The participants would press on the button to pick a bead. If a black bead was picked, they received the full amount from that trial. If a white bead was selected, they received nothing.

The mean payment for the Balloon Analogue Risk Task was \$2.50. Every participant received their full earnings from this task. Participants had a chance of winning anywhere between \$15.00 and \$85.00 for the Future Discounting Task. At the end of the discounting task, participants rolled two randomly programmed, computer-generated dice. If the participant rolled two ones, they won their earnings from a random round of the Future Discounting task based on the choice they made between the two options in that round (i.e. \$34.00 today or \$35.00 in 43 days). Therefore, if they chose the later option, they would receive a post-dated cheque for that sum of money; and if they chose the present option, they would immediately receive their earnings from that task.

Participants received their earnings in the form of a cheque. The average total earnings for men was \$8.97, and for women was \$6.96. The participants also completed the participation sheet for course credit, which was kept separate from all data.

Data Preparation and Analysis

Descriptive statistics were calculated for all variables and the data were screened for the presence of outliers, and for skewness and kurtosis. No outliers were present for the Risky Choice Task, Balloon Analogue Risk Task, or Future Discounting. The Risky Choice Task, the Balloon Analogue Risk Task, and Future Discounting of small rewards were all normally distributed across sex and condition. Therefore, untransformed data were analyzed for these tasks. Future Discounting of medium and large rewards were positively skewed. Three transformations to correct positive skewness (square root, base 10-logarithm, and inverse transformation) did not normalize the distribution for the Future Discounting of medium and large rewards. Therefore, untransformed data were analyzed for the Future Discounting of medium and large rewards. There were 11 outliers present for Viewing Time. Outliers were brought in using the Tabachnik and Fidell (2001) winsorize method that allots each outlier a value of one unit (milliseconds) higher from the next extreme score in the sample. Following the procedure to bring in outliers, the distribution was re-examined for skewness and kurtosis, and no further transformations were necessary.

All statistical analyses were conducted using the Statistical Package for the Social Sciences designed for Windows (SPSS, version 16.0). Sex (Male and Female) and Condition (Sexual Arousal and Neutral Arousal) were the between-subjects variables. The Choice Task, Balloon Analogue Risk Task, Future Discounting, and Viewing Time were the dependent variables. For the analysis of Viewing Time, Sexual Development (Tanner 4 and 5) and Sex of the individual in the photos were also used as within-subject

independent variables.

RESULTS

Manipulation Check

To ensure that the sexual film clips elicited sexual arousal in the participants in the sexual condition, an analysis of variance was conducted on the maximum sexual arousal levels reported by men and women in both the sexual and neutral conditions (Figure 2.1). There were 7 missing values for this analysis due to computer errors. The ANOVA demonstrated a significant main effect for condition, $F(1, 31) = 15.55, p < .001, \eta^2 = .32$. Specifically, participants in the sexual condition reported higher levels of maximum sexual arousal than participants in the neutral condition. There was no main effect for sex, $F(1, 31) = .75, p = .39, \eta^2 = .02$. There was no interaction effect, $F(1, 31) = 1.53, p = .23, \eta^2 = .03$. The results support the effectiveness of the sexual video clips in eliciting sexual arousal for participants in the sexual condition.

Risk-Taking

Risky Choice Task. A two-way analysis of variance 2 (sex, male and female) X 2 (condition, sexual and neutral) was conducted to evaluate the effects of sexual arousal on decision-making in the Risky Choice Task and to examine whether sexual arousal was differentially effective for men and women. The group means for the number of risky choices are presented in Figure 2.2. The ANOVA indicated a condition by sex interaction, $F(1, 38) = 9.73, p = .003, \eta^2 = .20$. Women in the sexual condition made significantly more risky choices than women in the neutral condition, and the reversed effect was

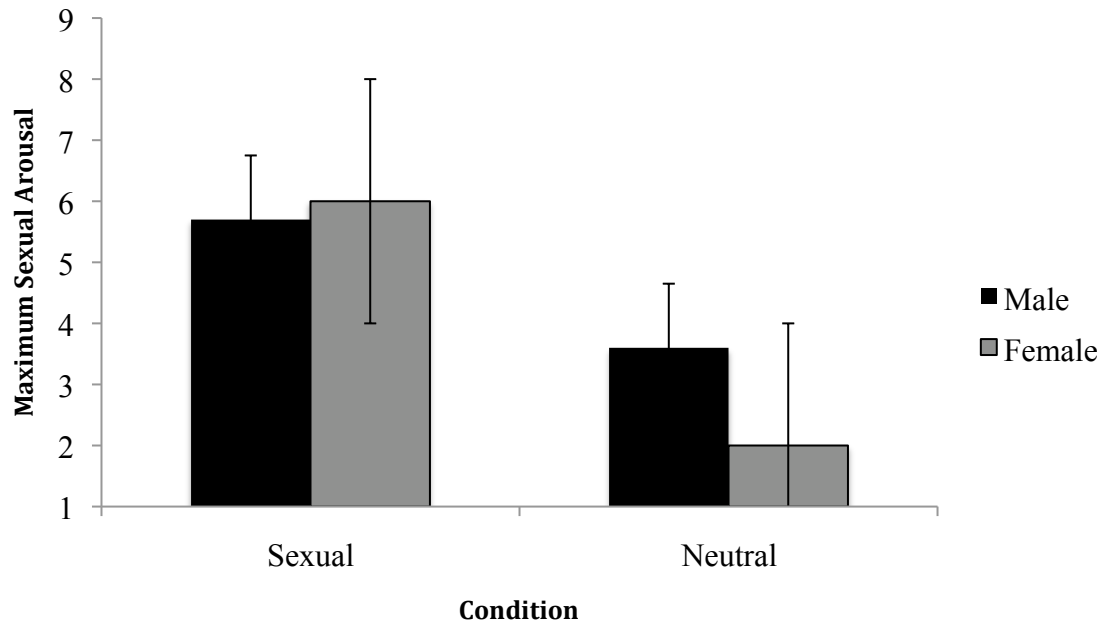


Figure 2.1. Means and standard errors for maximum sexual arousal as a function of sex and condition

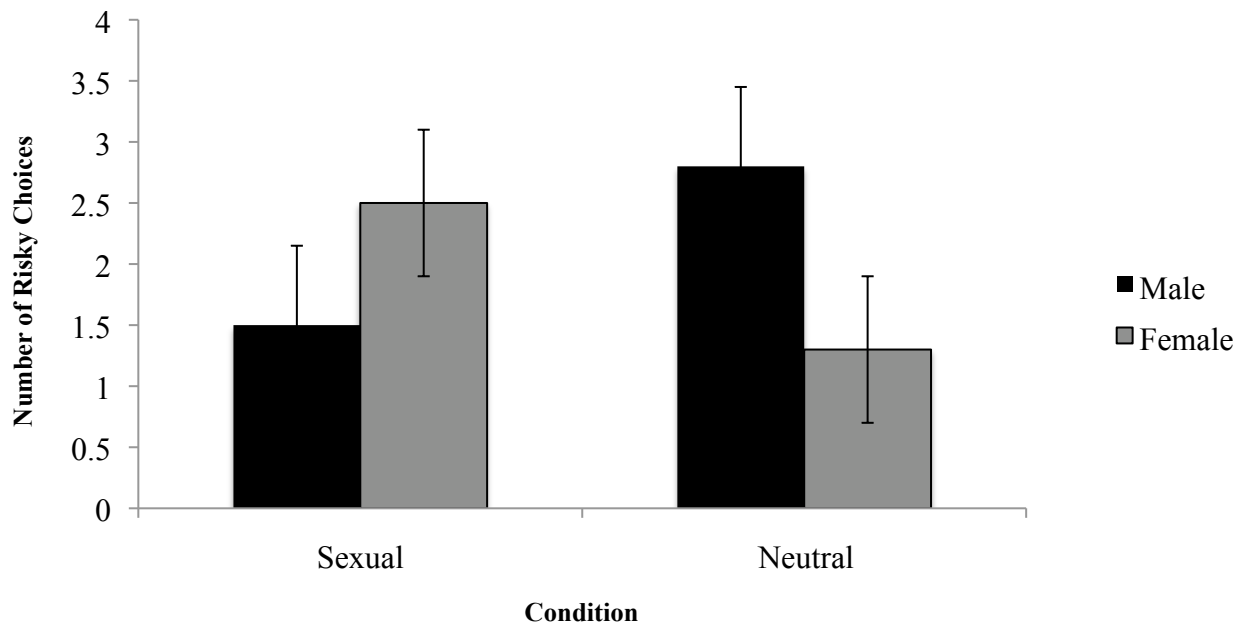


Figure 2.2. Means and standard errors for the risky choice task as a function of gender and condition

observed for men. There were no significant main effects for sex, $F(1, 38) = .52, p = .48, \eta^2 = .01$, or condition, $F(1, 38) = .02, p = .88, \eta^2 = .04$.

Balloon Analogue Risk Task. A two-way analysis of variance 2 (sex) X 2 (condition) was conducted to evaluate whether sexual arousal affected the number of pumps made during the Balloon Analogue Risk Task. The group means are displayed in Figure 2.3. The ANOVA indicated a significant main effect of sex, $F(1, 38) = 6.54, p = .02, \eta^2 = .15$. Specifically, men had higher adjusted average pumps than women, and therefore were more risky than women. There was no significant main effect for condition, $F(1, 38) = .07, p = .79, \eta^2 = .00$. There was no interaction effect, $F(1, 38) = .091, p = .77, \eta^2 = .00$.

Future Discounting. Across all reward sizes, the geometric mean k (the switch point from immediate to delayed rewards) for the sexual condition was .0714 and the geometric mean for the neutral condition was .0567. These two means were not significantly different from each other, $t(42) = .86, p = .39$. There were 2 missing values for the small reward size, 3 for the medium reward size, and 2 for the large reward size.

A two-way analysis of variance 2 (sex) X 2 (condition) was conducted to examine whether sexual arousal affected future discounting of the smaller reward size and whether it was differentially effective for men and women. The group means for the discounting rates are displayed in Figure 2.4. There was no significant main effect for sex, $F(1, 36) = .39, p = .54, \eta^2 = .00$. There were also no significant main effect of condition, $F(1, 36) = 1.12, p = .29, \eta^2 = .04$. The analysis revealed a near significant interaction effect, $F(1, 36)$

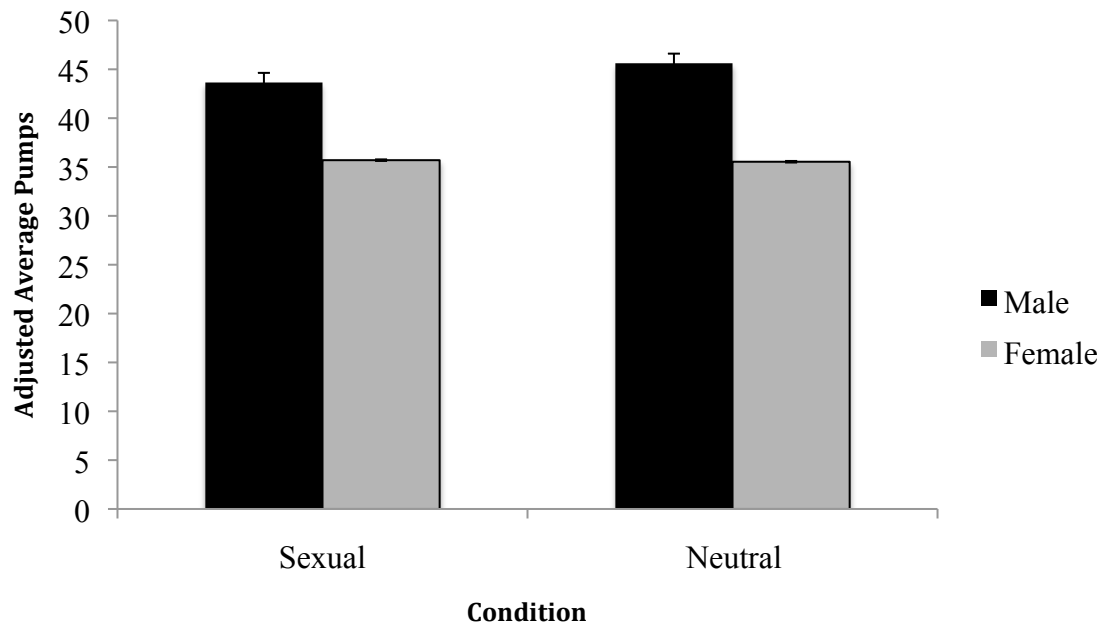


Figure 2.3. Means and standard errors for balloon analogue risk task as a function of gender and condition

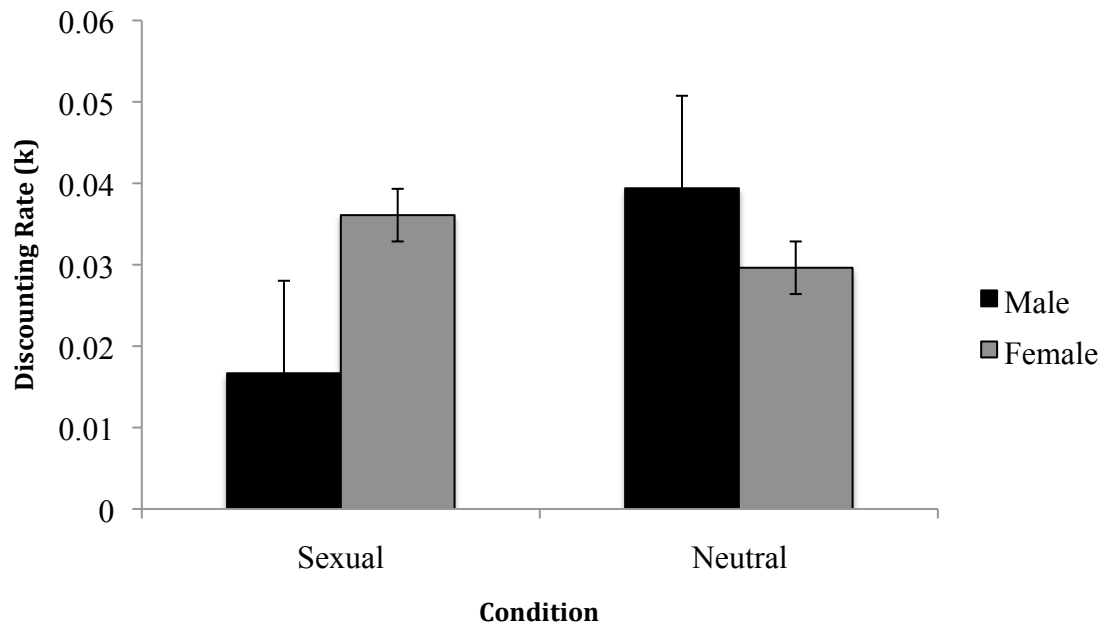


Figure 2.4. Future discounting mean rates and standard errors of small reward size as a function of sex and condition

= 3.59, $p = .06$, $\eta^2 = .08$. The pattern of means was very similar to that obtained for the Risky Choice Task.

The same two-way analysis of variance 2 (sex) X 2 (condition) was conducted for future discounting of the medium reward size. The group means for discounting rate are displayed in Figure 2.5. There were no significant main effects found for condition, $F(1, 35) = .31$, $p = .58$, $\eta^2 = .00$. There was a near significant main effect for sex, $F(1, 35) = 3.72$, $p = .06$, $\eta^2 = .12$. The analyses did not reveal a significant interaction effect, $F(1, 35) = 2.20$, $p = .15$, $\eta^2 = .06$. The results suggest that men tended to have higher discount rates for the medium sized rewards than women.

A two-way analysis of variance 2 (sex) X 2 (condition) was conducted to examine discounting rates for the future discounting of the large reward size. The group means are displayed in Figure 2.6. There was no significant main effect found for condition, $F(1, 36) = .02$, $p = .88$, $\eta^2 = .00$. There was no significant main effect for sex, $F(1, 36) = 1.15$, $p = .29$, $\eta^2 = .00$. The analyses did not reveal a significant interaction effect, $F(1, 36) = .14$, $p = .71$, $\eta^2 = .00$.

A 2 x 2 x 3 (Participant Sex x Condition x Reward Size) mixed ANOVA was conducted. Mauchly's test for sphericity was significant; therefore, the corrected Greenhouse-Geisser results are reported. There was a significant main effect of reward size, $F(1.55, 54.41) = 16.86$, $p < .001$, $\eta^2 = .27$. Follow-up pairwise comparisons revealed a significant difference between the small ($M = .031$) and the medium ($M = .019$) rewards, $t(38) =$

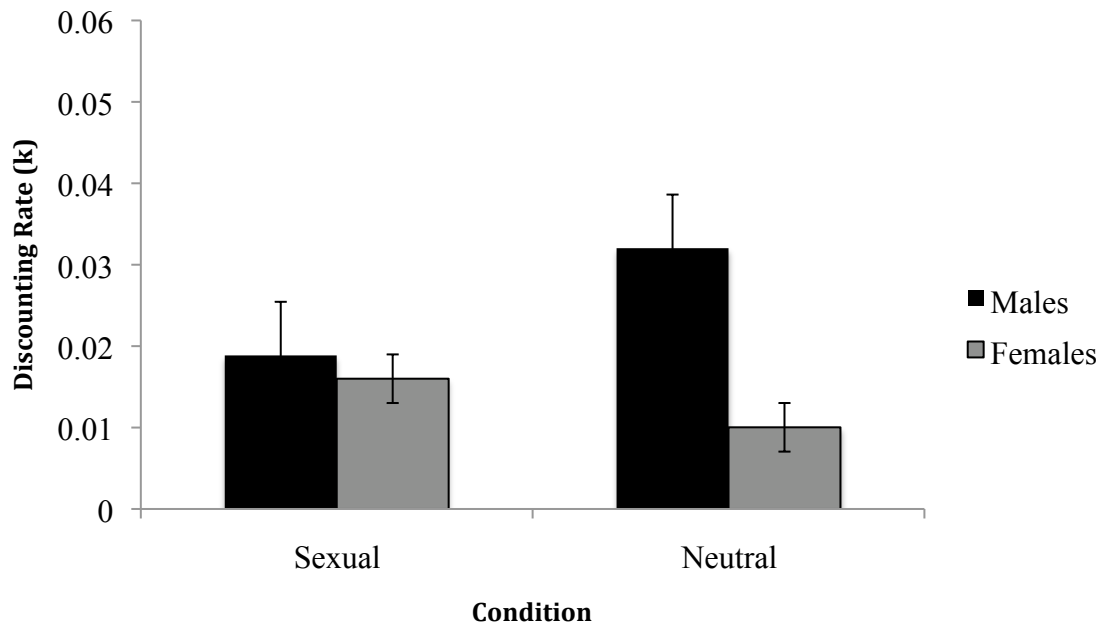


Figure 2.5. Future discounting mean rates and standard errors of medium reward size as a function of sex and condition

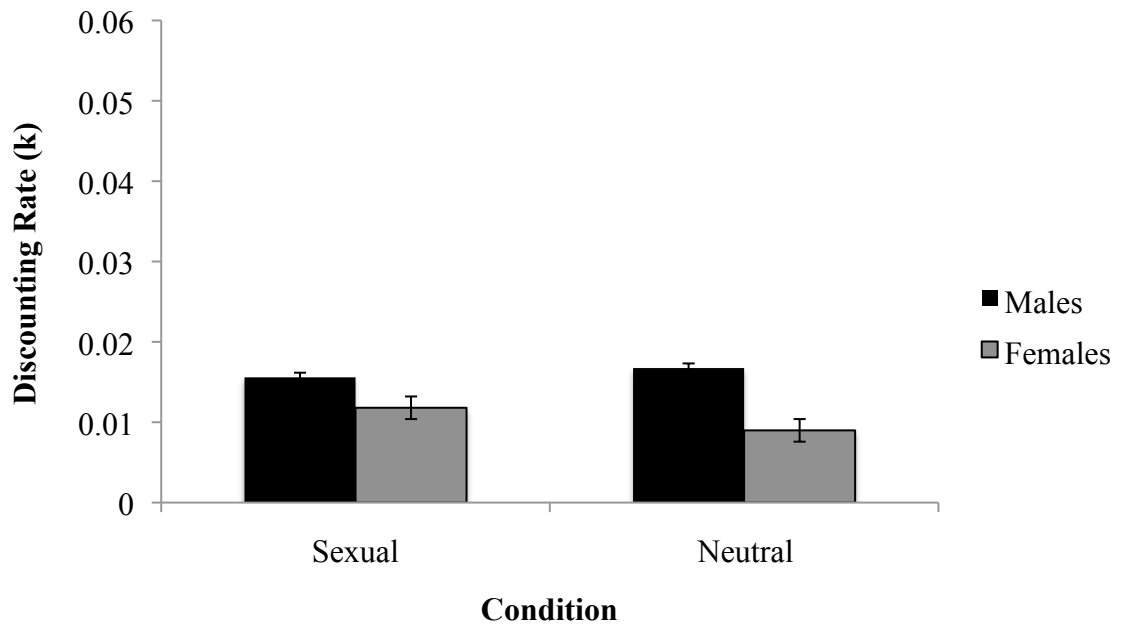


Figure 2.6. Future discounting mean rates and standard errors of large reward size as a function of sex and condition

3.19, $p < .003$. The medium rewards were also discounted significantly more than the large ($M = .014$) rewards, $t(38) = 2.55, p < .015$. There was also a significant difference between the small and the large rewards, $t(38) = 4.60, p < .001$. There was no significant main effect of condition, $F(1, 35) = .26, p = .61, \eta^2 = .01$. There was also no significant effect of participant sex, $F(1, 35) = .43, p = .51, \eta^2 = .01$. There was no interaction effect of reward size by condition, $F(1.55, 54.41) = .76, p = .44, \eta^2 = .00$. There was a significant effect of reward size by sex, $F(1.55, 54.41) = 4.75, p = .02, \eta^2 = .09$. A follow-up one-way ANOVA revealed a trend approaching significance whereby men discounted medium rewards ($M = .025$) more than women ($M = .013$), $F(1, 37) = 3.76, p = .06$. There was no significant interaction effect of reward size by condition by sex, $F(1.55, 54.41) = 2.47, p = .11, \eta^2 = .05$.

Considering that the Balloon Analogue Risk Task and Future Discounting involve multiple trials (30 and 27 respectively), additional analyses were conducted on the first six trials of each of these tasks to control for the possibility that sexual arousal dissipated prior to the completion of all trials. For the Balloon Analogue Risk Task, sexual arousal did not influence risk-taking for the first six trials. The discount parameter (k) was not used to examine the effect of sexual arousal on the first six trials of Future Discounting. Instead, the number of immediate choices (compared with delayed choices) was calculated. The higher the score, the higher the discounting rate. Results did not indicate an effect of sexual arousal on this measure of Future Discounting.

Viewing Time

A mixed ANOVA was used to determine whether sexual arousal increased participants' viewing times in milliseconds for their preferred sexual partners. A significant main effect was obtained for sex of the photos, $F(1, 38) = 21.89, p < .001, \eta^2 = .37$. Specifically, participants looked longer at photos of women ($M = 5286.7$) than photos of men ($M = 4143.0$). A significant interaction effect was found for sex of the participant by sex of the photos, $F(1, 38) = 7.34, p = .01, \eta^2 = .16$. Men, but not women, looked longer at pictures of females than males. No other significant effects were revealed. The means for men and women as a function of Tanner and sex of the photos are presented in Figures 2.7a and 2.7b.

Mating Effort and Risk-Taking

In order to assess whether sexual arousal affects decision-making and whether being high or low in mating effort affects decision-making differentially, 2 x 2 x 2 ANOVA was conducted for each of the risk-taking tasks. In order to calculate whether participants were either high or low on mating effort, a median split of the Partner Variety and Casual Sex Scale by condition and sex was conducted. The median for the sexual condition was 31.0 and the median for the neutral condition was 36.3. Groupings were created for each condition based on participants assigned as either high or low mating effort.

The ANOVAs conducted for the Risky Choice Task, Balloon Analogue Risk Task, and Future Discounting revealed no effect of mating effort on risk-taking, and mating effort did not interact with any of the other independent variables. Therefore, being either high

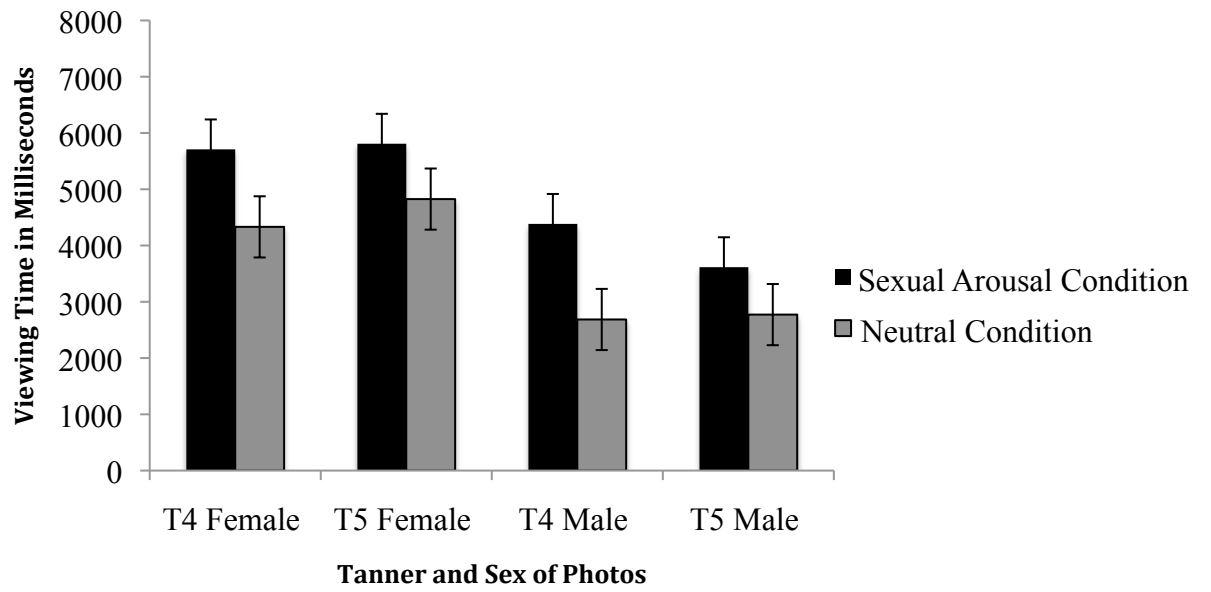


Figure 2.7a. Male mean viewing times as a function of Tanner stage and sex of pictures

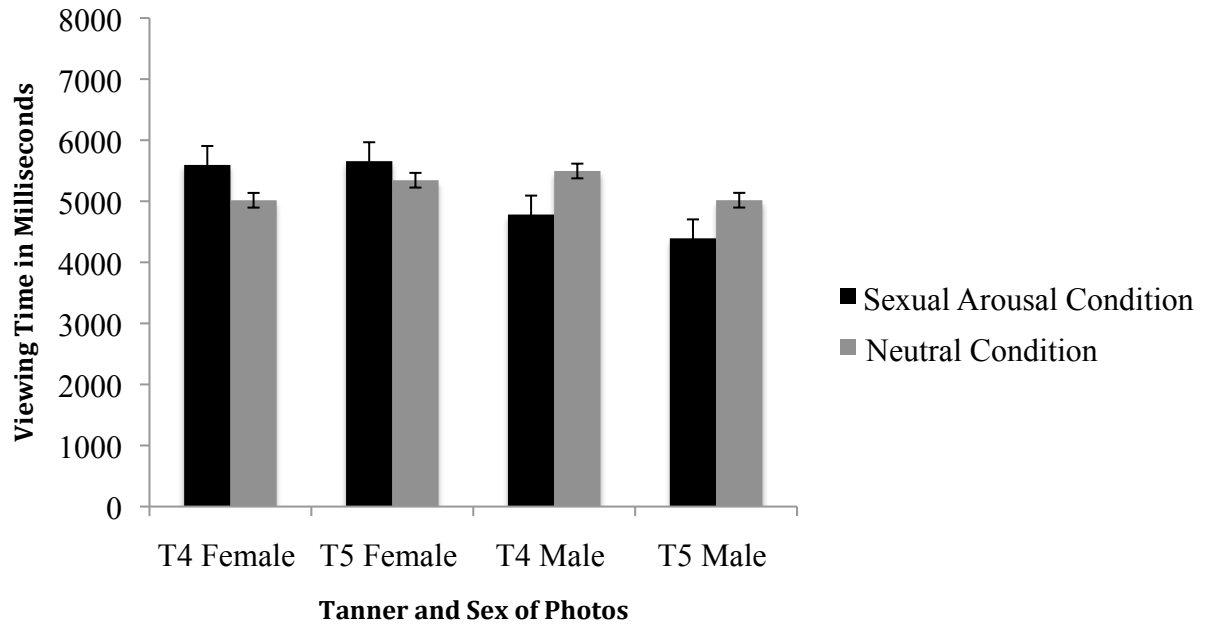


Figure 2.7b. Female mean viewing times as a function of Tanner stage and sex of pictures

or low on mating effort did not impact decision-making on these tasks and mating effort did not affect how participants responded to sexual arousal.

Impulsivity and Risk-Taking

In order to assess the effect of sexual arousal on decision-making and whether impulsivity plays a role in how sexual arousal impacts decision-making, 2 x 2 x 2 ANOVA was conducted for each of the risk-taking tasks. Impulsivity was measured by the Eysenck Impulsivity Scale and the Sensation Seeking Scale. Scores for each of these measures were converted into standardized scores and then combined to create a measure of impulsivity. The median of condition by sex was then calculated to determine high or low impulsivity for each participant. The standardized median for the sexual condition was .375 and the median for the neutral condition was -.213.

The ANOVAs conducted for the Risky Choice Task, Balloon Analogue Risk Task, and Future Discounting did not reveal an effect of impulsivity on risk-taking. Furthermore, impulsivity did not interact with any of the other independent variables. Therefore, being either high or low in impulsivity did not impact decision-making on these tasks and did not influence how participants responded to the sexual arousal.

Sexual Coercion and Risk-Taking

In order to assess the effect of sexual arousal on decision-making and whether having a history of using sexually coercive tactics plays a role in how sexual arousal impacts decision-making, 2 x 2 x 2 ANOVA was conducted for each of the risk-taking tasks. The

sexual coercion variable was created based on whether participants reported using any of the sexually coercive tactics from the Sexual Experiences Survey. If participants reported using at least one sexually coercive tactic, they were considered sexually coercive. Seven men and eight women reported that they had used at least one sexually coercive strategy.

Sexual coercion was not found to influence decision-making on the Risky Choice Task or the Balloon Analogue Risk Task. There was a significant interaction effect of sexual coercion and condition, $F(1, 31) = 6.13, p = .02, \eta^2 = .17$, on the discounting of medium-sized rewards. Specifically, participants in the sexual condition who were sexually coercive had higher discounting rates than individuals who were not coercive, and this was not seen for participants in the neutral condition. Sexual coercion did not affect any other reward sizes of Future Discounting.

Return to Baseline Manipulation

In order to ensure that participants returned to a baseline level of sexual arousal at the end of the experiment, participants viewed a 90 second neutral video clip. An independent samples t-test revealed that there was a significant difference between the neutral condition ($M = .32$) and the sexual condition ($M = 1.13$) in arousal, $t(33) = 5.24, p = .001$. Although the difference was significant, the means were very close to one, suggesting that the participants were not sexually aroused at the end of the experiment.

DISCUSSION

Results from Experiment 1 did not provide support for the hypothesis that sexual arousal increases risk-taking in men and not in women. Specifically, in the Risky Choice Task, men in the neutral condition made significantly more risky choices than men in the sexual condition, and women in the sexual condition made more risky choices than women in the neutral condition. Sexual arousal had no effect on the average number of pumps made in the Balloon Analogue Risk Task. There was also no effect of sexual arousal on any of the reward sizes in Future Discounting for men or women. Findings did reveal expected sex differences in risk-taking for the Balloon Analogue Risk Task and Future Discounting. The results are discussed below. Limitations associated with the experiment are addressed, as are several lines of future research.

The Effect of Sexual Arousal on Risk-Taking in the Laboratory

Findings from the current experiment revealed that when women were sexually aroused, they preferred higher variance options, whereas men seemed to prefer higher variance options when they were not aroused. However, there was no effect of sexual arousal on the Balloon Analogue Risk Task. Therefore, sexual arousal seems to increase some forms of risk-taking in women.

I also examined whether cues of sex have an effect on decisions to discount the future. The findings revealed that sexual arousal did not influence participants' future discounting rates. To be clear, there was no effect of condition on any of the reward sizes, which suggests that this form of emotional arousal does not impact an individual's decision to discount the future. Results indicated expected differences in discounting rates

between reward sizes. In particular, the results demonstrated a magnitude effect whereby discounting rates decreased as delayed reward size increased. This effect is consistent with previous research examining future discounting, which supports the validity of this measure in examining discounting rates (Kirby & Marakovic, 1996).

The results did reveal expected gender differences in risk-taking as seen in the Balloon Analogue Risk Task and Future Discounting of medium-sized rewards. Other studies have shown that, in general, men tend to be more risk-prone and discount the future more than women (Eckel & Grossman, 2002). Consequently these gender differences are consistent with previous research and suggest that the tasks are valid measures of risk-taking and time discounting and sensitive enough to show effects in this experimental context.

The current experiment examined whether mating effort and impulsivity were related to how sexual arousal affected an individual's decision-making. Specifically, it was predicted that men who were high in mating effort or impulsivity would be more affected by cues of sex and would then take more risks. However, being high or low in mating effort or impulsivity was not related to the effect of sexual arousal on decision-making.

Experiment 1 also examined whether individuals who reported using at least one sexually coercive strategy in the past were more affected by sexual cues. The results indicated no effect in the Risky Choice Task and the Balloon Analogue Risk Task. Findings did demonstrate an effect for the discounting of medium-sized rewards for participants in the

sexual condition. Specifically, individuals who were sexually coercive discounted the future more than those who were not sexually coercive when sexually aroused. This effect was not found for those in the neutral condition, suggesting that a history of sexual coercion may influence an individual's discounting rates when they are under the influence of sexual arousal. This result does provide some evidence that sexual arousal may influence future discounting in individuals who employ coercive strategies. Considering that this effect was only seen for the medium-sized rewards and was not demonstrated for the other risk-taking tasks, it must be taken with caution and explored further in future research.

Results from the Risky Choice Task demonstrated that women took more risks when in the sexual condition and men took more risks when in the neutral condition. It is possible that the neutral video clips presented to participants in the neutral condition elicited some emotional arousal. The videos showed male and female, attractive Hollywood actors conversing together. Although the videos were specifically selected so that they did not present any sexual content or connotations, it is possible that the videos were still more arousing than expected. In fact, some participants assigned to the neutral condition reported increased sexual arousal levels.

Throughout history, there has been more intrasexual competition among men than among women (Baker & Maner, 2009; Trivers, 1972). Furthermore, evidence suggests that some forms of male risk-taking are related to this intrasexual competition for mates (Wilson & Daly, 1985). Considering this risk strategy, it is possible that the men exposed to the

neutral videos were employing risky behaviours as a way of competing with the man in the video. The lack of sexual or suggestive content or connotations in the neutral videos may have suggested to the men that the women in the videos were romantically available, and they therefore employed a more risky strategy.

Although evolutionary theory and risk-taking research suggests that females are risk averse, research investigating safe sex practices has shown evidence of sexual arousal decreasing condom use and decreasing the perception of risk of getting a sexually transmitted infection among women (Norris et al., 2004). Therefore, the result in the first experiment that women who were sexually aroused took more risks in the Risky Choice Task than those who were not sexually aroused may demonstrate the effect of sexual arousal on decision-making in women during sexual encounters. Other studies have examined female risk-taking using similar or the same measures of risk, and have found that women in general are less risky than men (Fessler et al., 2004; Lejuez et al., 2002). However, this was the first experiment to manipulate sexual arousal in women and examine its effects on objective measures of decision-making.

Pornography is most commonly male-directed and less consumed, purchased, and viewed by women than men (Symons, 1979). Therefore, for this experiment, the sexual stimuli may have been more effective or more novel for women than for men. Analyses revealed that women had significantly less experience with pornography than men, $t(39) = -5.81, p = .001$. It is possible that the sexual videos presented were less familiar to women and may have elicited stronger feelings of arousal. Therefore, the videos may not have been a

strong enough stimulus for men to become sexually aroused. However, men in the sexual condition did report higher levels of subjective sexual arousal than men in the neutral condition.

There were few effects of sexual arousal on the measures of risk-taking used in Experiment 1. It is possible that sexual arousal only influences domain-specific forms of decision-making. Previous research on the effect of sexual arousal on decision-making has examined sexual decision-making, such as safe sex practices and willingness to engage in sexually aggressive behaviour (Ariely & Loewenstein, 2005; Bouffard, 2002). The research has shown that sexual arousal increases people's willingness to take sexual risks, including not using a condom and an increase in willingness to engage in sexually coercive behaviours with a partner (George et al., 2009; MacDonald et al., 2000). Considering the evidence in support of the effect of sexual arousal on sexual decision-making, it is possible that sexual arousal does not affect more objective, non-sexual measures of decision-making. Considering this possible limitation, future research should attempt to further examine the effect of sexual arousal on hypothetical decision-making, while controlling for other situational variables such as alcohol use.

The Effect of Sexual Arousal on Viewing Time in the Laboratory

Motivational myopia theory predicts that individuals who are sexually aroused focus their attention on their arousal and ignore other cues in the environment, eliciting a similar effect to that of alcohol (Ariely & Loewenstein, 2005). Therefore, one would expect that participants who are sexually aroused would focus their attention on photos of individuals

they find attractive more than participants who are not sexually aroused. There was no effect of sexual arousal on viewing time in men or women.

Viewing time results did reveal that men looked longer at photos of women than men, and this effect was not seen in women. Instead, women looked similarly long at photos of both men and women. The finding that men looked longer at photos of women than men is consistent with their sexual preferences. Previous research has shown that heterosexual men view photos of their preferred sexual partners longer than to their non-preferred partners (Israel & Strassberg, 2008; Zamansky, 1956).

Sexual arousal is generally considered an indicator of sexual interest, and recent research has shown that women seem to be less category specific in their sexual arousal than men. Chivers and Bailey (2005) found that heterosexual men show greater self-reported and physiological sexual arousal to female stimuli than other types. Women, on the other hand, have nonspecific sexual arousal patterns whereby they show increased genital arousal to different types of sexual stimuli, including their non-preferred sexual partners. The self-reported sexual arousal of women is more category specific than their genital arousal, so that the correlation between physiological sexual arousal and self-reported arousal is not as strong in women as it is in men (Suschinsky et al., 2009). Consistent with viewing time findings from Experiment 1, Israel and Strassberg (2008) found that women looked longer at same-sex pictures than men did, suggesting that the lack of category specificity exhibited in women may also be seen in measures of sexual interest.

Limitations and Future Research

As previously mentioned, Experiment 1 included neutral videos that may have been perceived by participants as more arousing than intended. Therefore, future research should compare sexual videos with videos that do not elicit any arousal. This may allow researchers to properly examine whether sexual arousal can have an effect on decision-making.

Future studies should continue to examine the effect of sexual arousal on behavioural measures of risk. However, it would be beneficial to further examine its effects on domain-specific forms of decision-making. It remains to be determined whether sexual arousal only influences sexual decision-making, or whether it can also influence non-sexual measures of decision-making. Considering the previous limitation that the neutral videos may not have been perceived as neutral by the participants, we cannot yet conclude or rule out the possibility that sexual arousal impacts many domains of decision-making.

It must be remembered that performance in an artificial laboratory setting may not predict performance in the natural environment. Particularly, participants may not behave or make the same decisions within the laboratory as they would in an uncontrolled setting where cues and information cannot be manipulated. Therefore, results must be taken with caution and may not necessarily apply to outside the laboratory.

CONCLUSION

Experiment 1 was the first to examine the effect of sexual arousal on objective measures of decision-making. This experiment was also the first to use videos as excitatory or neutral stimuli. It was hypothesized that individuals who were sexually aroused would take more risks than those who were not sexually aroused. Furthermore, it was expected that the effect of sexual arousal on risky behaviour would only be seen in men. Results revealed, instead, that men who were not sexually aroused preferred higher variance options compared to men who were aroused. The opposite effect was seen in women, who preferred higher variance options when sexually aroused compared to when they were not aroused. However, there was no effect of sexual arousal in the Balloon Analogue Risk Task or in Future Discounting.

Furthermore, the viewing time results did not reveal an effect of sexual arousal, but did demonstrate that participants preferred to look at photos of women. Furthermore, women looked similar lengths of time at both men and women, whereas men looked longest at women. Therefore, sexual arousal did not seem to narrow attention on preferred sexual partners.

Considering this is the first experiment to examine the effect of sexual arousal on objective measures of risk-taking, future research should further examine this form of emotional arousal and how it influences both objective forms of decision-making, as well as sexual decision-making. Previous research has suggested that it is an important situational factor involved in date rape. Limitations of Experiment 1 should be addressed in future research in order to better understand sexual arousal's role in date rape and in

other risky behaviours.

CHAPTER THREE

Experiment 2: The Effect of Sexual Arousal on Behavioural and Sexual Decision-Making

Introduction

Previous research has shown that sexual arousal is potentially an ecologically relevant and dominant situational factor involved in date rape. Specifically, it has been suggested that sexual arousal promotes riskier decision making. The effect of sexual arousal was often studied in combination with alcohol, making it difficult to disentangle the effects of sexual arousal from the effect of alcohol on decision-making. Experiment 1 examined whether sexual arousal influences risky decision-making. Results revealed an effect of sexual arousal for women in the Risky Choice Task, whereby sexually aroused women preferred higher variance options more than women in the neutral condition. Furthermore, men in the sexual condition took significantly fewer risks than men in the neutral condition. There were no other significant effects of sexual arousal found for the other decision-making tasks used in the first experiment.

Experiment 2 attempted to replicate and improve on the first experiment. It included a second neutral condition consisting of nature videos in order to induce a more neutral form of arousal. It is possible that the neutral videos used in the first experiment elicited some form of emotional arousal from the attractive Hollywood actors in the clips. Therefore, nature videos were used as a second neutral condition. Experiment 2 also

included a measure of sexual decision-making to assess whether sexual arousal may only have an impact on domain specific decision-making.

The second experiment's main objective was to further examine the role of sexual arousal on risky decision-making in a date rape analogue. Sexual arousal was compared to a non-erotic social condition, and a non-erotic non-social condition. The second objective of Experiment 2 was to examine whether sexual arousal influences participants' viewing times to photos of people in bathing suits. The third objective was to examine whether sexual arousal influences sexual decision-making. The fourth objective of the study was to examine whether a number of personal characteristics, such as mating effort, impulsivity, and a history of sexual coercion, were related to how sexual arousal affects decision-making.

OVERVIEW OF EXPERIMENT 2

Fifty men and fifty-five women were presented with either erotic, non-erotic social, or non-erotic non-social video clips and were then asked to complete three behavioural decision-making tasks, a sexual decision-making task, and a measure of viewing time. Participants also completed several questionnaires.

METHODS

Participants

One hundred and five undergraduate students (50 men and 55 women) between the ages of 18-25 years participated. Recruitment methods and inclusion criteria were identical to Experiment 1 (see Chapter 2).

The mean age of the male and female participants was 21.0 years ($SD = 2.09$) and 20.2 years ($SD = 2.09$), respectively. Fifty-five percent of the men were single with the remaining 45% either in a dating relationship (35%), engaged (6%), or married (4%). Thirty-five percent of the women were single. The remaining 65% were in a dating relationship (52%), engaged (4%), married (6%), or in a common-law relationship (4%). The majority of male and female participants were Caucasian (94% and 91% respectively). All the participants reported a heterosexual orientation. There were no significant sex differences on any of these biographic characteristics. Fifty-nine percent of the women reported using hormonal contraceptives.

Based on a modified version of the Sexual Experiences Survey (Abbey & McAuslan, 2004), the number of participants who have used sexually coercive tactics to obtain sexual contact or intercourse was determined. The sexually coercive tactics included: using arguments and pressure; showing displeasure; using a position of authority; threatening to use or actually using physical force, and using alcohol or drugs. Twenty-two men (44%) reported that they had used at least one sexually coercive tactic to obtain sexual contact or intercourse. Fifteen women (27%) reported using at least one coercive tactic in order to obtain sexual contact or intercourse.

Considering that Experiment 2 is a replication of Experiment 1 (with minor changes and additions), details regarding methodology can be found in Chapter 2. Only changes to Experiment 1 are detailed here.

Audio-Visual Stimuli. Participants watched 90-second video clips of one of three categories: sexual, neutral, nature. For more information on the sexual and neutral condition, please consult Chapter Two. The nature videos depicted beach scenes. There were no people or other objects in these video clips. The participants watched five video clips belonging to one of the three categories, depending on the condition they were randomly assigned to. The videos were shown before each of the decision-making tasks.

Decision-Making Measures. The sexual decision-making measure was adapted from Ariely and Loewenstein (2005). Participants answered 10 questions regarding unsafe sex practices and sexually coercive strategies for obtaining sex (Appendix 8). The questions required either yes or no forced choice answers. The questions were used to assess domain-specific decision-making, for example, “Would you keep trying to have sex after your date says ‘no’?” The total number of risky choices was calculated to assess willingness to engage in sexual risk-taking.

Procedure

All experimental procedures were approved by the University of Lethbridge’s Human Subject Research Committee. Appointments were schedule via email or telephone.

Following this participants were randomly assigned to either the sexual, neutral, or nature condition and were assigned a participant identification number that assured anonymity.

A video was presented before every decision-making task. The three behavioural decision-making tasks were randomly ordered. After completing the first three tasks, participants completed the measure of sexual decision-making. Following this, participants were asked to report the maximum level of sexual arousal experienced on a scale of 1 (no sexual arousal) to 9 (maximum sexual arousal). The viewing time task was always the last task participants completed and was also preceded by a video. After completing the four decision-making tasks and the measure of viewing time, participants watched the final neutral video to ensure that they returned to a neutral arousal level.

Data Preparation and Analysis

Two participants were excluded from analyses because they requested not to be in the sexual condition. Descriptive statistics were calculated for all variables and the data were screened for the presence of outliers, and for skewness and kurtosis. No outliers were present for the Risky Choice Task, Balloon Analogue Risk Task, or Future Discounting. The Risky Choice Task and the Balloon Analogue Risk Task were normally distributed across sex and condition. Future Discounting of small, medium and large rewards were positively skewed. The three transformations used to correct positive skewness—which included the square root, base 10-logarithm, and inverse transformation—would not normalize the distribution for Future Discounting. Therefore, untransformed data were analyzed for the Risky Choice Task, Balloon Analogue Risk Task, and Future

Discounting. There were 14 outliers present for Viewing Time. Outliers were brought in using the Tabachnik and Fidell (2001) winsorize method that allots each outlier a value of one unit (milliseconds) higher from the next lowest extreme score in the sample. Following the procedure to bring in outliers, the distribution was re-examined for skewness and kurtosis. No further transformations were necessary.

All statistical analyses were conducted using the Statistical Package for the Social Sciences for Windows (SPSS, version 16.0). Sex (Male and Female) and Condition (Sexual Arousal, Neutral Arousal, and Nature) were the between-subjects variables. The Risky Choice Task, Balloon Analogue Risk Task, Future Discounting, Viewing Time, and Sexual Decision-Making were the dependent variables. Tanner stage (4 and 5), and Sex of the person in the picture (male and female) were used as within-subjects variables in the analyses of Viewing Time.

RESULTS

Manipulation Check

To ensure that the sexual film clips elicited sexual arousal in the participants in the sexual condition, an analysis of variance was conducted on the maximum sexual arousal levels reported by participants in the three different conditions (Figure 3.1). The ANOVA demonstrated a significant main effect for condition, $F(2, 97) = 31.49, p < .001, \eta^2 = .39$. Pairwise comparisons revealed that participants in the sexual condition ($M = 5.34$) reported significantly higher maximum sexual arousal than participants in the neutral

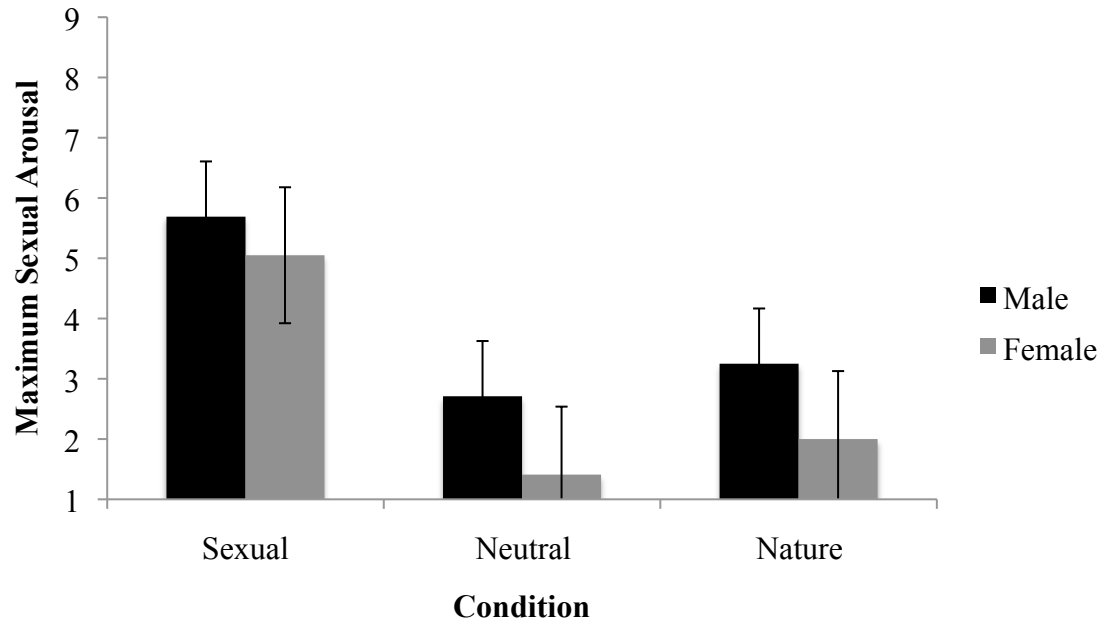


Figure 3.1. Means and standard errors for maximum sexual arousal as a function of sex and condition

condition ($M = 2.1$), $t(67) = 7.24$, $p < .001$. Participants in the sexual condition also reported significantly more sexual arousal than those in the nature condition ($M = 2.6$), $t(67) = 5.76$, $p < .001$. There was no significant difference in self-reported arousal between the neutral and the nature condition $t(66) = -1.18$, $p < .24$. There was a main effect for sex, $F(1, 97) = 8.39$, $p < .005$, $\eta^2 = .08$. Men ($M = 3.9$) reported significantly higher maximum arousal compared to women ($M = 2.9$). There was no interaction effect for condition by sex, $F(2, 97) = .34$, $p < .71$, $\eta^2 = .01$. The results support the effectiveness of the sexual video clips in eliciting sexual arousal for participants in the sexual condition.

Risk-Taking

Risky Choice Task. A two-way analysis of variance 2 (sex, male and female) X 3 (condition, sexual, neutral, and nature) was conducted to evaluate the effects of sexual arousal on the number of risky choices made in the Risky Choice Task and to examine whether sexual arousal was differentially effective for men and women.

The means are presented in Figure 3.2. The ANOVA indicated a main effect of sex $F(1, 97) = 11.39$, $p < .001$, $\eta^2 = .10$. Men ($M = 2.9$) made significantly more risky choices than women ($M = 1.8$). There was no main effect for condition $F(2, 97) = 1.15$, $p = .32$, $\eta^2 = .02$. Results also indicated no interaction effect of sex and condition $F(2, 97) = 1.04$, $p < .36$, $\eta^2 = .02$.

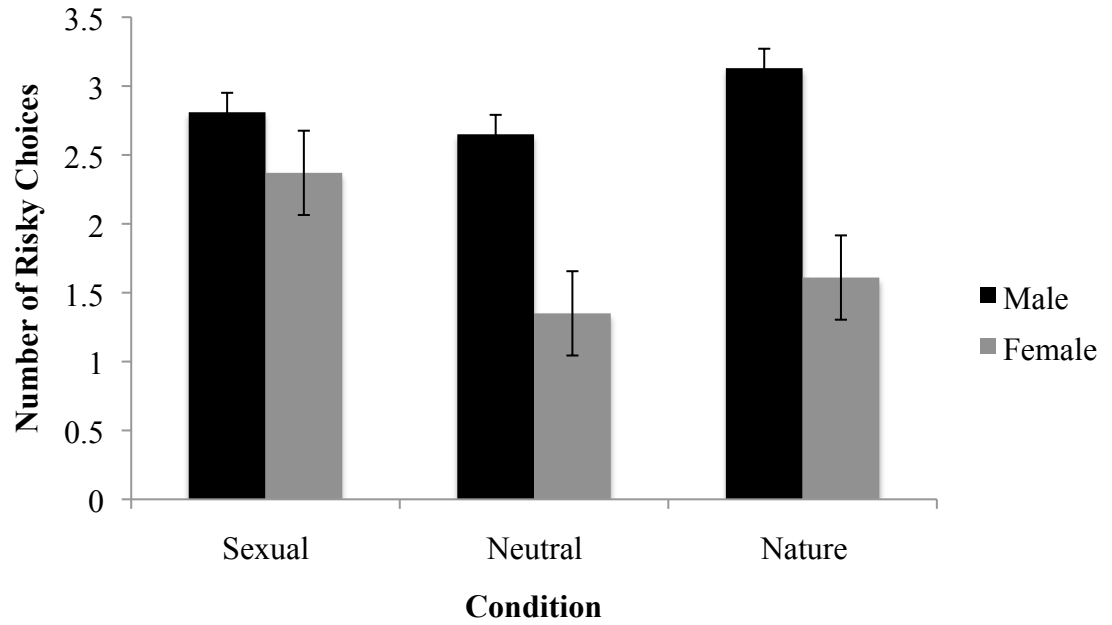


Figure 3.2. Means and standard errors for risky choice task as a function of sex and condition

Balloon Analogue Risk Task. A two-way analysis of variance 2 (sex) X 3 (condition) was conducted to evaluate whether sexual arousal affects the number of pumps made during the Balloon Analogue Risk Task. The means are displayed in Figure 3.3. The ANOVA indicated no significant main effect of sex, $F(1, 97) = 2.88, p = .09, \eta^2 = .03$, or condition, $F(2, 97) = 0.78, p = .46, \eta^2 = .02$. There was no interaction effect for sex by condition, $F(2, 97) = 0.71, p = .49, \eta^2 = .01$. Therefore, sexual arousal did not influence decision-making in the Balloon Analogue Risk Task.

Future Discounting. Across all reward sizes, the geometric mean k (the switch point from immediate to delayed rewards) for the sexual condition was .073, the geometric mean for the neutral condition was .106, and the geometric mean for the nature condition was .098. A one-way ANOVA revealed that the means were not significantly different from each other, $F(2, 90) = 0.86, p = .43$. There were 7 missing values for the small reward size, 5 missing values for the medium reward size, and 7 missing values for the large reward size.

A two-way analysis of variance 2 (sex) X 3 (condition) was conducted to examine whether sexual arousal affected participants future discounting of the small reward size (Figure 3.4). There was no significant main effect of sex, $F(1, 90) = 0.95, p = .33, \eta^2 = .01$. There were also no significant main effects found for condition, $F(2, 90) = 2.04, p = .14, \eta^2 = .04$. The analysis did not reveal a significant interaction effect of sex by condition for the small reward size, $F(2, 90) = 1.08, p = .34, \eta^2 = .02$.

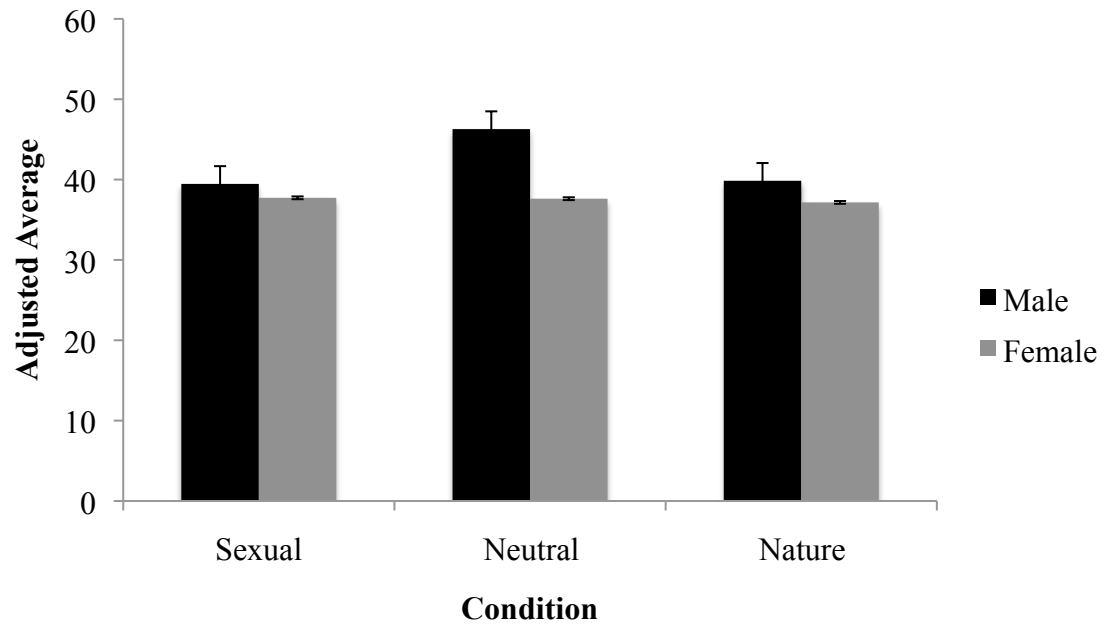


Figure 3.3. Means and standard errors for the balloon analogue risk task as a function of sex and condition

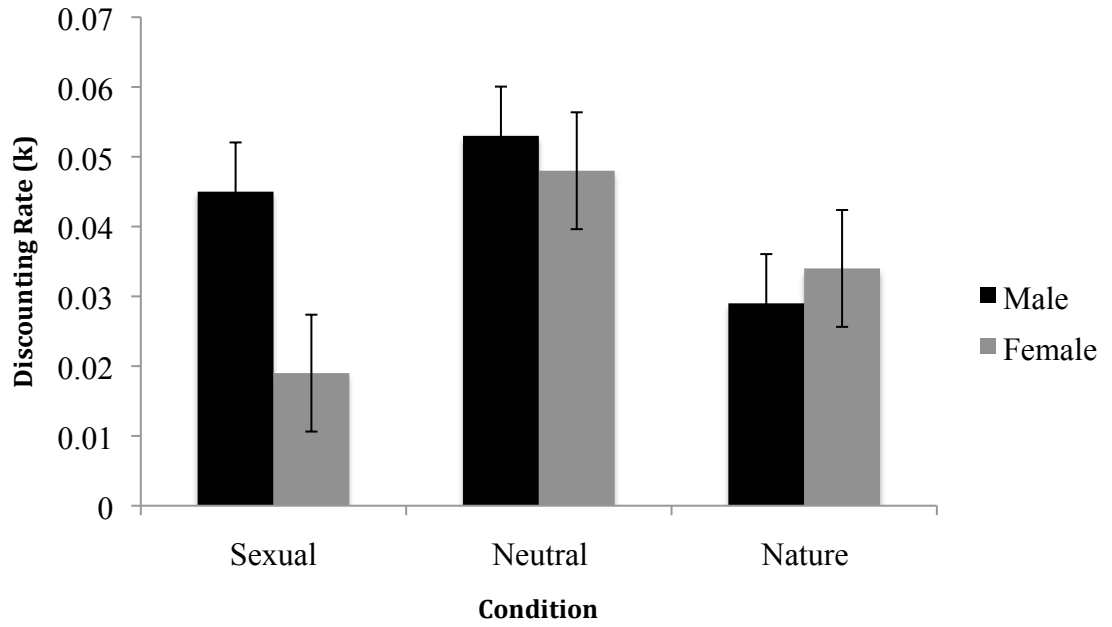


Figure 3.4. Future discounting mean rates and standard errors of small reward size as a function of sex and condition

A two-way analysis of variance 2 (sex) X 3 (condition) was conducted to examine whether condition affected participants future discounting of the medium reward size (Figure 3.5). There were no significant main effects found for condition, $F(2, 92) = .57, p = .57, \eta^2 = .01$, or sex, $F(1, 92) = .41, p = .52, \eta^2 = .01$. The analyses did not reveal a significant interaction effect, $F(2, 92) = 0.89, p = .42, \eta^2 = .02$.

For the large reward size (Figure 3.6) there was no significant main effect found for condition, $F(2, 90) = 0.88, p = .42, \eta^2 = .02$. There was a significant main effect of sex, $F(1, 90) = 4.09, p = .05, \eta^2 = .04$. Women ($M = .032$) discounted large rewards significantly more than men ($M = .016$). The analyses did not reveal a significant interaction effect, $F(2, 90) = 0.97, p = .38, \eta^2 = .02$.

A 2 x 3 x 3 (Participant Sex [male, female] x Condition [sexual, neutral, nature] x Reward Size [small, medium, large]) ANOVA was conducted. Mauchly's test for sphericity was significant; therefore, the Greenhouse-Geisser is reported. There was a significant main effect of reward size, $F(1.60, 136.1) = 9.31, p < .001, \eta^2 = .09$. Follow-up pairwise comparisons revealed that the small ($M = .039$) rewards were discounted significantly more than the medium ($M = .029$) rewards, $t(93) = 3.01, p < .003$. The small rewards were also discounted significantly more than the large ($M = .024$) rewards, $t(93) = 3.18, p < .002$. The medium rewards were discounted marginally more than the large rewards, $t(93) = 1.93, p < .057$. There was no significant main effect of condition, $F(2, 85) = 0.82, p = .45, \eta^2 = .02$. There was also no significant effect of participant sex, $F(1, 85) = 0.86, p = .36, \eta^2 = .01$. There was no interaction effect of reward size by condition, $F(3.20, 136.1)$

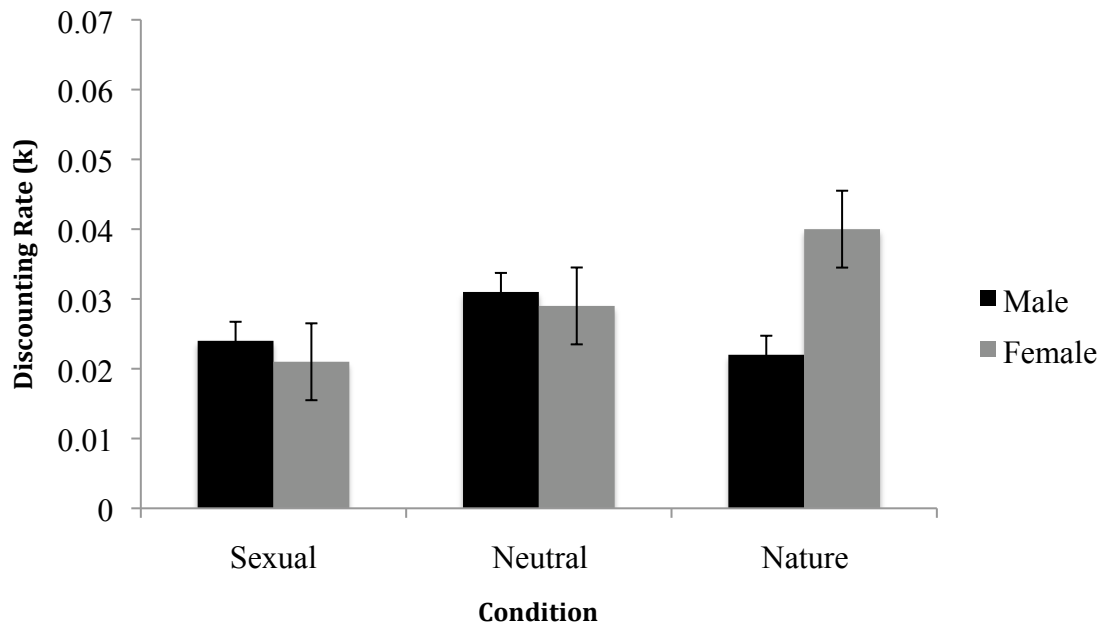


Figure 3.5. Future discounting mean rates and standard errors of medium reward size as a function of sex and condition

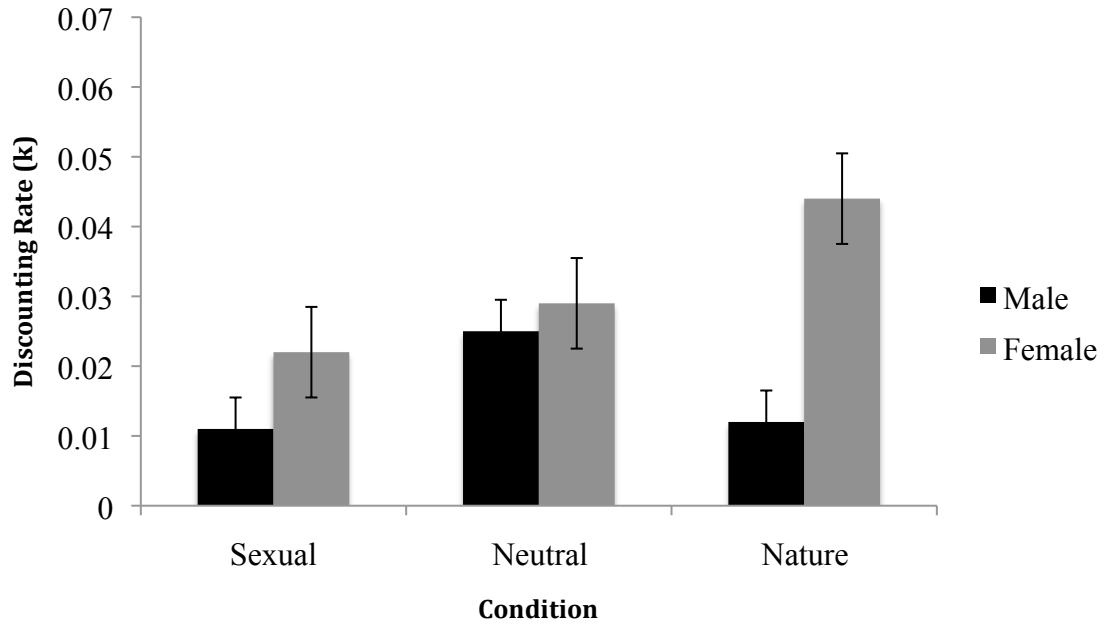


Figure 3.6. Future discounting mean rates and standard errors of large reward size as a function of sex and condition

= 1.73, $p = .16$, $\eta^2 = .03$. There was a significant effect of reward size by sex, $F(1.60, 136.1) = 7.89$, $p = .001$, $\eta^2 = .07$. A one way ANOVA revealed that women ($M = .034$) discounted large rewards significantly more than men ($M = .013$), $F(1, 94) = 4.05$, $p = .05$. There was no significant effect of reward by condition by sex, $F(3.20, 136.1) = 0.27$, $p = .86$, $\eta^2 = .01$.

Additional analyses were conducted on the first 6 trials of the Balloon Analogue Risk Task and Future Discounting to examine the possibility that sexual arousal dissipated prior to the completion of all trials. For the Balloon Analogue Risk Task, sexual arousal did not influence risk-taking for the first six trials. The discount parameter (k) was not used to examine the effect of sexual arousal on the first six trials of Future Discounting. Instead, the number of immediate choices (compared with delayed choices) was calculated. Results did not indicate an effect of sexual arousal on this measure of Future Discounting.

Viewing Time

A mixed-measures ANOVA was used to determine whether sexual arousal increased participants' viewing times for their preferred sexual partners. A significant main effect was obtained for the sex of the photos, $F(1, 97) = 41.33$, $p < .001$, $\eta^2 = .29$. To be specific, participants looked longer at photos of women ($M = 5539$) than of men ($M = 4312$). A significant interaction was found for participant sex by sex of the photos, $F(1, 97) = 15.28$, $p = .001$, $\eta^2 = .14$. Men, but not women, looked significantly longer at photos of women than photos of men. No other significant effects were revealed. The means for

men's and women's viewing times as a function of Tanner and sex of the photos are presented in Figures 3.7a and 3.7b.

Sexual Decision-Making

In order to assess whether sexual arousal affects sexual decision-making, a 2 (sex) X 3 (condition) ANOVA was conducted. Means and standard errors are presented in Figure 3.8. Results revealed a significant main effect of sex, $F(1, 97) = 17.74, p = .00, \eta^2 = .15$. Men ($M = 2.9$) made significantly more risky sexual decisions than women ($M = 1.6$). There was no main effect of condition, $F(2, 97) = 0.41, p = .66, \eta^2 = .01$. There was no interaction effect of sex by condition, $F(2, 97) = 0.65, p = .52, \eta^2 = .01$.

Mating Effort and Risk-Taking

In order to assess whether being high or low in mating effort affects decision-making, 2 (sex) X 3 (condition) ANOVA was conducted for each of the risk-taking tasks. In order to calculate whether participants were either high or low on mating effort, a median split by condition was conducted. The median for the sexual condition was 44.0, the median for the neutral condition was 40.5, and the median for the nature condition was 44.0.

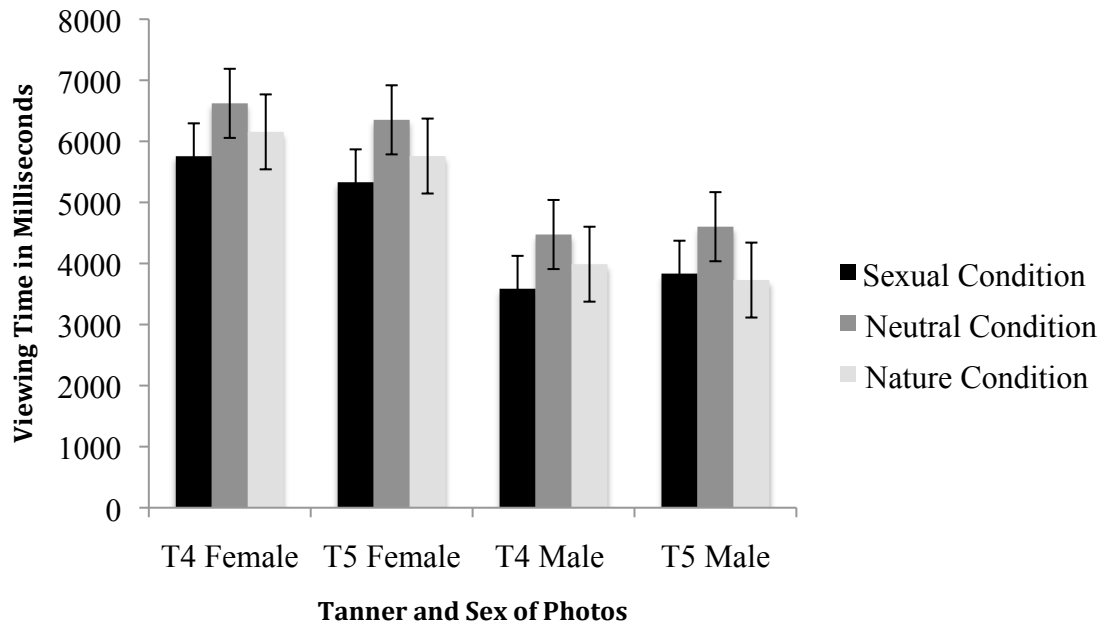


Figure 3.7a. Male mean viewing times and standard errors as a function of Tanner stage and sex of picture

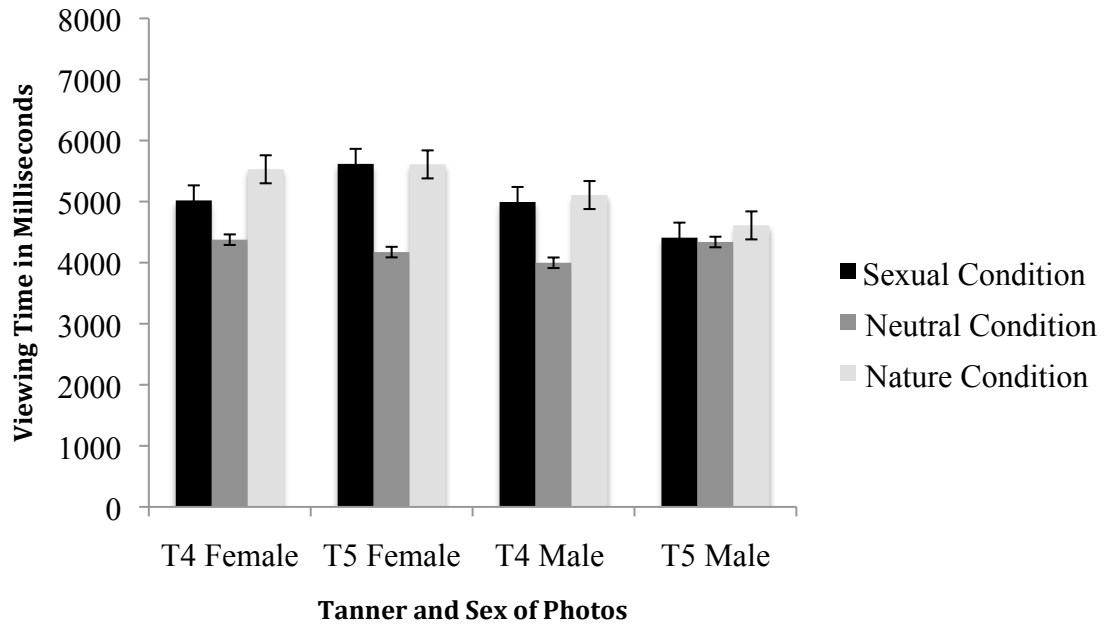


Figure 3.7b. Female mean viewing times and standard errors as a function of Tanner stage and sex of picture

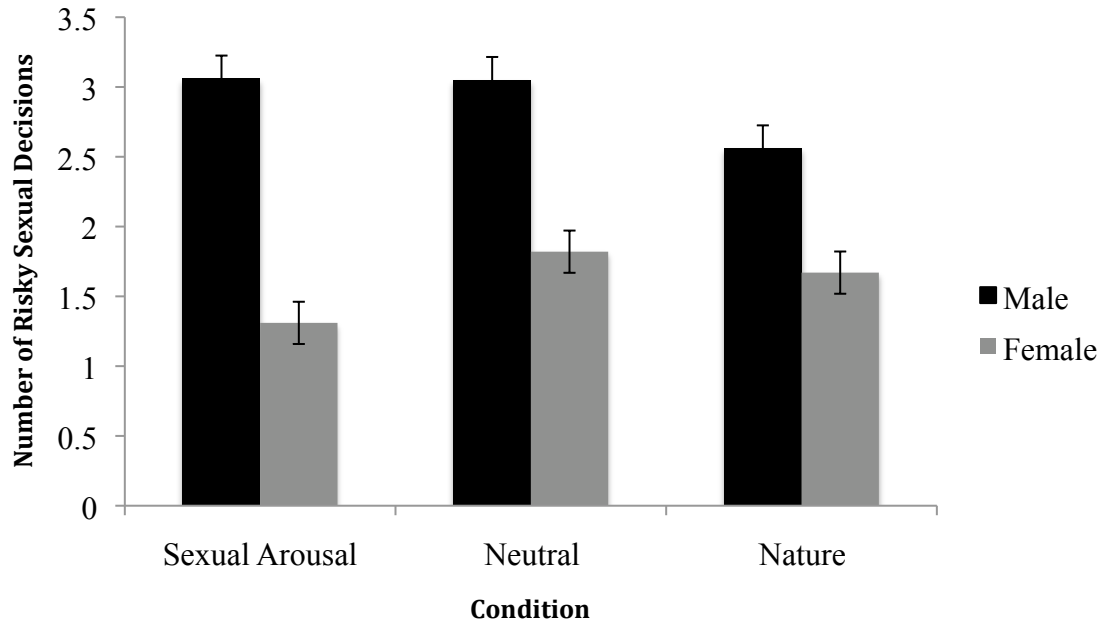


Figure 3.8. Means and standard errors for sexual decision-making as a function of sex and condition

Mating effort was not found to affect decision-making for the Risky Choice Task, Balloon Analogue Risk Task, or Future Discounting. Mating effort did not interact with any of the other independent variables. Therefore, being either high or low on mating effort did not impact decision-making on these tasks and mating effort did not affect how participants responded to sexual arousal.

Mating Effort and Sexual Decision-Making.

For sexual decision-making, the ANOVA revealed a significant main effect of sex, $F(1, 91) = 5.32, p = .02, \eta^2 = .06$. Particularly, men reported more risky sexual decisions than women. There was a main effect of mating effort, $F(1, 91) = 25.31, p = .001, \eta^2 = .22$, whereby individuals who were high in mating effort ($M = 3.1$) made more risky sexual decisions than individuals with low mating effort ($M = 1.4$). There was no effect of sex by mating effort, $F(1, 91) = 1.68, p = .19, \eta^2 = .02$. There was also no effect of condition by mating effort, $F(2, 91) = 1.12, p = .33, \eta^2 = .02$.

Impulsivity and Risk-Taking

In order to assess whether impulsivity plays a role in how sexual arousal impacts decision-making, 2 (sex) X 2 (high impulsivity or low impulsivity) x 3 (condition) ANOVA was conducted for each of the risk-taking tasks. Impulsivity is a measure that consists of both the Eysenck Impulsivity Scale and the Sensation Seeking Scale described in the Methods. Scores for each of these measures were converted into standardized scores and then combined to create a measure of impulsivity. The median of condition by sex was then calculated to determine high or low impulsivity for each participant. The

standardized median for the sexual condition was -.06, the median for the neutral condition was -.19, and the median for the nature condition was -.13.

The ANOVAs conducted for the Risky Choice Task and the Balloon Analogue Risk Task revealed no effect of impulsivity on risk-taking. Furthermore, impulsivity did not interact with any of the other independent variables. Therefore, being either high or low in impulsivity did not impact decision-making on the Risky Choice Task or the Balloon Task and did not influence how participants responded to the sexual arousal. There was an interaction effect for the large reward size of condition by impulsivity, $F(2, 84) = 3.51$, $p = .03$, $\eta^2 = .08$. Individuals in the nature condition who were low in impulsivity had higher discounting rates for large rewards than those in the sexual condition who were low in impulsivity, $t(32) = 2.31$, $p < .03$. There was no interaction effect of sex by impulsivity, $F(1, 84) = 1.04$, $p = .31$, $\eta^2 = .01$.

Impulsivity and Sexual Decision-Making

The ANOVA revealed a main effect of impulsivity, $F(1, 91) = 14.57$, $p = .001$, $\eta^2 = .14$. Individuals who were high in impulsivity made significantly more risky sexual decisions than those low in impulsivity. There was no interaction effect of condition by impulsivity, $F(2, 91) = 0.13$, $p = .88$, $\eta^2 = .003$.

Sexual Coercion and Risk-Taking

In order to assess whether having a history of using sexually coercive tactics plays a role in how sexual arousal impacts decision-making, 2 (sex) X 2 (sexually coercive or not

coercive) x 3 (condition) ANOVA was conducted for each of the risk-taking tasks. The sexual coercion variable was created based on whether participants reported using any of the sexually coercive tactics from the Sexual Experiences Survey. The number of participants who were sexually coercive or not are reported in the Methods.

A significant interaction effect was found for sex of the participant by sexual coercion for the Risky Choice Task, $F(1, 91) = 6.28, p = .01, \eta^2 = .07$. Men who were not sexually coercive ($M = 3.2$) made more risky choices than those who were sexually coercive ($M = 2.4$), whereas women who were sexually coercive ($M = 2.4$) took more risks than women who were not ($M = 1.6$). There was no interaction effect of sexual coercion by condition $F(2, 91) = .44, p = .65, \eta^2 = .01$. Sexual coercion was not found to influence decision-making on the Balloon Analogue Risk Task or any of the reward sizes of Future Discounting, and there was no interaction effect between sexual coercion and condition for these tasks. There was a significant main effect of sexual coercion for sexual decision-making, $F(1, 91) = 18.59, p = .001, \eta^2 = .17$. Individuals who were sexually coercive ($M = 3.2$) made significantly more risky sexual decisions than those who were not sexually coercive ($M = 1.7$). A significant interaction effect of participant sex by sexual coercion was also found, $F(1, 91) = 7.54, p = .01, \eta^2 = .08$. Men who were sexually coercive ($M = 4.0$) took more sexual risks than men who were not coercive ($M = 1.9$), but this was not observed in women. There was no interaction effect of sexual coercion by condition $F(2, 91) = .07, p = .93, \eta^2 = .01$.

Return to Baseline Manipulation

In order to ensure that participants returned to a baseline level of sexual arousal at the end of the experiment, participants viewed a 90 second neutral video clip. Statistical analyses could not be conducted on baseline arousal because all the participants in the three conditions reported that their sexual arousal level was a 0 on a scale of 0 to 10. The participants reported feeling no sexual arousal at the end of the experiment indicating that the manipulation was effective in reducing arousal.

DISCUSSION

Experiment 2 was a replication of Experiment 1 with some modifications. A third condition that exposed participants to nature videos was added, as well as a measure of sexual decision-making. Experiment 2 did not provide support for the hypothesis that sexual arousal would increase risky decision-making and viewing times of preferred sexual partners. Results indicated that men preferred higher variance options more than women. No effects of participant sex or condition were found for the Balloon Analogue Risk Task. Furthermore, the only effect for future discounting revealed that women discounted large rewards more than men. The results also revealed that men, but not women, looked longer at photos of women; this said, a participant's level of sexual arousal—or lack thereof—did not have an effect on viewing times. Experiment 2 also included a measure of sexual decision-making. Results indicated that men self-reported more willingness to engage in sexual risks than women, but sexual arousal did not have an effect on these hypothetical decisions. The effect of different individual variables on sexual arousal was also examined. Results and limitations are discussed and new avenues for future research are proposed.

The Effect of Sexual Arousal on Risk-Taking in the Laboratory

Results from the Risky Choice Task did not support the hypothesis that sexual arousal increased participants' preference for higher variance options. It was demonstrated, however, that overall men preferred higher variance options more than women. The sex difference in risk-taking has been documented in other studies, which revealed that men take more risks than women and provides support for the validity of the Risky Choice Task (Powell & Ansic, 1997).

Sexual arousal had no effect on decision-making for the Balloon Analogue Risk Task. In particular, there were no differences in the number of risks participants took, whether they were sexually aroused or not. The results also did not show any significant sex differences. Previous research, including Experiment 1, have found a sex difference in the Balloon Analogue Risk Task, where men most commonly take more risks than women (Hunt et al., 2005). Although the sex difference was not found in Experiment 2, there was a trend towards men taking more risks than women.

The condition participants were assigned to did not influence their future discounting rates. The results did reveal that women discounted the large reward size significantly more than men. This is a surprising result considering that previous research has shown that men tend to discount the future more than women (Eckel & Grossman, 2002). The findings also provided some support for the magnitude effect whereby participants discounted the small rewards more than the medium and large rewards. And yet, the

results did not reveal a difference in discounting rates between the medium and the large sized rewards. Thus, the results do not provide complete evidence of a magnitude effect in this experiment.

Mating effort did not influence how participants responded to sexual arousal in Experiment 2. Moreover, being either high or low in mating effort did not appear to affect participants' decision-making in the Risky Choice Task, Balloon Analogue Risk Task, or Future Discounting. Consequently, the findings suggest that mating effort does not play a role in how participants make decisions during the risk-taking tasks.

For the future discounting of large rewards, individuals in the nature condition who were low in impulsivity had higher discounting rates than those in the sexual condition who were low in impulsivity. This finding is unexpected because previous research has shown that high impulsivity is related to risk-taking (Kirby et al., 1999). In particular, other studies have revealed that individuals who are high in impulsivity are more likely to discount the future than those who are low in impulsivity.

It was hypothesized that individuals with a history of sexual coercion would take more risks on the objective measures of decision-making. The results indicated that men who were not sexually coercive took more risks on the Risky Choice Task than men who were sexually coercive. This result is opposite of what was hypothesized. Sexual coercion was also not found to influence decision-making for the Balloon Analogue Risk Task or for

Future Discounting. The findings suggest the possibility that having a sexually coercive history does not influence decision-making for forms of risk-taking unrelated to sex.

The Effect of Sexual Arousal on Sexual Decision-Making in the Laboratory

In order to improve on Experiment 1, this experiment included a measure of decision-making that was within the same domain as sexual arousal: sexual decision-making. The hypothesis that being in a state of sexual arousal would increase participants' willingness to engage in sexual risks was not supported. Men were found to be more willing to engage in sexual risks related to both unsafe sex and sexually coercive behaviours than women. This is consistent with extant research which has revealed that men are more likely and willing to take sexual risks than women (Poppen, 1995). Therefore, the aforementioned sex difference supports previous research on sexual risk-taking.

The results of Experiment 2 did not support previous research that has shown that sexual arousal increases sexual risk-taking. Specifically, several studies have found that exposing participants to photos of attractive people increases an individual's willingness to engage in sexual risks (Ariely & Loewenstein, 2005; Bouffard, 2002). Interestingly, videos have been found to be stronger stimuli than photos for arousing participants (Abel, Blanchard, & Barlow, 1981). It is surprising, therefore, that the sexual videos shown to participants in the sexual condition did not increase sexual risk-taking as much as attractive photos have in previous research.

The study by Ariely and Loewenstein (2005) that led to the motivational myopia hypothesis had male participants view photos of attractive people while masturbating, in the privacy of their own residence. It is possible that participants in that experiment reached a different level of arousal than participants in the present experiment who only watched videos in the laboratory. Given more salient videos or a condition where participants use masturbatory techniques to reach a maximum level of sexual arousal, similar results could be found.

Individuals high in mating effort reported being more likely to engage in sexual risk-taking. Sexual arousal did not seem to increase this effect as participants in all conditions who were high in this individual variable were more risky. The results suggest that individuals who spend more energy on trying to acquire and keep sexual partners are also more likely to engage in risky sexual practices as well as using sexually coercive behaviours. This finding supports previous research that has found an association between mating effort and rape, including date rape. Kanin (1984) found that men who had been sexually aggressive on a date had more sexual experience and more dating experience than men who were not sexually aggressive. Furthermore, research has also shown that behaviours related to mating effort, including a history of uncommitted sexual relationships and self-perceived mating success, were important risk factors for sexual coercion (Lalumière & Quinsey, 1996).

High impulsivity was related to more sexual risk-taking. This finding is in line with the hypothesis that impulsivity is related to risky behaviours, including sexual behaviours. In

fact, other studies have found that impulsivity is associated with sexual aggression (Lisak & Roth, 1988; Petty & Dawson, 1989).

Individuals with a history of sexual coercion reported significantly greater willingness to engage in sexual risks than individuals with no history of sexual coercion. Specifically, men with a history of sexual coercion took significantly more sexual risks than men who did not report a history of sexually coercive behaviours. This result was not seen in women, as there was no difference in the amount of sexual risks they reported based on whether they were categorized as sexually coercive or not. However, being sexually aroused did not seem to increase the effect of sexual coercion on sexual decision-making in either sex.

The Effect of Sexual Arousal on Viewing Time in the Laboratory

The measure of viewing time in Experiment 2 was used to test the motivational myopia hypothesis. It was hypothesized that individuals who were sexually aroused would look longer at photos of their preferred sexual partners, leading them to focus their attention on these photos while directing less attention towards photos they did not find attractive. Still, sexual arousal did not increase viewing times compared with the neutral conditions.

Findings did reveal that men, but not women, preferred to look longer at photos of women. This is consistent with previous research examining sexual arousal in men and women. Men tend to have the greatest sexual arousal and viewing times to their preferred sexual partners (Chivers & Bailey, 2005; Israel & Strassberg, 2008; Zamansky, 1956).

Women tend to be less specific, with an increase in sexual arousal to stimuli of both their preferred and non preferred sexual partners, and this can often be seen, to a lesser degree, in their viewing times.

Limitations and Future Research

Experiment 2 did not reveal an effect of sexual arousal on behavioural or hypothetical decision-making. Further, sexual arousal had no impact on viewing times. A possible limitation of this experiment may be that the sexual videos did not increase sexual arousal to a level where it would influence participant's decision-making. Therefore, future research should attempt to increase the salience of the manipulation in order to further examine sexual arousal's role in risky decision-making.

Considering that previous research has shown that sexual arousal increases risk-taking after exposure to photos of attractive people, future research should compare photos with videos. The presence of a member of the same sex in the sexual videos may have influenced participants' decisions in a different way than viewing photos of one attractive person of the opposite sex. Therefore, it would be beneficial for future research to examine the difference between photos and videos, and to attempt to include sexual videos of one person of the opposite sex.

CONCLUSION

Experiment 2 did not reveal expected differences between the erotic condition and the non-erotic social and non-erotic non-social conditions on risky decision-making.

Specifically, the condition participants were assigned to had no impact on their decision-making in the four tasks, including sexual decision-making. Men were found to be more risky than women in both the behavioural and sexual domains. However, the results did not support the hypothesis that sexual arousal would influence women's decision-making less than men's. Viewing times were not affected by sexual arousal in this experiment. Men, but not women, looked longer at photos of their preferred partner, but this was not affected by whether they were sexually aroused or not.

Future research should attempt to expose participants to more salient videos in the sexual condition in order to assess whether higher levels of sexual arousal would lead to changes in risky decision-making. Even though Experiment 2 did not find an effect of condition, this does not rule out the importance of sexual arousal in decision-making in a date rape analogue. This important situational factor should continue to be examined in research to further our understanding of its effects on decision-making in date rape scenarios.

CHAPTER FOUR

GENERAL DISCUSSION

The experiments included herein examined the effect of sexual arousal on risky decision-making. It was hypothesized that sexual arousal would increase risk-taking and viewing times of participants, and that this effect would be stronger for men than women. Experiment 1 revealed that women in the sexual condition took more risks in the Risky Choice Task than women in the neutral condition, and that men in the neutral condition took more risks in the Risky Choice Task than men in the sexual condition. This result was unexpected and opposite of what was hypothesized, particularly for the men. No other effects of sexual arousal were found for the other risk-taking measures, and sexual arousal did not impact viewing times in Experiment 1. Experiment 2 attempted to improve on the first by including a third condition that would be more neutral than the original neutral condition. It also included a measure of sexual decision-making in order to test whether the influence of sexual arousal on decision-making is limited to sex-specific domains. The findings from Experiment 2 did not replicate the results of Experiment 1. The condition assigned to participants did not impact their behavioural decision-making, viewing times, or sexual decision-making. Results from the two experiments are discussed and suggestions for future research are proposed.

The Effect of Sexual Arousal on Risk-Taking in the Laboratory

Results for the Risky Choice Task were not consistent between the two experiments. Experiment 1 revealed an interesting interaction in which women who were sexually aroused preferred higher variance options more than women who were not sexually

aroused, whereas men who were not sexually aroused preferred high variance choices more than men who were sexually aroused. This interaction was not obtained in Experiment 2; in fact, no effect of sexual arousal was observed.

There are a few possible reasons for this lack of consistency. There may be a population difference between the participants in the two experiments. Participants of Experiment 1 were recruited in the final week of the spring semester as well as over the summer semester. It is possible that different personality variables are involved in students who participate at the end of a semester, as well as students who take summer classes. The participants in Experiment 2 were recruited throughout the fall semester of classes, and therefore may have been a different population from the students taking classes in the summer. Another explanation for the groups' lack of consistency in decision-making could be that in Experiment 1 the maximum sexual arousal reached by participants was not different between the sexes. This is in contrast to Experiment 2 in which male participants reported significantly higher sexual arousal than female participants and the self-reported arousal in women was lower than Experiment 1. It is quite possible that I did not observe the same effect in women in the second experiment because their sexual arousal was lower than in the first experiment. Experiment 2 did reveal a sex difference in the Risky Choice Task, which supports it as a valid measure of risk-taking.

The findings for the Balloon Analogue Risk Task did not indicate an effect of condition. Sexual arousal did not influence decisions made during this task. Experiment 1 revealed that men took more risks than women, and this sex difference was approaching

significance in Experiment 2. Therefore, overall, men took more risks than women in the Balloon Analogue Risk Task. This finding is consistent with previous results (Hunt et al., 2005), which supports the Balloon Analogue Risk Task as a valid measure of risk-taking. Although findings from the current experiments suggest that sexual arousal does not influence decision-making on the Balloon Analogue Risk Task, it still remains unclear whether sexual arousal can increase risk-taking on the Balloon Analogue Risk Task using different manipulations.

Future discounting was also not affected by the manipulation used in the current experiments. Specifically, exposure to sexual materials did not increase participants' rates of future discounting. Experiment 1 revealed that men discounted the medium rewards more than women—a result that is consistent with previous research (Kirby & Marakovic, 1996). However, this result was not seen in Experiment 2. Instead, women discounted large rewards significantly more than men. The two experiments conducted to assess whether sexual arousal increases future discounting did not reveal consistent findings, which suggests that the sexual arousal manipulation used in the experiments was not effective in increasing discounting rates, particularly in men.

The experiments revealed inconsistent results for the influence of a history of sexual coercion on decision-making in a date rape analogue. In Experiment 1, the only significant effect found was for individuals with a history of sexual coercion. For those in the sexual condition, individuals who had a history of sexual coercion had higher discounting rates for the medium-sized rewards than those who were not coercive, and

this was not found for individuals in the neutral condition. This result supported the hypothesis that a sexually aggressive history would increase the effect of sexual arousal on future discounting rates. However, this result was not replicated in the second experiment. In fact, no effect of sexual coercion was found for any of the reward sizes of future discounting. In Experiment 1, a history of sexual aggression was unrelated to risk-taking in the Risky Choice Task and the Balloon Analogue Risk Task. In contrast, in Experiment 2, men who were not sexually coercive made more risky choices on the Risky Choice Task than men who were sexually coercive, and this was not seen in women. This result is not only inconsistent with Experiment 1, but is also opposite of what was hypothesized. For both experiments, a history of sexual coercion had no effect on decisions made on the Balloon Analogue Risk Task. Due to the lack of consistency between experiments, it remains unclear what the influence of sexual coercion experience is on risky decision-making.

Sexual arousal, in the current experiments, did not have a consistent effect on risky decision-making. With one exception, participants did not take more risks or discount the future more when sexually aroused, compared to participants who were not aroused. Therefore, these findings do not provide support for the hypothesis that sexual arousal increases risk-taking.

The main focus of this study was to examine whether, in the absence of other situational variables, sexual arousal increases risky decision-making. Previous research has often confounded the effect of sexual arousal by examining other situational variables

concurrently, making it difficult to disentangle the effects of each variable independently. The findings of the current research did not reveal a consistent effect of sexual arousal. In fact, for most of the measures of risk-taking, along with the measure of sexual decision-making, sexual arousal did not increase risky decision-making. Although future research needs to be conducted to correct some of the limitations of the current experiments, it is also possible that sexual arousal alone is not sufficient to increase risk-taking. Other studies have shown that sexual arousal, in combination with alcohol, increases risky hypothetical decisions (Davis et al., 2006; George et al., 2009; MacDonald et al., 2000). This suggests that alcohol plays a key role in the perpetration of date rape. In fact, the National Institute of Justice found that 67% of rape victims reported that the perpetrator was using alcohol or drugs (Gonzales et al., 2006). Therefore, it is possible that date rape more often occurs with a combination of these two situational variables, and that sexual arousal alone is not sufficient to lead to a sexually aggressive situation.

The Effect of Sexual Arousal on Viewing Time in the Laboratory

In an effort to provide a test of motivational myopia theory, Experiments 1 and 2 attempted to assess the effect of sexual arousal on the viewing times of participants. If sexual arousal increased participants viewing times, this would provide support for previous research on motivational myopia. Specifically, attention would narrow to focus on sexual cues, such as allocating attention to photos of preferred sexual partners. However, two experiments did not find an effect of sexual arousal on viewing times.

Although sexual arousal did not increase the looking times of participants, a consistent result was found across the two experiments. Specifically, men, but not women, looked longer at pictures of females than pictures of males. This finding is consistent with previous research demonstrating that sexual arousal and sexual interest are more category-specific in men than women (Chivers & Bailey, 2005; Israel & Strassburg, 2008; Zamansky, 1956). Therefore, men tend to look longer and experience greater arousal to pictures of their preferred sexual partners, whereas women tend to be less specific and show increased looking times and arousal to numerous types of stimuli.

Contrast effects provide another possible explanation for why sexual arousal in Experiments 1 and 2 did not increase viewing times for preferred sexual partners. Possibly, attention in the form of viewing time diminished because the sexual videos shown prior to the photos were of greater value or salience. Participants may have perceived the photos as less appealing after watching videos that may have been perceived as higher in appeal. Therefore, the expected effect of sexual arousal on viewing time may not have been seen based on this contrast between sexual videos and photos of people in bathing suits. Taking this effect into consideration, it is still possible that sexual arousal leads to motivational myopia in a date rape situation. And yet, in these experiments, the comparison of videos and photos may not have been an effective way of measuring motivational myopia.

The Effect of Sexual Arousal on Sexual Decision-Making in a Laboratory

The findings from Experiment 1 only revealed an effect of sexual arousal on decision-making for the Risky Choice Task, and the effect found was opposite of what was hypothesized. Considering this, Experiment 2 included a measure of sexual decision-making in order to assess whether sexual arousal may only influence domain-specific decision-making. The hypothetical questions asked during this task were regarding safe sex practices and sexually coercive behaviours.

Sexual arousal was not found to increase risky sexual decision-making. This is inconsistent with other research that has examined the effect of sexual arousal on sexual decision-making. However, past research has used different stimuli than Experiment 2 to arouse participants. For example, in other studies, photos of attractive members of the opposite sex have been used, as well as a study where male participants were instructed to masturbate while looking at nude photos of women (Ariely & Loewenstein, 2005; Bouffard, 2002). This suggests the possibility that the sexual videos used in Experiment 2 were either not salient enough or did not contain the ideal type of cue to elicit sexual arousal. Finally, it is also possible that participants did not reach the same level of sexual arousal as participants in other experiments. However, previous research that used these videos have shown that participants reached a high level of physiological and self-reported sexual arousal (Chivers et al., 2004).

Consistent with previous research, men were found to be more willing to engage in risky sexual behaviour than women (Poppen, 1995). Both male and female participants who were high in mating effort were found to be more willing to engage in sexual risks than those who were low in mating effort. This is consistent with previous research demonstrating an association between mating effort and risky sexual decision-making (Kanin, 1984; Lalumière & Quinsey, 1996). Specifically, individuals who have a history of sexual coercion place a high value on mating success and a higher number of sexual partners, aspects that can be considered risky sexual behaviour.

Having a history of sexual coercion influenced the sexual decisions participants made in Experiment 2. In particular, the results demonstrated that individuals with a history of sexual coercion made more risky sexual decisions than those who did not have a history of sexual coercion, particularly in men. This supports the hypothesis that past sexual coercion is related to greater willingness to engage in sexual risks.

While sexual arousal was not found to influence risky sexual decision-making in Experiment 2, future research should continue to examine the effect of this form of emotional arousal on decision-making. Future studies should test different salencies and types of stimuli in order to fully understand how sexual arousal plays a role in sexual risk-taking.

Limitations and Future Research

In order to examine the effect of sexual arousal on decision-making, Experiments 1 and 2 used a decision-making analogue, including measures of risk, preference for variance, and future discounting. These tasks measured objective decision-making rather than hypothetical decision-making, which has been used in previous studies. Although, a priori, there was reason to believe that sexual arousal would influence decision-making on these tasks, it is possible that they did not provide a very good analogue of date rape decisions or were not close enough to an actual date rape situation. In particular, considering the majority of date rapes involve alcohol use by the perpetrator, the lack of this situational variable may have made the present decision-making analogue inconsistent with actual incidents outside the laboratory. Also, the potential reward for making risky choices in the current tasks was not sex, unlike a real-world date rape incident.

As previously mentioned, a study by Ariely and Loewenstein (2005) instructed participants to self-stimulate while viewing photos of attractive women. In the study, they found that the motivation caused by sexual arousal led participants to be more willing to engage in sexual risks. Participants in the current experiments were only instructed to watch the videos and were not supposed to masturbate, so it is possible that they did not reach the same level of sexual arousal or sexual motivation as in previous studies.

Another possibility is that the sexual videos were not salient enough to influence decision-making. The mean sexual arousal level reached by the participants was not the maximum. If the visual material used in Experiments 1 and 2 produced higher levels of

sexual arousal in participants, we may have seen a stronger effect of sexual arousal on risky decision-making. It is also possible that the sexual arousal caused by the videos did not last throughout the trials of each task. For example, the participants' arousal may not have endured throughout the 30 trials of the Balloon Analogue Risk Task or the 27 trials of the Future Discounting task. Additional analyses were conducted for the first six trials of the Balloon Analogue Risk Task and Future Discounting in order to assess the possibility that sexual arousal quickly dissipated after starting the tasks. The results did not reveal an effect of sexual arousal on decision-making during the first six trials of the tasks. Although no effect was seen on these early trials in the analyses, it may be beneficial in future research to either show videos for longer prior to the tasks to elicit a higher level of sexual arousal, or to show multiple videos throughout the tasks in order to help maintain sexual arousal levels.

Future research should continue to examine the role of sexual arousal in date rape situations. Previous research has shown it is an important and ecologically relevant situational factor. Although the effect of sexual arousal on decision-making remains unclear, future research is still needed. Considering these were the first experiments to use videos and objective measures of decision-making, it would be useful to continue to use these stimuli and measures in future research, while improving on some of the limitations discussed above.

REFERENCES

- Abbey, A. (1991). Acquaintance rape and alcohol consumption on college campuses: How are they linked? *Journal of American College Health, 39*, 165–169.
- Abbey, A. (2002). Alcohol-related sexual assault: A common problem among college students. *Journal of Studies on Alcohol, 14*, 118-128.
- Abbey, A., Cozzarelli, C., McLaughlin, K., & Harnish, R. J. (1987). The effects of clothing and dyad sex composition on perceptions of sexual intent: Do women and men evaluate these cues differently? *Journal of Applied Social Psychology, 17*, 108-126.
- Abbey, A., & McAuslan, P. (2004). A longitudinal examination of male college students' perceptions of sexual assault. *Journal of Consulting and Clinical Psychology, 72*, 747-756.
- Abbey, A., McAuslan, P., & Ross, L.T. (1998). Sexual assault perpetration by college men: The role of alcohol, misperception of sexual intent, and sexual beliefs and experiences. *Journal of Social and Clinical Psychology, 17*, 167-195.
- Abel, G. G., Blanchard, E. B., & Barlow, D. H. (1981). Measurement of sexual arousal in several paraphilias: The effects of stimulus modality, instructional set and stimulus content on the objective. *Behaviour Research and Therapy, 19*, 25-33.
- Anderson, A. K., & Phelps, E. A. (2001). Lesions of the human amygdala impair enhanced perception of emotionally salient events. *Nature, 411*, 305-309
- Ariely, D., & Loewenstein, G. (2006). The heat of the moment: The effect of sexual arousal on sexual decision-making. *Journal of Behavioral Decision Making, 19*, 87-98.

- Arnell, K. M., Killman, K. V., & Fijavz, D. (2007). Blinded by emotion: Target misses follow attention capture by arousing distractors in RSVP. *Emotion, 7*, 465-477.
- Arnold, P., Fletcher, S., & Farrow, R. (2002). Condom use and psychological sensation seeking by college students. *Sexual and Relationship Therapy, 17*, 355-365.
- Baker, M. D., & Maner, J. K. (2008). Risk-taking as a situationally sensitive male mating strategy. *Evolution and Human Behavior, 29*, 391-395.
- Baker, M. D., & Maner, J. K. (2009). Male risk-taking as a context-sensitive signalling device. *Journal of Experimental Social Psychology, 45*, 1136-1139.
- Bancroft, J., Janssen, E., Carnes, L. Goodrich, D., Strong, D., & Long, J. S. (2004). Sexual activity and risk-taking in young heterosexual men: The relevance of sexual arousability, mood, and sensation-seeking. *Journal of Sexual Research, 41*, 181-192.
- Beck, R. C., & Triplett, M. F. (2009). Test-retest reliability of a group-administered, paper-pencil measure of delay discounting. *Experimental and Clinical Psychopharmacology, 17*, 345-355.
- Benzion, U., Rapoport, A., & Yagil, J. (1989). Discount rates inferred from decisions: An experimental study. *Management Science, 33*, 270-284.
- Blanton H., & Gerrard, M. (1997). Effect of sexual motivation on men's risk perception for sexually transmitted disease: There must be 50 ways to justify a lover. *Health Psychology, 16*, 374-379.
- Bodero, J., Moore, S., & Rosenthal, D. (1992). Intention, context, and safe sex: Australian adolescents' responses to AIDS. *Journal of Applied Social Psychology, 22*, 1374-1396.

- Bohner, G., Jarvis, C. I., Eyssel, F., & Siebler, F. (2005). The causal impact of rape myth acceptance on men's rape proclivity: Comparing sexually coercive and noncoercive men. *European Journal of Social Psychology, 35*, 819-828.
- Boudreaux, E., Kilpatrick, D. G., Resnick, H. S., Best, C. L., & Saunders, B. E. (1998). Criminal victimization, post-traumatic stress disorder, and comorbid psychopathology among a community sample of women. *Journal of Traumatic Stress, 11*, 665-678.
- Bouffard, J. A. (2002). The influence of emotion on rational decision making in sexual aggression. *Journal of Criminal Justice, 30*, 121-134.
- Brecklin, L. K. & Ullman, S. E. (2002). The roles of victim and offender alcohol use in sexual assaults: Results from the National Violence against Women Survey. *Journal of Studies on Alcohol, 63*, 57-63.
- Burt, M. R. (1980). Cultural myths and supports for rape. *Journal of Personality and Social Psychology, 38*, 217-230.
- Buss, D. M. (2006). Strategies of human mating. *Psychological Topics, 2*, 239-260.
- Buss, D. M. (2007). The evolution of human mating. *Acta Psychologica Sinica, 39*, 502-512.
- Byers, E. S. (1988). Effects of Sexual Arousal on Men's and Women's Behavior in Sexual Disagreement Situations. *The Journal of Sex Research, 25*, 235-254.
- Casey, E. A., Beadnell, B., & Lindhorst, T. P. (2009). Predictors of sexually coercive behavior in a nationally representative sample of adolescent males. *Journal of Interpersonal Violence, 24*, 1129.

- Chivers, M. L., & Bailey, J. M. (2005). A sex difference in features that elicit genital response. *Biological Psychology, 70*, 115-120.
- Chivers, M. L., Rieger, G., Latty, E., & Bailey, J.M. (2004). A sex difference in the specificity of sexual arousal. *Psychological Science, 15*, 736-744.
- Combs-Lane, A. M., & Smith, D. W. (2002) The risk of sexual victimization in college women: The role of behavioral intentions and risk-taking behaviors. *Journal of Interpersonal Violence, 17*, 165-183.
- Davis, K. C., Norris, J., George, W. H., Martell, J., & Heiman, J. R. (2006). Rape-myth congruent beliefs in women resulting from exposure to violent pornography: Effects of alcohol and sexual arousal. *Journal of Interpersonal Violence, 21*, 1208-1223.
- Ditto, P. H., Pizarro, D. A., Epstein, E. B., Jacobson, J. A., & MacDonald, T. K. (2006). Visceral influences on risk-taking behavior. *Journal of Behavioral Decision Making, 19*, 99-113.
- Dowsley, G. A. (1996). *Self-perceived mating success and the mating choice of young males and females over a three month period*. Unpublished undergraduate honours thesis. Queen's University, Kingston, Ontario, Canada
- Drieschner, K., & Lange, A. (1999). A review of cognitive factors in the etiology of rape: Theories, empirical studies, and implications. *Clinical Psychology Review, 19*, 57-77.
- Eckel, C. C., & Grossman, P. J. (2002). Sex differences and statistical stereotyping in attitudes toward financial risk. *Evolution and Human Behavior, 23*, 281-295.
- Emm, D., & McKenry, P. C. (1988). Coping with victimization: The impact of rape on

- female survivors, male significant others, and parents. *Contemporary Family Therapy, 10*, 272-279.
- Eysenck, S. B. G., Pearson, P. R., Easting, G., & Allsopp, J. F. (1985). Age norms for impulsiveness, venturesomeness and empathy in adults. *Personality and Individual Differences, 6*, 613-619.
- Fessler, D. M. T., Pillsworth, E. G., & Flanson, T. J. (2004). Angry men and disgusted women: An evolutionary approach to the influence of emotions on risk taking. *Organizational Behavior and Human Decision Processes, 95*, 107-123.
- Fisher, B. S., Cullen, F. T., & Turner, M. G. (2000). *The sexual victimization of college women* (Publication No. NCJ 182369). Washington, DC: U.S. Department of Justice.
- George, W. H., Davis, K. C., Norris, J., Heiman, J. R., Stoner, S. A., Schacht, R. L., ... & Kajumulo, K. F. (2009). Indirect effects of acute alcohol intoxication on sexual risk-taking: The roles of subjective and physiological sexual arousal. *Archives of Sexual Behavior, 38*, 498-513.
- Gidycz, C. A., Coble, C., Latham, L., & Layman, M. J. (1993). Sexual assault experience in adulthood and prior victimization experiences. *Psychology of Women Quarterly, 17*, 151-168.
- Gonzales, A. R., Schofield, R. B., & Schmitt, G. R. (2006). *Extent, nature, and consequences of rape victimization: Findings from the national violence against women survey* (Publication No. NCJ 210346). Washington, DC: Department of Justice.
- Gottschall, J. A., & Gottschall, T. A. (2003). Are pre-incident rape-pregnancy rates higher

- than per-incident consensual pregnancy rates? *Human Nature*, 14, 1-20.
- Harrington, N. T., & Leitenberg, H. (1994). Relationship between alcohol consumption and victim behaviors immediately preceding sexual aggression by an acquaintance. *Violence and Victims*, 9, 315-324.
- Harris, G. T., Rice, M. E., Quinsey, V. L., & Chaplin, T. C. (1996). Viewing time as a measure of sexual interest among child molesters and normal heterosexual men. *Behaviour Research and Therapy*, 34, 389-394.
- Hoyle, R. H., Fejfar, M. C., & Miller, J. D. (2000). Personality and sexual risk-taking: A quantitative review. *Journal of Personality*, 68, 1203-1231.
- Humphrey, J. A., & White, J. W. (2000) Women's vulnerability to sexual assault from adolescence to young adulthood. *Journal of Adolescent Health*, 27, 419-424.
- Hunt, M. K., Hopko, D. R., Bare, R., Lejuez, C. W., & Robinson, E. V. (2005). Construct validity of the balloon analogue risk task (BART): Associations with psychopathy and impulsivity. *Assessment*, 12, 416-428.
- Israel, E., & Strassberg, D. S. (2009). Viewing time as an objective measure of sexual interest in heterosexual men and women. *Archives of Sexual Behavior*, 38, 551-558.
- Jespersen, A. F., Lalumière, M. L., & Seto, M. C. (2009). Sexual abuse history among adult sex offenders and non-sex offenders: A meta-analysis. *Child Abuse and Neglect*, 33, 179-192.
- Kanin, E. J. (1984). Date rape: Unofficial criminals and victims. *Victimology*, 9, 95-108.
- Kanin, E. J., & Parcell, S. R. (1977). Sexual aggression: A second look at the offended female. *Archives of Sexual Behavior*, 6, 67-76.

- Kirby, K. N. (1997). Bidding on the future: Evidence against normative discounting of delayed rewards. *Journal of Experimental Psychology: General*, *126*, 54-70.
- Kirby, K. N., & Marakovic, N. E. (1996). Delay-discounting probabilistic rewards: Rates decrease as amounts increase. *Psychonomic Bulletin and Review*, *3*, 100–104.
- Kirby, K. N., Petry, N. M., & Bickel, W. K. (1999). Heroin Addicts have higher discount rates for delayed rewards than non-drug-using controls. *Journal of Experimental Psychology: General*, *128*, 78-87.
- Koss, M. P., & Dinero, T. E. (1989). Discriminant analysis of risk factors for sexual victimization among a national sample of college women. *Journal of Consulting and Clinical Psychology*, *57*, 242–250.
- Koss, M. P., & Gidycz, C. A. (1985). Sexual experiences survey- reliability and validity. *Journal of Consulting and Clinical Psychology*, *53*, 422-423.
- Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting Clinical Psychology*, *55*, 162-170.
- Lalumière, M. L., Harris, G. T., Quinsey, V. L., & Rice, M. E. (2005). *The causes of rape: Understanding individual differences in male propensity for sexual aggression*. Washington, DC: American Psychological Association.
- Lalumière, M. L., & Quinsey, V. L. (1996). Sexual deviance, antisociality, mating effort, and the use of sexually coercive behaviors. *Personality and Individual Differences*, *21*, 33-48.

- Lang, A. R., Searles, J., Lauerman, R., & Adesso, V. (1980). Expectancy, alcohol, and sex guilt as determinants of interest in and reaction to sexual stimuli. *Journal of Abnormal Psychology, 89*, 644-653.
- Lejuez, C. W., Read, J. P., Kahler, C. W., Richards, J. B., Ramsey, S. E., Stuart, G. L., ... & Brown, R. A. (2002). Evaluation of a behavioral measure of risk taking: The balloon analogue risk task (BART). *Journal of Experimental Psychology: Applied, 8*, 75-84.
- Levin, R. J. (2005). Sexual arousal--Its physiological roles in human reproduction. *Annual Review of Sex Research, 16*, 154-189.
- Lisak, D., & Roth, S. (1988). Motivational factors in nonincarcerated sexually aggressive men. *Journal of Personality and Social Psychology, 55*, 795-802.
- Loewenstein, G., Nagin, D., & Paternoster, R. (1997). The effect of sexual arousal on expectations of sexual forcefulness. *Journal of Research in Crime and Delinquency, 34*, 443-473.
- Loh, C., Gidycz, C. A., Lobo, T. R., & Luthra, R. (2005). A prospective analysis of sexual assault perpetration. *Journal of Interpersonal Violence, 20*, 1325-1348.
- MacDonald, T. K., MacDonald, G., Zanna, M. P., & Fong, G. (2000). Alcohol, sexual arousal, and intentions to use condoms in young men: Applying alcohol myopia theory to risky sexual behavior. *Health Psychology, 19*, 290-298.
- Maisto, S. A., Carey, M. P., Carey, K. B., & Gordon, C. M. (2002). The effects of alcohol and expectancies on risk perception and behavioural skills relevant to safer sex among heterosexual young adult women. *Journal of Studies on Alcohol, 63*, 476-485.

- Malamuth, N. M. (1981). Rape proclivity among males. *Journal of Social Issues, 37*, 138-157.
- Malamuth, N. M. (1986). Prediction of naturalistic sexual aggression. *Journal of Personality and Social Psychology 50*, 953–962.
- Malamuth, N. M., & Check, J. V. P. (1980). Sexual arousal to rape and consenting depictions: The importance of the woman's arousal. *Journal of Abnormal Psychology 89*, 763–766.
- Malamuth, N. M., Sockloskie, R. J., Koss, M. P., & Tanaka, J. S. (1991). Characteristics of aggressors against women: Testing a model using a national sample of college students. *Journal of Consulting and Clinical Psychology, 59*, 670-681.
- Marshall, W. A., & Tanner, J. M. (1969). Variations in pattern of pubertal changes in girls. *Archives of Disease in Childhood, 44*, 291-303.
- Marshall, W. A., & Tanner, J. M. (1970). Variations in pattern of pubertal changes in boys. *Archives of Disease in Childhood, 45*, 13-23.
- Marx, B. P., Van Wie, V., & Gross, A. M. (1996). Date rape risk factors: A review and methodological critique of the literature. *Aggression and Violent Behavior, 1*, 27-45.
- Mishra, S., Lalumière, M. L., Williams, R. J. (2010). Gambling as a form of risk-taking: Individual differences in personality, behavioral preferences for risk, and risk-accepting attitudes. *Personality and Individual Differences, 49*, 616-621.
- Most, S. B., Smith, S. D., Cooter, A. B., Levy, B. N., & Zald, D. H. (2007). The naked truth: Positive, arousing distractors impair rapid target perception. *Cognition and Emotion, 21*, 964-981.

- Muehlenhard, C. L., Friedman, D. E., & Thomas, C. M. (1985). Is date rape justifiable: The effects of dating activity, who initiated, who paid, and men's attitudes toward women. *Psychology of Women Quarterly* 9, 297–310.
- Muehlenhard, C. L., & Linton, M. A., (1987). Date rape and sexual aggression in dating situations: Incidence and risk factors. *Journal of Counseling Psychology*, 34, 186–196.
- Nordgren, L. F., van der Pligt, J., & van Harreveld, F. (2007). Evaluating Eve: Visceral states influence the evaluation of impulsive behavior. *Journal of Personality and Social Psychology*, 93, 75-84.
- Norris, J., Masters, N. T., & Zawacki, T. (2004). Cognitive mediation of women's sexual decision making: The influence of alcohol, contextual factors, and background variables. *Annual Review of Sex Research*, 15, 258-296.
- Ohmura, Y., Takahashi, T., Kitamura, N., & Wehr, P. (2006). Three-month stability of delay and probability discounting measures. *Experimental and Clinical Psychopharmacology*, 14, 318-328.
- Osman, S. L. (2003). Predicting men's rape perceptions based on the belief that "no" really means "yes." *Journal of Applied Social Psychology*, 33, 683-692.
- Pacific Psychological Assessment Corporation (PPAC). (2004). *The NRP (Not Real People) stimulus set for assessment of sexual interest*. Victoria, BC, Canada.
- Petty, G. M., & Dawson, B. (1989). Sexual aggression in normal men: Incidence, beliefs, and personality characteristics. *Personality and Individual Differences*, 10, 355-362.
- Poppen, P. J. (1995). Gender and patterns of sexual risk taking in college students. *Sex*

Roles, 32, 545-555.

- Powell, M., & Ansic, D. (1997). Gender differences in risk behaviour in financial decision-making: An experimental analysis. *Journal of Economic Psychology*, 18, 605-628.
- Quinsey, V. L., Ketsetzis, m., Earls, C., & Karamanoukian, A. (1996). Viewing time as a measure of sexual interest. *Ethology and Sociobiology*, 17, 341-354.
- Rapaport, K., & Burkhart, B. R. (1984). Personality and attitudinal characteristics of sexually coercive college males. *Journal of Abnormal Psychology*, 93, 216–221.
- Ridgeway, D., & Russell, J. A. (1980). Reliability and validity of the sensation-seeking scale- psychometric problems in form-v. *Journal of Consulting and Clinical Psychology*, 48, 662-664.
- Steele, C. M., & Josephs, R. A. (1990). Alcohol myopia: Its prized and dangerous effects. *American Psychologist*, 45, 921-933.
- Sundberg, S. L., Barbaree, H. E., & Marshall, W. L. (1991). Victim blame and the disinhibition of sexual arousal to rape vignettes. *Violence and Victims*, 6, 103–120.
- Suschinsky, K. D. (2006). An examination of psychophysiological measures of sexual arousal (Master's thesis). Retrieved from the University of Lethbridge.
- Suschinsky, K. D., Lalumière, M.L., & Chivers, M.L. (2009). Sex differences in patterns of genital sexual arousal: Measurement artifacts or true phenomena? *Archives of Sexual Behavior*, 38, 559-573.
- Symons, D. (1979). *The evolution of human sexuality*. New York: Oxford University Press.

- Tabachnik, B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics* (4th ed.). New York: Harper Collins.
- Tanner, J. M. (1962). *Growth at adolescence*. Springfield, Illinois: Thomas.
- Testa, M. (2002). The impact of men's alcohol consumption on perpetration of sexual aggression. *Clinical Psychology Review, 22*, 1239-1263.
- Testa, M., & Dermen, K. H. (1999). The differential correlates of sexual coercion and rape. *Journal of Interpersonal Violence, 14*, 548 - 561.
- Trivers, M. L. (1972). Mother-offspring conflict. *American Zoologist, 12*, 648-648.
- Van den Bergh, B., & Dewitte, S. (2006). Digit ratio (2D:4D) moderates the impact of sexual cues on men's decisions in ultimatum games. *Proceedings of the Royal Society Biological Sciences, 273*, 2091-2095.
- Vicary, J. R., Klingaman, L. R., & Harkness, W. L. (1995). Risk factors associated with date rape and sexual assault of adolescent girls. *Journal of Adolescence, 18*, 289-306.
- Ward, A., Mann, T., Westling, E. H., Creswell, J. D., Ebert, J. P., & Wallaert, M. (2008). Stepping up the pressure: Arousal can be associated with a reduction in male aggression. *Aggressive Behavior, 34*, 584-592.
- White, T. L., Lejuez, C. W., & de Wit, H. (2008). Test-retest characteristics of the balloon analogue risk task (BART). *Experimental and Clinical Psychopharmacology, 16*, 565-570.
- Wilson, M., & Daly, M. (1985). Competitiveness, risk-taking, and violence: The young male syndrome. *Ethology and Sociobiology, 6*, 59-73.

- Wilson, M., & Daly, M. (2004). Do pretty women inspire men to discount the future? *Proceedings of the Royal Society Biological Sciences*, 271, S177-S179.
- Yeater, E. A., Treat, T. A., Viken, R. J., & McFall, R. M. (2010). Cognitive processes underlying women's risk judgments: Associations with sexual victimization history and rape myth acceptance. *Journal of Consulting and Clinical Psychology*, 78, 375-386.
- Zamansky, H. S. (1956). A technique for measuring homosexual tendencies. *Journal of Personality*, 24, 436-448.
- Zuckerman, M. (1994). *Behavioural expressions and biosocial bases of sensation seeking*. Cambridge: Cambridge University Press.
- Zuckerman, M., Eysenck, S., & Eysenck, H. J. (1978). Sensation seeking in England and America: Cross-cultural, age, and sex comparisons. *Journal of Consulting and Clinical Psychology*, 46, 139-149.
- Zuckerman, M., & Link, K. (1968). Construct validity for sensation-seeking scale. *Journal of Consulting and Clinical Psychology*, 32, 420.

APPENDIX 1

Recruitment Advertisements

Course Website Advertisement

Decision-Making Study Recruitment

We are looking for adult, heterosexual female and male volunteers to participate in a study regarding how different kinds of emotions affect decision-making. The study is being conducted by Gillian Kennedy, a Masters student in Psychology. Participation in the study involves answering questionnaires about your sexuality, emotion regulation, and aggression, as well as participating in various decision-making tasks after exposure to different video clips. You will be exposed to erotic video clips or pictures.

*You must be between the ages of 18 and 25 to participate.

*Participation in the study is confidential and all data collected will remain completely anonymous.

The study will take approximately 1 hour to complete. As a thank you for your time you will receive two (2) course credits for your participation.

If you are interested in participating, please contact Gillian Kennedy at decisionmakingresearch@gmail.com or by phone at 403-380-1877.

APPENDIX 2

Risky Choice Task

Risky Choice Task

Instructions: There are six rounds to this game. For each round, you must choose one option, either option 1 or option 2. Each decision should be made independently of the decision made in every other round.

Round 1

1. \$3.00 guaranteed
2. 80% probability (8 out of 10) of receiving \$3.75

Round 2

1. \$3.00 guaranteed
2. 60% probability (6 out of 10) of receiving \$5.00

Round 3

1. \$3.00 guaranteed
2. 40% probability (4 out of 10) of receiving \$7.50

Round 4

1. \$3.00 guaranteed
2. 30% probability (3 out of 10) of receiving \$10.00

Round 5

1. \$3.00 guaranteed
2. 20% probability (2 out of 10) of receiving \$15.00

Round 6

1. \$3.00 guaranteed
2. 10% probability (1 out of 10) of receiving \$30.00

APPENDIX 3

Future Discounting

Choose one of the two options.

- | | | | |
|-----|--------------|----|-----------------|
| 1. | \$34 tonight | or | \$35 in 43 days |
| 2. | \$53 tonight | or | \$55 in 55 days |
| 3. | \$83 tonight | or | \$85 in 35 days |
| 4. | \$27 tonight | or | \$30 in 35 days |
| 5. | \$48 tonight | or | \$55 in 45 days |
| 6. | \$65 tonight | or | \$75 in 50 days |
| 7. | \$21 tonight | or | \$30 in 75 days |
| 8. | \$47 tonight | or | \$60 in 50 days |
| 9. | \$30 tonight | or | \$35 in 20 days |
| 10. | \$40 tonight | or | \$65 in 70 days |
| 11. | \$67 tonight | or | \$85 in 35 days |
| 12. | \$50 tonight | or | \$80 in 70 days |
| 13. | \$25 tonight | or | \$35 in 25 days |
| 14. | \$40 tonight | or | \$55 in 25 days |
| 15. | \$45 tonight | or | \$70 in 35 days |
| 16. | \$16 tonight | or | \$30 in 35 days |
| 17. | \$32 tonight | or | \$55 in 20 days |
| 18. | \$40 tonight | or | \$70 in 20 days |
| 19. | \$15 tonight | or | \$35 in 10 days |
| 20. | \$24 tonight | or | \$55 in 10 days |
| 21. | \$30 tonight | or | \$85 in 14 days |

APPENDIX 4

Questionnaires



Date (DD/MM/YY): ___ / ___ / ___

Participant Code: _____

Decision- Making Study

Gillian Kennedy, M.Sc Candidate

Please note that this study is completely confidential and anonymous. Your name cannot be linked to your responses and responses will not be examined before the study is completed. Please answer as honestly as possible.

University of
Lethbridge





Please answer the following questions by filling in the blank or placing a checkmark in the circle next to the answer that is most representative of you.

1. Age: _____
2. Date of Birth (DD/MM/YY): ___ / ___ / ___
3. Relationship Status:

<input type="radio"/> Single	<input type="radio"/> Married
<input type="radio"/> Dating	<input type="radio"/> Common Law
<input type="radio"/> Engaged	<input type="radio"/> Divorced
<input type="radio"/> Widowed	
4. If you are currently in a relationship please state the length of that relationship:
_____ years **OR** _____ months
5. How many children do you have? _____
6. Ethnic Background:

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Caucasian	African	First	Asian	Other (please specify)	
	American	Nations			
7. Highest Level of Education Completed:
 - Completed Grade 8
 - Some high school completed (grades 9-11)
 - Graduated from high school, or equivalent
 - Vocational, trade or business school completed
 - Community college – currently attending or completed diploma
 - University – currently attending or completed bachelor's degree
 - Graduate or professional school (M.A., Ph.D., M.B.A., M.D.) – currently attending or completed degree
8. University Major (if applicable): _____ Year of Study: _____ GPA: _____
9. How many siblings do you have:

a. older brothers _____	b. younger brothers _____
c. older sisters _____	d. younger sisters _____
10. How many siblings do you have that are biologically related to you through your mother:

a. older brothers _____	b. younger brothers _____
c. older sisters _____	d. younger sisters _____



11. Sexual Orientation: _____
 Heterosexual Bisexual Homosexual Other (please specify)
12. Which hand do you use predominately to write with? Left Right
13. Are you currently employed at a paid job?
 Yes, full-time Yes, part-time
 No, full-time student No, full-time homemaker
 No, retired No, currently unemployed
- If yes, what is your current position/title? _____
14. What is the total amount of money your household earned last year?
 Less than \$10 000 \$40 001 to \$50 000
 \$10 001 to \$20 000 \$50 001 to \$75 000
 \$20 001 to \$30 000 \$75 000 to \$100 000
 \$30 001 to \$40 000 More than \$100 000
15. Did you engage in physical exercise today? Yes No
16. If yes, how many hours did you exercise before coming into the laboratory today? _____
17. Did you use any of the following substances or beverages today? Please check all that apply.
 Beverage containing caffeine (e.g., coffee, tea, Coke, Mountain Dew)
 Alcohol
 Marijuana
 Tobacco
 Other recreational drug
 I did not use any of these substances/beverages
18. Do you have a history of mental illnesses? Yes No
19. If yes, please list them: _____

20. Did you take any medications today? Yes No
21. If yes please list what you took: _____

22. Do you currently have a sexually transmitted disease? Yes No
23. If yes, please list them: _____



24. Have you ever been arrested? Yes No
25. If yes, at what age were you first arrested? _____
26. Have you ever been charged with a crime? Yes No
27. If yes, at what age were you first charged? _____
28. Have you ever been convicted or found guilty of committing an offense? Yes No
29. If yes, at what age were you first convicted? _____
30. Have you ever been incarcerated? Yes No
31. If yes, at what age were you first incarcerated? _____
32. How many times have you been incarcerated? _____
33. If yes, what is the longest time period that you were incarcerated? ___ years **OR** ___ months
34. Have you ever committed a violent offense (eg., assault)? Yes No
35. If yes, were you (select all that apply):
- arrested
 - charged
 - convicted/found guilty
 - incarcerated
 - not arrested
36. Have you ever committed a sexual offense (eg., rape)? Yes No
37. If yes, were you (select all that apply):
- arrested
 - charged
 - convicted/found guilty
 - incarcerated
 - not arrested



Please answer the following questions by checking the appropriate circle, circling the appropriate number, or by filling in the blanks.

- | | | |
|---|-----------------------|-----------------------|
| | YES | NO |
| 1. Were you ever arrested prior to the age of 16 years ? | <input type="radio"/> | <input type="radio"/> |
| 2. Did you live with both of your natural parents up until the age of 16 years ? | <input type="radio"/> | <input type="radio"/> |

If you answered **NO** to the previous question, please answer questions 3 and 4. If you answered **YES** to the previous question please skip to question 5.

- | | | |
|--|-----------------------|-----------------------|
| 3. Were you separated from your natural parents for more than 1 month? | <input type="radio"/> | <input type="radio"/> |
| 4. What was (were) the reason(s) for the separation? (for example, death of a parent, one parent left, divorce, abandonment, removed from home, institutionalization): _____ | | |
| 5. Did you get in a lot of physical fights (excluding siblings) prior to 16 years of age? | | |

1	2	3	4	5	6	7
No Fights		Some Fights			A lot of Fights	

6. Please indicate whether or not you engaged in any of the following behaviors prior to **15 years** of age:

- | | | |
|--|-----------------------|-----------------------|
| | YES | NO |
| Initiating physical fights often | <input type="radio"/> | <input type="radio"/> |
| Lying often | <input type="radio"/> | <input type="radio"/> |
| Running away from home overnight (at least twice, or once without returning) | <input type="radio"/> | <input type="radio"/> |
| Stealing (including forgery) | <input type="radio"/> | <input type="radio"/> |
| Fire-setting (deliberately) | <input type="radio"/> | <input type="radio"/> |
| Skipping school often | <input type="radio"/> | <input type="radio"/> |
| Breaking into a car, house, or building | <input type="radio"/> | <input type="radio"/> |
| Vandalism (other than fire-setting) | <input type="radio"/> | <input type="radio"/> |
| Cruelty to animals | <input type="radio"/> | <input type="radio"/> |
| Forcing sexual activity on another persons | <input type="radio"/> | <input type="radio"/> |
| Using a weapon in more than one fight | <input type="radio"/> | <input type="radio"/> |
| Physically cruel to people | <input type="radio"/> | <input type="radio"/> |

7. Did you ever have discipline problems or attendance problems (skipping class) in elementary school?

1	2	3	4	5	6	7
No Problems		Some Problems			Serious Problems	

8. Were you ever suspended or expelled from school? Yes No

9. Have you ever felt that, as a teenager, you had problems with alcohol (i.e., that your drinking interfered in some way with your life)?

1	2	3	4	5	6	7
No Problems		Some Problems			Serious Problems	

10. Do you feel that one or both of your parents had a drinking problem while you were growing up? Yes No



For each item identified below, circle the number to the right that best reflects your level of agreement with each statement. Please use the scale to the right as a reference.

**1 – Strongly Agree
2 – Somewhat Agree
3 – Somewhat Disagree
4 – Strongly Disagree**

1. Success is based on survival of the fittest; I am not concerned about losers.	1	2	3	4
2. I find myself in the same kinds of trouble, time after time.	1	2	3	4
3. For me, what's right is whatever I can get away with.	1	2	3	4
4. I am often bored.	1	2	3	4
5. In today's world, I feel justified in doing anything I can get away with to succeed.	1	2	3	4
6. I find that I am able to pursue one goal for a long time.	1	2	3	4
7. My main purpose in life is getting as many goodies as I can.	1	2	3	4
8. I don't plan anything very far in advance.	1	2	3	4
9. Making a lot of money is my most important goal.	1	2	3	4
10. I quickly lose interest in tasks I start.	1	2	3	4
11. I let others worry about higher values, my main concern is with the bottom line.	1	2	3	4
12. Most of my problems are due to the fact that other people just don't understand me.	1	2	3	4
13. People who are stupid enough to get ripped off usually deserve it.	1	2	3	4
14. Before I do anything, I carefully consider the possible consequences.	1	2	3	4
15. Looking out for myself is my top priority.	1	2	3	4
16. I have been in a lot of shouting matches with other people.	1	2	3	4
17. I tell other people what they want to hear so that they will do what I want them to.	1	2	3	4
18. When I get frustrated, I often "let off steam" by blowing my top.	1	2	3	4
19. I would be upset if my success came at someone else's expense.	1	2	3	4
20. Love is overrated.	1	2	3	4
21. I often admire a really clever scam.	1	2	3	4
22. I make a point of trying not to hurt others in pursuit of my goals.	1	2	3	4
23. I enjoy manipulating others' feelings.	1	2	3	4
24. I feel bad if my words or actions cause someone else to feel emotional pain.	1	2	3	4
25. Even if I were trying very hard to sell something, I wouldn't lie about it.	1	2	3	4
26. Cheating is not justified because it is unfair to others.	1	2	3	4



Please place a checkmark for each number beside the phrase that you feel is most representative of you. Please do not skip any numbers, even if you are not sure of your answer.

1. I like “wild” uninhibited parties
 I prefer quiet parties with good conversations
2. There are some movies I enjoy seeing a second or even third time
 I can’t stand watching a movie that I’ve seen before
3. I often wish I could be a mountain climber
 I can’t understand people who risk their necks climbing mountains
4. I dislike all body odours
 I like some of the earthy body smells
5. I get bored seeing the same old faces
 I like the comfortable familiarity of everyday friends
6. I like to explore a strange city or section of town by myself, even if it means getting lost
 I prefer a guide when I am in a place I don’t know well
7. I dislike people who do or say things just to shock or upset others
 When you can predict almost everything a person will do or say, he or she must be a bore
8. I usually don’t enjoy a movie or play where I can predict what will happen in advance
 I don’t mind watching a movie or play where I can predict what will happen in advance
9. I have tried marijuana or would like to
 I would never smoke marijuana
10. I would not like to try any drug which might produce strange and dangerous effects on me
 I would like to try some of the new drugs that produce hallucinations
11. A sensible person avoids activities that are dangerous
 I sometimes like to do things that are a little frightening
12. I dislike “swingers” (people who are uninhibited and free about sex)
 I enjoy the company of real “swingers”
13. I find that stimulants make me uncomfortable
 I often like to get high (drinking liquor or smoking marijuana)



14. I like to try new foods that I have never tasted before
 I order the dishes with which I am familiar, so as to avoid disappointment and unpleasantness
15. I enjoy looking at home movies and travel slides
 Looking at someone's home movies or travel slides bores me tremendously
16. I would like to take up the sport of water-skiing
 I would not like to take up water-skiing
17. I would like to try surf-board riding
 I would not like to try surf-board riding
18. I would like to take off on a trip with no pre-planned or definite routes, or timetable
 When I go on a trip I like to plan my route and timetable fairly carefully
19. I prefer the "down-to-earth" kinds of people as friends
 I would like to make friends with some of the "far-out" groups like artists or "hippies"
20. I would not like to learn to fly an airplane
 I would like to learn to fly an airplane
21. I prefer the surface of the water depths
 I would like to go scuba diving
22. I would like to meet some persons who are homosexual (men or women)
 I stay away from anyone I suspect of being "queer"
23. I would like to try parachute jumping
 I would never want to try jumping out of a plane with or without a parachute
24. I prefer friends who are excitingly unpredictable
 I prefer friends who are reliable and predictable
25. I am not interested in experience for its own sake
 I like to have new and exciting experiences and sensations even if they are a little frightening, unconventional, or illegal
26. The essence of good art is in its clarity, symmetry of form, and harmony of colours
 I often find beauty in the "clashing" colours and irregular forms of modern painting
27. I enjoy spending time in the familiar surrounding of home
 I get very restless if I have to stay around home for any length of time



28. I like to dive off the high board
 I don't like the feeling I get standing on the high board (or I don't go near it at all)
29. I like to date members of the opposite sex who are physically exciting
 I like to date members of the opposite sex who share my values
30. Heavy drinking usually ruins a party because some people get loud and boisterous
 Keeping the drinks full is the key to a good party
31. The worst social sin is to be rude
 The worst social sin is to be a bore
32. A person should have considerable sexual experience before marriage
 It's better if two married persons begin their sexual experience with each other
33. Even if I had the money I would not care to associate with flighty rich persons like those in the "jet set"
 I could conceive of myself seeking pleasure around the world with the "jet set"
34. I like people who are sharp and witty even if they do sometimes insult others
 I dislike people who have their fun at the expense of hurting the feelings of others
35. There is altogether too much portrayal of sex in movies
 I enjoy watching many of the sexy scenes in movies
36. I feel best after taking a couple of drinks
 Something is wrong with people who need liquor to feel good
37. People should dress according to some standards of taste, neatness, and style
 People should dress in individual ways even if the effects are sometimes strange
38. Sailing long distances in small crafts is foolhardy
 I would like to sail a long distance in a small but seaworthy sailing craft
39. I have no patience with dull or boring persons
 I find something interesting in almost every person I talk to
40. Skiing down a high mountain slope is a good way to end up on crutches
 I think I would enjoy the sensations of skiing fast down a high mountain slope



Please indicate how strongly you agree or disagree with each of the following statements using a scale of 1 through 7, where “1” means Strongly Disagree and “7” means Strongly Agree.

1. Once in a while I can't control the urge to strike another person. _____
2. When people are especially nice, I wonder what they want. _____
3. I tell my friends openly when I disagree with them. _____
4. I flare up quickly but get over it quickly. _____
5. I sometimes feel that people are laughing at me behind my back. _____
6. I have trouble controlling my temper. _____
7. My friends say that I'm somewhat argumentative. _____
8. I have become so mad that I have broken things. _____
9. I often find myself disagreeing with people. _____
10. I am sometimes eaten up with jealousy. _____
11. Given enough provocation, I may hit another person. _____
12. When frustrated, I let my irritation show. _____
13. If somebody hits me, I hit them back. _____
14. At times I feel I have gotten a raw deal out of life. _____
15. I can think of no good reason for ever hitting a person. _____
16. Other people always seem to get the breaks. _____
17. I get into fights a little more than the average person. _____
18. I sometimes feel like a powder keg ready to explode. _____
19. I am suspicious of overly friendly strangers. _____
20. If I have to resort to violence to protect my rights, I will. _____



Please indicate how strongly you agree or disagree with each of the following statements using a scale of 1 through 7, where “1” means Strongly Disagree and “7” means Strongly Agree.

21. I am an even-tempered person. _____
22. I wonder why sometimes I feel so bitter about things. _____
23. There are people who pushed me so far that we came to blows. _____
24. I know that "friends" talk about me behind my back. _____
25. I have threatened people before. _____
26. When people annoy me, I may tell them what I think of them. _____
27. Some of my friends think I'm a hothead. _____
28. I can't help getting into arguments when people disagree with me. _____
29. Sometimes I fly off the handle for no good reason. _____



Please check yes or no for each of the following questions.

	YES	NO
1. Do you often buy things on impulse?	<input type="radio"/>	<input type="radio"/>
2. Do you generally do and say things without stopping to think?	<input type="radio"/>	<input type="radio"/>
3. Do you often get into a jam because you do things without thinking?	<input type="radio"/>	<input type="radio"/>
4. Are you an impulsive person?	<input type="radio"/>	<input type="radio"/>
5. Do you usually think carefully before doing anything?	<input type="radio"/>	<input type="radio"/>
6. Do you often do things on the spur of the moment?	<input type="radio"/>	<input type="radio"/>
7. Do you often get involved in things you later wish you could get out of?	<input type="radio"/>	<input type="radio"/>
8. Do you mostly speak before thinking things out?	<input type="radio"/>	<input type="radio"/>
9. Do you get so 'carried away' by new and exciting ideas, that you never think of possible snags?	<input type="radio"/>	<input type="radio"/>
10. Do you need to use a lot of self-control to keep out of trouble?	<input type="radio"/>	<input type="radio"/>
11. Would you agree that almost anything enjoyable is illegal or immoral?	<input type="radio"/>	<input type="radio"/>
12. Are you often surprised by people's reactions to what you do or say?	<input type="radio"/>	<input type="radio"/>
13. Do you think an evening out is more successful if it is unplanned or arranged at the last moment?	<input type="radio"/>	<input type="radio"/>
14. Do you usually work quickly, without bothering to check?	<input type="radio"/>	<input type="radio"/>
15. Do you often change your interests?	<input type="radio"/>	<input type="radio"/>
16. Before making up your mind, do you consider all the advantages and disadvantages?	<input type="radio"/>	<input type="radio"/>
17. Do you prefer to 'sleep on it' before making decisions?	<input type="radio"/>	<input type="radio"/>
18. When people shout at you, do you shout back?	<input type="radio"/>	<input type="radio"/>
19. Do you usually make up your mind quickly?	<input type="radio"/>	<input type="radio"/>



Please fill in or check the appropriate answer.

1. I was _____ years old when I first engaged in sexual intercourse (write N/A if not applicable).
2. I have had _____ female sexual partners (involving genital contact) since puberty.
3. How many of your sexual relationships with females were casual (lasted one month or less)? _____
4. In the past month, I had sexual intercourse _____ times.
5. How many different female partners have you had sexual intercourse with in the past year? _____
6. How many different female partners have you had sex with on *one and only one* occasion? _____
7. I am presently involved in a long-term, committed, relationship: Yes No
8. I am presently sexually involved with one or more persons: Yes No
9. My longest relationship (including current relationship) lasted _____ years **OR** _____ months.
10. Have you ever paid someone to have sex with you, even once? Yes No
11. Have you ever been paid to have sex with someone, even once? Yes No
12. How many hours or days has it been since you last ejaculated? _____
13. Please think about the people you typically have sexual fantasies about. By a “sexual fantasy”, we mean sexual scenarios or daydreams you think about, and may use when masturbating and/or having sex with a partner. Would you say your sexual fantasies are about:
 - Women only
 - Women mostly, but men occasionally too
 - Women mostly, but men frequently (but not more than toward women)
 - Women and men about equally
 - Men mostly, but women frequently (but not more than toward men)
 - Men mostly, but women occasionally too
 - Men only



14. Please think about the people you have had sexual contact with. By “sexual contact,” we mean consensual contact with your or your partner’s genitals (either manual, oral, or penetration sex). Would you say that your sexual contacts have been with:

- Women only
- Women mostly, but men occasionally too
- Women mostly, but men frequently (but not more than toward women)
- Women and men about equally
- Men mostly, but women frequently (but not more than toward men)
- Men mostly, but women occasionally too
- Men only

15. How many times have you looked at sexual pictures or films?

- I have never see sexual pictures or films
- I have seen sexual pictures or films once or twice but do not use them regularly
- Less than once per month
- Once per month
- Once per week
- Several times a week
- Once a day
- Several times a day



Please fill in or circle the appropriate number.

1. How many different partners do you foresee yourself having sex with during the next five years? (please give a specific, realistic estimate). _____
2. How often do you usually fantasize about having sex with someone other than your dating partner?
 - Never
 - Once every two or three months
 - Once a month
 - Once every two weeks
 - Once a week
 - A few times each week
 - Nearly every day
 - At least once a day
 - Not applicable

For questions 3 - 5, please indicate how strongly you agree or disagree with each of the following statements using a scale of 1 through 9, where "1" means Strongly Disagree and "9" means Strongly Agree.

3. I think that sex without love is ok. _____
4. I can imagine myself being comfortable and enjoying "casual" sex with different partners. _____
5. I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him or her. _____



For questions 6 - 12, please indicate how strongly you agree or disagree with each of the following statements using a scale of 1 through 7, where “1” means Strongly Disagree and “7” means Strongly Agree.

6. I prefer short-term sexual relationships. _____
7. Ideally, I would have many sexual partners. _____
8. Ideally, I would have one steady sexual partner. _____
9. I prefer a long-term relationship with one partner. _____
10. I enter a long-term relationship because it offers me a greater guarantee of sexual relations. _____
11. I enter a long-term relationship because it offers me a greater guarantee of emotional commitment. _____
12. If I could maintain a long-term relationship with one partner while having sexual relations outside of my relationship, I would do so. _____



The following questions are based on sexual experiences that you may have had with a **WOMAN since the age of 14 years**. These questions are personal, but they have been asked of people across the country and many men report that they have had one or more of these experiences. Please answer all questions by checking the number of times the described event has occurred.

1. How many times have you had sexual contact (fondling, kissing, or petting, but **NOT** intercourse) with a woman when she didn't want to by overwhelming her with *continual arguments and pressure*?
 - Never
 - Once
 - Twice
 - Three times
 - Four times
 - Five or more times

2. How many times have you had sexual contact (fondling, kissing, or petting, but **NOT** intercourse) with a woman when she didn't want to by *using your position of authority* (boss, teacher, camp counselor, clergy member, supervisor)?
 - Never
 - Once
 - Twice
 - Three times
 - Four times
 - Five or more times

3. How many times have you had sexual contact (fondling, kissing, or petting, but **NOT** intercourse) with a woman when she didn't want to by *threatening or using some degree of physical force* (twisting her arm, holding her down, grabbing, choking, pinching in any way, restraining her movements, or physically hurting her) to make her?
 - Never
 - Once
 - Twice
 - Three times
 - Four times
 - Five or more times



The following questions are based on sexual experiences that you may have had with a **WOMAN since the age of 14 years**.

Questions 4 – 6 are about **attempted sexual intercourse**. **Attempted sexual intercourse** means when a man gets on top of a woman and tries to insert his penis inside of her vagina, but for some reason, intercourse does not occur. Whenever you see the phrase “attempted sexual intercourse” please use this definition.

4. How many times have you attempted sexual intercourse with a woman when she didn't want to by *using your position of authority* (boss, teacher, camp counselor, clergy member, supervisor) but intercourse did not occur?
- | | |
|-----------------------------|--|
| <input type="radio"/> Never | <input type="radio"/> Three times |
| <input type="radio"/> Once | <input type="radio"/> Four times |
| <input type="radio"/> Twice | <input type="radio"/> Five or more times |
5. How many times have you attempted sexual intercourse with a woman when she didn't want to by *threatening or using some degree of physical force* (twisting her arm, holding her down, grabbing, choking, pinching in any way, restraining her movements, or physically hurting her) to make her?
- | | |
|-----------------------------|--|
| <input type="radio"/> Never | <input type="radio"/> Three times |
| <input type="radio"/> Once | <input type="radio"/> Four times |
| <input type="radio"/> Twice | <input type="radio"/> Five or more times |
6. How many times have you attempted sexual intercourse with a woman when she didn't want to by *giving her alcohol or drugs*, but intercourse did not occur?
- | | |
|-----------------------------|--|
| <input type="radio"/> Never | <input type="radio"/> Three times |
| <input type="radio"/> Once | <input type="radio"/> Four times |
| <input type="radio"/> Twice | <input type="radio"/> Five or more times |



Questions 7 – 12 are about **sexual intercourse**. **Sexual intercourse** means penetration of a woman’s vagina, no matter how slight, by a man’s penis. Ejaculation is not required. Whenever you see the term “sexual intercourse” please use this definition.

7. How many times have you had sexual intercourse with a woman when she didn’t want to by overwhelming her with *continual arguments and pressure*?
- Never Three times
 Once Four times
 Twice Five or more times
8. How many times have you had sexual intercourse with a woman when she didn’t want to by *showing displeasure* (for example, sulking, making her feel guilty, swearing, getting angry, threatening to end the relationship) until you got your way?
- Never Three times
 Once Four times
 Twice Five or more times
9. How many times have you had sexual intercourse with a woman when she didn’t want to by *using your position of authority* (boss, teacher, camp counselor, clergy member, supervisor) to make her?
- Never Three times
 Once Four times
 Twice Five or more times
10. How many times have you had sexual intercourse with a woman when she didn’t want to by *giving her alcohol or drugs*?
- Never Three times
 Once Four times
 Twice Five or more times
11. How many times have you had sexual intercourse with a woman when she didn’t want to by *threatening or using some degree of physical force* (twisting her arm, holding her down, grabbing, choking, pinching in any way, restraining her movements, or physically hurting her) to make her?
- Never Three times
 Once Four times
 Twice Five or more times
12. How many times have you had sexual intercourse with a woman when she didn’t want to because *she was passed out or too intoxicated* to give consent or stop what was happening?
- Never Three times
 Once Four times
 Twice Five or more times



Questions 13 – 17 are about sex acts involving oral sex, anal sex, or penetration by objects other than a penis. Anal sex means that you put your penis in the woman's anus. Whenever you see the term "anal sex" please use this definition. Oral sex means that you put your penis in the woman's mouth or you penetrate the woman's vagina or anus with your mouth or tongue. Whenever you see the term "oral sex" please use this definition. Penetration by an object other than a penis means that you put an object in the woman's vagina, anus, or mouth. Examples of objects are a stick, bottle, or sex toy. Whenever you see the phrase "penetration by an object other than a penis" please use this definition.

13. How many times have you engaged in sex acts (anal or oral sex, or penetration by an object) with a woman when she didn't want to by *overwhelming her with continual arguments and pressure*?
- Never Three times
 Once Four times
 Twice Five or more times
14. How many times have you engaged in sex acts (anal or oral sex, or penetration by an object) with a woman when she didn't want to by *showing displeasure* (for example, sulking, making her feel guilty, swearing, getting angry, threatening to end the relationship) until you got your way?
- Never Three times
 Once Four times
 Twice Five or more times
15. How many times have you engaged in sex acts (anal or oral sex, or penetration by an object) with a woman when she didn't want to by *giving her alcohol or drugs*?
- Never Three times
 Once Four times
 Twice Five or more times
16. How many times have you engaged in sex acts (anal or oral sex, or penetration by an object) with a woman when she didn't want to by *threatening or using some degree of physical force* (twisting her arm, holding her down, grabbing, choking, pinching in any way, restraining her movements or physically hurting her) to make her?
- Never Three times
 Once Four times
 Twice Five or more times
17. How many times have you raped a woman?
- Never Three times
 Once Four times
 Twice Five or more times



Please rate how often the following statements apply to you using the rating scale, from 1 to 5, shown below:

1	2	3	4	5
Almost never (0-10%)	Sometimes (11-35%)	About half the time (36-65%)	Most of the time (66-90%)	Almost Always (91-100%)

1. I am clear about my feelings. _____
2. I pay attention to how I feel. _____
3. I experience my emotions as overwhelming and out of control. _____
4. I have no idea how I am feeling. _____
5. I have difficulty making sense out of my feelings _____
6. I am attentive to my feelings. _____
7. I know exactly how I feel. _____
8. I care about what I am feeling. _____
9. I am confused about how I feel. _____
10. When I'm upset, I acknowledge my emotions. _____
11. When I'm upset, I become angry with myself for feeling that way. _____
12. When I'm upset, I become embarrassed for feeling that way. _____
13. When I'm upset, I have difficulty getting work done. _____
14. When I'm upset, I become out of control. _____
15. When I'm upset, I believe that I will remain that way for a long time. _____
16. When I'm upset, I believe that I'll end up feeling very depressed. _____
17. When I'm upset, I believe that my feelings are valid and important. _____
18. When I'm upset, I have difficulty focusing on other things. _____



1 ————— 2 ————— 3 ————— 4 ————— 5
 Almost never Sometimes About half the time Most of the time Almost Always
 (0-10%) (11-35%) (36-65%) (66-90%) (91-100%)

19. When I'm upset, I feel out of control. _____
20. When I'm upset, I can still get things done. _____
21. When I'm upset, I feel ashamed with myself for feeling that way. _____
22. When I'm upset, I know that I can find a way to eventually feel better. _____
23. When I'm upset, I feel like I am weak. _____
24. When I'm upset, I feel like I can remain in control of my behaviours. _____
25. When I'm upset, I feel guilty for feeling that way. _____
26. When I'm upset, I have difficulty concentrating. _____
27. When I'm upset, I have difficulty controlling my behaviours. _____
28. When I'm upset, I believe there is nothing I can do to make myself feel better. _____
29. When I'm upset, I become irritated with myself for feeling that way. _____
30. When I'm upset, I start to feel very bad about myself. _____
31. When I'm upset, I believe that wallowing in it is all I can do. _____
32. When I'm upset, I lose control over my behaviours. _____
33. When I'm upset, I have difficulty thinking about anything else. _____
34. When I'm upset, I take time figuring out what I'm really feeling. _____
35. When I'm upset, it takes me a long time to feel better. _____
36. When I'm upset, my emotions feel overwhelming. _____

APPENDIX 5

Consent form



Decision-Making Study 2009- Informed Consent Form

Primary Researcher: Gillian Kennedy (M.Sc. Candidate)

Co-researcher: Dr. Martin Lalumière (Supervisor)

You are being invited to take part in a research study that involves examining how different kinds of emotions affect decision-making. The study involves answering questionnaires about your sexuality, emotion regulation, and aggression, as well as participating in various decision-making tasks after exposure to different video clips. Your participation in the study will inform researchers about how various emotions affect how people make decisions.

What will happen?

Before you complete this consent form you will have a chance to ask questions.

You will be able to complete the study in about 1 hour. We are looking for 20 heterosexual men and 20 heterosexual women to participate in this study.

The first part of the study involves being exposed to video clips and pictures. Some video clips may include sexual scenes and the pictures will show people in bathing suits. After watching the video, you will then complete a series of decision-making tasks. The decision-making tasks will involve choosing between monetary options based on your preference.

The second part of the study involves completing questionnaires about yourself, including your personal information (age, marital status, etc.), sexual experiences, sexual behaviours, sexual relationships, sexual orientation, antisocial tendencies, and emotion regulation. You will complete these questionnaires in a private room.

Compensation

You will be compensated for your time. You will receive 2 bonus marks for participating in the study. You will also receive a small monetary award for participating in the study with a small possibility of a winning up to \$100.

Risks

There is minimal risk in participating in this study. It is possible that you may feel surprised or shocked by the videos. If you feel distressed as a result of your participation, you can contact the University Counseling Services (TH 218). The phone number for Counseling Services is (403) 317-2845.

Right to Withdraw

Your participation in the study is completely voluntary. If at any point in the study you wish to stop participating, simply tell the researcher and the experiment will be stopped. You will not experience any negative consequences for your withdrawal. You will be compensated in full. Any data that was collected up until you decided to withdraw will be destroyed.

Possible benefits

There are no direct benefits to you from participating in this study. Your participation will, however, inform future research in the study of emotional arousal.

Privacy and confidentiality

Only the experimenters will have access to information about your identity. All of the information that you have given during the experiment will be stored anonymously. When you enter the study, you will be assigned a participant identification number and all information you provide will be identified by this number, not your name. All electronic records will be stored on a non-network computer (i.e., not connected to the internet), and any paper records will be stored in a locked filing cabinet in a locked office. Your name will never be mentioned in any publications, papers, or presentations that come from this study. Only the investigators will have access to your data.

Dissemination of Results

All data obtained from the current study will be reported in group form, meaning that an individual participant's data will never be reported alone. The results from the study will likely be presented in several formats, including journal articles, talks, and poster presentations.

If you have other questions

If you have any questions about this study or would like information about the results of the study, please contact the researcher in charge of the study, Gillian Kennedy, at the University of Lethbridge, (403) 380-1877. Questions regarding your rights as a participant may be addressed to the Office of Research Services, University of Lethbridge (403) 329-2747.

Signatures

To be entered into the study, you must indicate your consent below.

- I have received answers to all of my questions to my satisfaction,
- I understand that I may freely choose to stop being a part of this study at any time,
- I agree to be part of this research study and to follow the study procedures.

and am showing my consent to participate by signing here:

Name of participant (please print clearly)

Date

Signature of participant

Signature of individual obtaining consent

Date

APPENDIX 6

Script for describing study to participants

Script for Sexual Condition

Informed Consent

Before beginning the experiment and explaining the procedure, please read the following document. This is a consent form. It explains the purpose of the experiment, the potential risks, compensation and how the findings will be used. Please take your time to read the consent form. You are not obliged to sign if you do not feel comfortable participating in the experiment since participation is completely voluntary. I will leave you to read over the form. Let me know if you have any questions about the project or when you have signed the consent form.

Description of Procedure

The purpose of the experiment is to look at decision-making. Throughout the experiment I will be in a separate room, in D482 just diagonally across the hall. You can ask me questions throughout the experiment by coming to get me across the hall. Please note that you are allowed to stop the experiment at any time you would like to.

You will watch a variety of film clips in a private room. The film clips will be presented on a computer monitor and you will use headphones to hear the sound. These film clips include sexual scenes. The sexual scenes show sexual interactions between a man and woman. I just want to make sure you are comfortable with that. All we ask is that you pay attention to the scenes that you are watching.

After completing the session, you will be asked questions regarding the video clips you will see. The questions will appear on the computer monitor, and you will answer them with the mouse. The question is just a general question, so you don't need to remember anything from the movies. There are no right or wrong answers to these questions. Try to answer as honestly as possible.

Between each film clip you will be asked to complete a decision-making task that will give you the opportunity to earn real money (so you can walk away with some money today). The computer screen will explain the instructions for the tasks. The way you receive your earnings for each task is different. For one, you will just receive the earnings stated, whereas for another a randomly programmed die will appear on the screen. You will click roll and the number that comes up will associate with the earnings you get.

Once the session of videos and decision-making tasks is complete, you can come get me across the hall. I will provide you with the questionnaire package and will leave while you complete the questionnaire package.

Upon completion of the questionnaire package, the experiment is finished. I will write you a cheque for your earnings, you'll sign the course credit form and answer any questions you may have.

Overview of Procedure

- Consent
- experimenter leaves room
- watch video clips and complete decision-making tasks
- experimenter re-enters room with permission
- experimenter explains questionnaire package
- complete questionnaire package
- experimenter re-enters room with permission
- debriefing/compensation

Explanation of Questionnaire Package (to be completed once all films and session are complete)

There is an envelope with a questionnaire package inside of it. Please complete the questionnaires as honestly as possible. If you have any questions, please do not hesitate to ask me. If there are questions that you do not feel comfortable answering, I will ask you to place a star beside them, to signal that you have seen the question, but did not want to answer it. After you have finished the questionnaires, you will place the questionnaire package into the envelope you found it in, seal it, and place the sealed envelope into a box underneath the desk.

Once you have completed the questionnaire package, please come grab me and we will come back here and finish up.

Script for Neutral Condition

Informed Consent

Before beginning the experiment and explaining the procedure, please read the following document. This is a consent form. It explains the purpose of the experiment, the potential risks, compensation and how the findings will be used. Please take your time to read the consent form. You are not obliged to sign if you do not feel comfortable participating in the experiment since participation is completely voluntary. I will leave you to read over the form. Let me know if you have any questions about the project or when you have signed the consent form.

Description of Procedure

The purpose of the experiment is to look at decision-making. Throughout the experiment I will be in a separate room, in D482 just diagonally across the hall. You can ask me questions throughout the experiment by coming to get me across the hall. Please note that you are allowed to stop the experiment at any time you would like to.

You will watch a variety of film clips in a private room. The film clips will be presented on a computer monitor and you will use headphones to hear the sound. These film clips include quick scenes from a movie. Some of the scenes are from films that you may have seen. It is important that you focus your attention only on the scenes that you are watching.

After completing the session, you will be asked questions regarding the video clips you will see. The questions will appear on the computer monitor, and you will answer them with the mouse. The question is just a general question, so you don't need to remember anything from the movies. There are no right or wrong answers to these questions. Try to answer the questions as honestly as possible.

Between each film clip you will be asked to complete a decision-making task that will give you the opportunity to earn real money (so you can walk away with some money today). The computer screen will explain the instructions for the tasks. The way you receive your earnings for each task is different. For one, you will just receive the earnings stated, whereas for another a randomly programmed die will appear on the screen. You will click roll and the number that comes up will associate with the earnings you get.

Once the session of videos and decision-making tasks is complete, you can come get me across the hall. I will provide you with the questionnaire package and will leave while you complete the questionnaire package.

Upon completion of the questionnaire package, the experiment is finished. I will write you a cheque for your earnings, you'll sign the course credit form and answer any questions you may have.

Overview of Procedure

- Consent
- experimenter leaves room
- watch video clips and complete decision-making tasks
- experimenter re-enters room with permission
- experimenter explains questionnaire package
- complete questionnaire package
- experimenter re-enters room with permission
- debriefing/compensation

Explanation of Questionnaire Package (to be completed once all films and session are complete)

There is an envelope with a questionnaire package inside of it. Please complete the questionnaires as honestly as possible. If you have any questions, please do not hesitate to ask me. If there are questions that you do not feel comfortable answering, I will ask you to place a star beside them, to signal that you have seen the question, but did not want to answer it. After you have finished the questionnaires, you will place the questionnaire package into the envelope you found it in, seal it, and place the sealed envelope into a box underneath the desk.

Once you have completed the questionnaire package, please come grab me and we will come back here and finish up.

APPENDIX 7
Debriefing Form

Debriefing Form

Emotions and Decision-Making

We are interested in understanding the effects of different emotions on decision-making. Specifically, little research has examined whether the decisions we make vary under the influence of different emotions. In order to understand the influence of an emotion on behaviour, one must be currently experiencing that emotion. Research has shown that men who were not sexually aroused had less empathy for their own past sexually regrettable behaviour than did men who were in an aroused state. In other research, arousal from physical exercise has been shown to increase or decrease aggression depending on the cues in the environment. Therefore, one attempt of this study will be to further examine the role of emotions in decision-making.

The current research will help expand the knowledge and understanding of decision-making in a variety of situations. Specifically, it will help us understand how different emotions affect decision-making differently.

Thank you for participating in this study. Your time and effort is greatly appreciated. Because the study is ongoing, we ask you not to tell others about the specific research questions of the study.

If you have any further comments or questions about this research project, please contact Gillian Kennedy by e-mail at g.kennedy@uleth.ca or by telephone at (403) 380-1877 or Dr. Martin Lalumière by e-mail at martin.lalumiere@uleth.ca or by telephone at (403) 329-2406.

APPENDIX 8

Sexual Decision-Making Questions

Sexual Decision-Making Questions

1. Would you keep trying to have sex after your date says “no”?
2. Would you use a condom even if you were afraid that a date might change their mind while you went to get it?
3. Would you tell a date that you loved them to increase the chance that they would have sex with you?
4. Would you slip a date a drug to increase the chance that they would have sex with you?
5. Would you take a date to a fancy restaurant to increase your chance of having sex with them?
6. Would you always use a condom if you didn't know the sexual history of a new sexual partner?
7. Would you encourage your date to drink to increase the chance that they could have sex with you?
8. A condom interferes with sexual spontaneity.
9. A condom decreases sexual pleasure.
10. Birth control is your date's responsibility