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The Effects of Sexual Arousal on Risk-Taking and Decision-making.

by

Shayna Skakoon-Sparling

A Thesis

Submitted to the Faculty of Graduate Studies

through Psychology

in Partial Fulfilment of the Requirements for

the Degree of Master of Arts at the

University of Windsor

Windsor, Ontario, Canada

2011

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ABSTRACT

The effects of sexual arousal on men and women are emerging as an important contextual feature that can impact safer-sex decision-making. The current study investigated the effects of sexual arousal on risk-taking in general (using a modified version of Blackjack) and on decision-making related to sexual situations among both male and female participants (using hypothetical scenarios). It was found that men and women experiencing higher levels of sexual arousal displayed a greater willingness to engage in risky behaviour in the modified game of Blackjack. Sexual arousal also had an effect on sexual decision-making in the hypothetical scenarios among female participants. These findings suggest that in situations where there are strong sexually visceral cues, both men and women may have lower inhibitions and may experience impaired decision-making. This phenomenon may have serious consequences during sexual encounters, resulting in a failure to use appropriate prophylactics with casual or new sexual partners.

DEDICATION

This thesis is dedicated to my parents, who have always tried to look out for me and teach me good decision-making skills; and to my husband, Brandon, who patiently supported me through all the excitement of developing and writing this thesis.

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I would like to acknowledge the hard work of my two excellent research assistants, Thomas Sasso and Jada Macri, as well as my adviser, Dr. Ken Cramer for his enthusiastic support and encouragement.

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The Effects of Sexual Arousal on Risk-Taking and Decision-making.

University students know that the use of barrier prophylactics, like latex condoms, is important for protecting themselves from harmful Sexually Transmitted Infections (STIs; MacDonald & Hynie, 2008); yet condoms are still not being used consistently in this population (MacDonald & Hynie, 2008; Rotermann & McKay, 2009). Heterosexual couples are even less likely to make use of condoms when other forms of birth control (like a hormonal birth control pill) have been used (Gold, Karmiloff Smith, Skinner, & Morton, 1992), but these other forms of prophylactics/contraceptives will not protect individuals from contracting either an STI or HIV. Evidence of this failure to use adequate protection was found in a recent study by Rotermann and McKay (2009). They investigated the condom use habits of Canadians between the ages of 20 and 34 and found that many single adults in this age range are at an elevated risk for contracting STIs/HIV due to infrequent (or non-existent) condom use with new partners. This failure to regularly engage in safer sex practises (i.e. using barrier prophylactics) is reflected in a recent report from Health Canada, which showed an increase in the frequency of STIs such as genital chlamydia, gonorrhoea, and infectious syphilis between 2008 and 2009 (Public Health Agency of Canada, 2009). These findings are a significant health concern among the population in general, as consistent use of condoms would greatly reduce the number of STIs contracted/reported. Despite current sexual education efforts, it may be that the current inconsistent condom use among young adults springs from a lack of preparedness, which could be due to an underestimation of both the likelihood of engaging in sexual activity (MacDonald & Hynie, 2008), as well as an underestimation of the other extraneous forces that can affect decision-making – like sexual arousal (Loewenstein, 1996; Ariely & Loewenstein, 2005).

Sexual Arousal as a Contextual Visceral Influence

Research has shown that alcohol consumption may interfere with safer-sex decision-making (i.e. using condoms during sex; Freimuth et al., 1992; Zawacki et al., 2009) and sexual arousal may influence judgement in a similar way as alcohol. Sexual arousal may achieve this effect on cognition and behaviour through the influence of the strong sexually visceral stimuli present in sexual situations. These visceral cues may incite a form of myopia, or “tunnel vision”, paralleling descriptions of alcohol myopia. Here, attentional focus is placed on the object of desire (in this case, sexual gratification) and placed on the self (i.e. one’s own enjoyment/pleasure) rather than being placed on others or on past and future considerations (i.e. avoiding infections and/or unwanted pregnancy; Ditto, Pizarro, Epstein, Jacobson, & Macdonald, 2006).

Loewenstein (1996) presented a theoretical model of visceral influences and the effects they may have on cognition and subsequent behaviour. The author theorized that visceral influences may only have an effect in the modality with which they are associated; for example, a hungry person would make short-sighted decisions related to obtaining food or eating, but would not experience this effect when dealing with finances or making decisions about sexual activity. To wit, it is possible that persons who are sexually aroused may only have difficulty making rational decisions about sexual situations and not in general, but this has not yet been successfully empirically tested in both men and women. Metcalfe and Mischel (1999) further discussed the differences in cognition and behaviour under “hot” conditions (in the presence of visceral stimuli) and “cold” conditions (no visceral stimuli). Both Loewenstein (1996) and Metcalfe and Mischel (1999) posit that individuals will be more likely to make impulsive decisions when in the presence of visceral sensory input related to a desired object (e.g., viewing a

sexually explicit video would be visceral sensory input and the associated desired object would be sexual gratification). Similarly, Ditto et al. (2006) found that heterosexual male participants presented with a hypothetical safe-sex dilemma were much more likely to make an unsafe sexual choice when they had been primed with visceral stimuli (watching a video presentation of the sexual dilemma) than with non-visceral stimuli (reading about the sexual dilemma). Heterosexual male participants primed with the visceral stimuli had fewer concerns about the risks of having unprotected sex and more thoughts about the attractiveness of the female in the scenario. These findings support the concept that visceral cues can produce a narrowing of attention – in this case, the visceral cue seems to have narrowed the attentional and motivational focus of the male participants by evoking a feeling of sexual arousal, which, in turn, negatively impacted their ability to make safer sexual decisions.

In theory, this principle should hold true across both genders because, for both men and women, visceral cues are an indication that a desired object is close at hand (in this case, sexual stimuli would indicate that sexual gratification should be attainable in the near future). As Ditto et al. (2006) discuss, the most adaptive response when presented with strong visceral cues would be to focus cognitive resources on obtaining this currently accessible commodity rather than lingering on considerations of the past and future. This approach would have been a major part of life for our ancestors – when one is hungry and there is food available, it is adaptive to eat; when one is sexually aroused and a partner is available, it is adaptive to have sex (Loewenstein, 1996). If these processes are indeed an ancient and unconscious part of our behaviour, the concept of needing to consider protecting oneself from HIV and sexually transmitted infections may be too new a concept for this aspect of our cognitive system to have adapted as yet (since there may

not have been much selection pressure for protecting oneself from STIs/HIV in the Pleistocene era).

Sexual arousal is likely the major agent in the myopic narrowing of focus that follows the presentation of a sexually visceral cue. In fact, a recent study by Boldero, Moore, and Rosenthal (1992) found that participants who reported experiencing strong sexual arousal at their most recent sexual encounter were less likely to have used a prophylactic during this encounter. Indeed, a study by Suvivuo, Tossavainen, and Kontula (2009) examined the sexual scripts of young urban women and found that many of these women reported being less likely to use condoms when they experienced more intense sexual arousal during an encounter. These women seemed to report almost a sense of helplessness, which they attributed to this strong visceral influence.

Sexual arousal has gained recognition as a powerful motivational factor or drive that can play a role in risky sexual encounters. Although deprivation of sexual gratification is not life threatening, the drive to obtain it can still affect cognition in a similar way as other drives (such as thirst and hunger; Lowenstein, 1996). As described above, when individuals are motivated to fulfil this drive (in the case of sexual arousal, by having sex), they can experience “sexual myopia,” whereby the short-term aim of achieving sexual gratification seems to eclipse other long-term goals, such as preventing pregnancy and/or preventing the transmission of STIs (Blanton & Gerrard, 1997). However, much of the research in this area, including the study mentioned above by Ditto et al. (2006), has focused on the effects of sexual arousal on *men’s* judgements and decision-making, either neglecting to examine the potential effects of sexual arousal in women, or finding non-significant results.

In their study, Ariely and Loewenstein (2005) found that sexual arousal had a strong effect on participants' judgement and decision-making related to engaging in hypothetical sexual activities. To investigate sexual arousal, participants (all heterosexual males) were given laptops to enable them to complete the study in the privacy of their own homes. The laptops ran a computer program that showed participants sexually explicit images alongside a thermometer-type rating scale. Participants were instructed to masturbate (but not to orgasm) while viewing these images. Periodically, participants were asked to self-rate their subjective sexual arousal on a scale of one to one hundred percent using the thermometer-type rating scale. If participants rated their sexual arousal at seventy-five percent or higher, they were asked to answer a question about their willingness to participate in a hypothetical sexual situation. The answers participants gave to these questions when sexually aroused were compared to these same participants' answers when not sexually aroused (i.e. without the presentation of sexually explicit images and without masturbation). The authors suggested that, while experiencing a heightened state of sexual arousal, these heterosexual male participants were more willing to engage in unsafe sex, more willing to engage in morally questionable activities to gain sexual gratification, and were more interested in a wider range of sexual stimuli and activities (e.g. having sex with an underage or significantly older partner, engaging in sex acts with multiple partners, watching a woman urinate, etc). These results support the idea that sexual arousal is an agent of sexually visceral cues, and that it can narrow motivational focus. However, as mentioned previously, this study used only male participants, neglecting to study the potential effects of sexual arousal in women.

A recent study that investigated *both* male and female performance on a task designed to elicit risk taking (Baker & Maner, 2008) was unsuccessful in enhancing this

behaviour among females. In their study, the researchers showed heterosexual participants attractive photos of members of the opposite sex in an attempt to incite a “motivation to mate” and the presumed associated state of heightened sexual arousal. In the control condition, participants viewed unattractive photos of members of the opposite sex. Following the presentation of ten faces, participants were instructed to indicate their level of “mating motivation” by answering a question about their current level of motivation to pursue romantic and/or sexual goals. Participants then played 11 hands of a modified version of the card game Blackjack against a computer; this task was used to assess risk-taking. One possibility for Baker and Maner’s (2008) lack of significant results in their female group was not discussed by the authors; it could be that the stimuli employed (viz. photographs of attractive male faces) were not sufficiently stimulating to produce an effective sexual arousal response in females. It was hypothesised by the authors that the increase in risk-taking seen in male participants resulted from an *instinct* to take more risks in the hopes of obtaining sexual gratification; however, this explanation may not be equally applicable to women. The authors explained that this response pattern was due to differences in sexual behaviour between the sexes, which may have confounded the results.

An opposing argument to the influence of confounding variables in the female condition, as discussed in the previous study, might be that women as a group are less likely to have their decision-making ability affected by arousal. Alternatively, it may be that female sexual arousal levels may need to reach a higher threshold before effects may be detected. If the latter were true, it would be important for studies attempting to study the effects of sexual arousal in women to use very strong visceral cues. Regardless, the conclusions of this study are somewhat unsatisfying.

A study by Maticka-Tyndale and Herold (1997) found that permissive situations *do* occur where women seem to be just as likely to engage in sexual activity as men. For example, when university students are on vacation trips for spring break, Maticka-Tyndale and Herold (1997) found that female students are just as likely to seek sexual encounters with short-term partners as their male cohort (though this might not be the case when they are at home). Although the authors did not discuss this concept, the results of this study may lend support to the idea that men and women may be more similar in their behaviour with respect to short-term sex partners than previously thought. It may be that sexual arousal can have just as strong an effect on women's decision-making as on men, which could translate not only into more spontaneous sexual encounters but also into risky sexual decision-making during these encounters; however, as stated previously, this line of inquiry was not explored by these authors.

Sexual Arousal's Potential Impact on Sexual Decision-Making

The lack of research investigating the potential effects of sexual arousal on cognition and behaviour in women is of concern because women play a major role in heterosexual couples' condom negotiation. Condom negotiation is the first step in couples' attempts to practise safer sex; it involves the expression of the desire to use some form of barrier (e.g., male condom, female condom, dental dam) during sex, in the interest of protecting oneself from possible STI or HIV infection (and/or unwanted pregnancy if no other form of birth control is being used). Condom negotiation can occur among female-female couples and among male-male couples; here either partner is equally likely to initiate the negotiation. In heterosexual couples, either partner may initiate condom negotiation; however, it is more frequently the woman who initiates these

negotiations, due to her more vulnerable position. Women are considered to be in a more vulnerable position, in part, because male condoms are currently more popular than female condoms, thus a woman will most likely not be the one wearing the prophylactic (O'Leary, 2000). Ergo, if a woman wants to practice safer sex by using a male condom, she must convince her partner to use one, or refuse to have sex with him without a condom (Norris et al., 2009).

The *Cognitive Mediation Model*, as applied to women's sexual decision-making (Norris et al., 2004), relates women's negotiation of condom use to their personal goals as well as to the influences of contextual information. A woman might have two (or more) goals when considering engaging in sexual activity. For example, there is the goal to practise safer sex, and the goal to enjoy sexual intimacy with a partner (which may be linked to her own sexual gratification as well as a desire to please or retain a partner). Based on this model, a woman in a situation where sex is likely to occur will first, consciously or unconsciously, make a primary appraisal of the situation to determine whether the current situation is relevant to and fits with her goals. Following this, the woman will engage in a secondary appraisal of the situation; here she will determine how much control she has over the situation (i.e., is she sexually confident enough to negotiate condom use?), what her resources might be (i.e., are there condoms available?), as well as how her potential actions might be effective for realizing one or more of her goals. Both the primary and secondary appraisals are affected by contextual factors, such as alcohol consumption, the length of the relationship with the partner, and sexual arousal (Norris et al., 2004). These contextual factors are thought to have a strong impact on a woman's cognitive assessments and situational appraisals regarding condom negotiation, over and

above the effects of her personality characteristics and past experiences (Norris et al., 2004).

A woman's appraisal of the situation, along with the incumbent contextual factors, will result in a particular coping response. For example, the woman may choose (a) to have unprotected sex, or she may choose (b) to engage in condom negotiation, wherein she attempts to convince her partner that they should practise safer sex by using a condom, or some other form of barrier prophylactic (e.g., dental dam, female condom, etc).

According to Norris et al. (2004), this stage of condom negotiation involves two phases: (1) communicating her concerns and wishes to the sexual partner, followed by (2) responding to the partner's reaction. If the partner is receptive to the first phase, then condom negotiation has been successful and the initiating partner will achieve both his/her goal of enjoying sexual intimacy as well as his/her goal of practicing safer sex. If the partner is resistant during the first phase, the initiating partner will have to engage in further situational coping: s/he may decide to forgo having sex (only fulfilling the safer sex goal), or s/he may decide to engage in unsafe sex (only fulfilling the sexual intimacy goal) – neither of which is optimal.

As mentioned previously, in both casual and stable heterosexual relationships, the negotiation of condom use is often left to the woman (Norris et al., 2004); thus, if she fails in the negotiation of condom use, the woman will then be forced to decide whether she wants to have unprotected sex or to attempt to leave the situation.

Women have been found to be more likely than men to engage in unsafe sexual practices (Gold, Karmiloff, Smith, Skinner, & Morton, 1992). In fact, a study by Rotermann and McKay (2009) revealed that the percentage of heterosexual women who

reported using a condom at their last sexual encounter was significantly lower than among heterosexual men. It has been suggested that women may have more difficulty dealing with a male partner who is uncooperative with safe-sex practises than vice versa and that this may contribute to this gender difference in condom use (Wilkinson, Holahan, & Drane-Edmindson, 2002). Thus this trend may be seen because women may choose to engage in unprotected sex more often than leaving when condom negotiation fails, or because a woman may be less likely to initiate condom negotiation in a sexual situation that is already underway (i.e., when both parties may already be under the influence of increased sexual arousal).

Importantly, the high rate of people who are willing to comply with condom use when requested by a partner (Freimuth et al., 1992), suggests that condom negotiation may be a very important part of engaging in safer sexual behaviour. Because sexual arousal likely affects whether an individual (more likely to be a woman among heterosexual couples; Norris et al., 2004) decides to initiate condom negotiation, this is a very important contextual feature to investigate.

Issues Surrounding Examining the Effects of Sexual Arousal

Loewenstein's (1996) paper discusses the problematic nature of questionnaires that require respondents to recall their behaviour and motivations when they are "cold," that is, separated from the sexual situation by time and space. Under these conditions, recall and measurement of attitudes or motivations may be grossly inaccurate because the in-the-moment influence of sexually visceral stimuli is removed. Thus, it may be more valuable and methodologically reliable to use methods that will allow for an examination of risk-taking and sexual decision-making "in the heat of the moment."

As sexual arousal has proven difficult to study in past research (see Baker & Maner, 2008, reviewed earlier in this paper), a strategy needs to be implemented to more reliably elicit sexual arousal in women – using stronger visceral cues. A recent study by Suschinsky, Lalumière, and Chivers (2009) found that sexual arousal could be elicited in women (and men) using sexually explicit video clips. During pilot testing, it was established that a set of video clips from commercially available films could elicit particular subjective emotional responses (anxiety, exhilaration, sadness, happiness, sexual arousal, or neutral); a subset of these video clips was then shown to male and female participants. Following the presentation of each ninety second film clip, participants were asked a series of questions about their reaction to the clip (was it pleasant or unpleasant? How much attention had they paid to the clip? To what extent did they feel sad or happy or sexually aroused, etc?). Additionally, in the same study, the researchers used physiological measures (examining changes in genital blood flow) to confirm sexual arousal in their participants as they viewed the video clips. The results of this study suggest that sexually explicit videos can be used to induce a state of heightened sexual arousal in women (as well as in men), both physiologically and subjectively, which is what may have been lacking in studies using simpler stimuli, such as Baker and Maner's (2008) use of photographs of attractive male faces. In fact, a study by Chivers, Soto, and Blanchard (2007) found that female participants experienced stronger genital arousal, as well as higher subjective ratings of sexual arousal, when presented with filmed sexually explicit material depicting intercourse than when shown films depicting solo masturbation or nudes without sexual activity. This complements Ditto et al. (2006)'s demonstration that increasing the visceral aspects of stimuli (i.e., through the use of sexually explicit video footage) can promote more impulsive behaviour, because

motivational focus is drawn more strongly to goals related to the stimuli (viz. obtaining sexual gratification).

As we have seen in the literature reviewed above, sexual arousal may be an important contextual feature that may influence risk-taking and decision-making in both men and women. However, very little work has investigated the effects of sexual arousal in women. This is of particular concern because if higher levels of sexual arousal do indeed incite greater risk-taking in women, this could influence her situational appraisals when she is in the process of engaging in (or considering whether or not to engage in) condom negotiation. As Loewenstein (1996) has discussed, it is more methodologically reliable to study phenomena, like the effects of sexual arousal, while participants are, in fact, experiencing higher levels of sexual arousal (relying on accurate recall of past behaviour may result in inaccuracies). However, a very strong visceral cue, like sexually explicit video, may be required to attain more appropriately high levels of sexual arousal for study in both male and female participants.

The Current Project

This thesis aims to expand the research on safer-sex practices by investigating the effects of sexual arousal on risk-taking and decision-making in women, as well as men. Using the sexually explicit video clips similar to those employed in the study described previously (Suschinsky et al., 2009), I attempted to induce a heightened state of sexual arousal in female and male participants, in order to examine any effects this may have on their decision-making and risk taking behaviour. My goal was to determine whether the effects of sexual arousal on women are similar to the patterns previously seen in men (Ariely & Loewenstein, 2005; Baker & Maner, 2008); that is, whether sexual arousal can

have a detrimental effect on participants' risk taking and safer-sex behaviour (i.e. the use of barrier prophylactics), regardless of sex. To accomplish this goal, two experiments were conducted to determine whether sexual arousal has an effect on risk taking in general, or only as it relates to sexual situations, as well as to investigate possible sex differences in these areas.

In Experiment 1, the effects of sexual arousal on risk-taking were investigated in a more abstract and general sense, using a gambling card game (a modified version of Blackjack). Participants were offered a chance to make either a risky play or a safe play during ambiguous conditions – where it was not clear what the best choice of play would be. Based on the findings by Ditto et al. (2006) regarding sexual arousal's myopic effects, as well as on Baker and Maner's (2008) findings regarding sexual arousal's effect of increasing risk taking, it was hypothesized that both male and female participants experiencing a heightened state of sexual arousal would make more risky plays than their counterparts in the control condition.

Experiment 2 similarly investigated risk-taking and decision-making, but related specifically to sexual situations, using a questionnaire to present participants with hypothetical sexual situations. Based on Ariely and Loewenstein's (2005) findings regarding the negative effect of sexual arousal on sexual decision making, as well as Ditto et al.'s (2006) findings on the myopic effects of sexual arousal, it was hypothesized that both male and female participants experiencing a heightened state of sexual arousal would be more likely to report a willingness to engage in unsafe sexual activities than their counterparts in the control condition.

Sexual arousal has been linked to sexual risk-taking in both men and women in terms of their willingness to engage in condom negotiation, as well as their responses and reactions during condom negotiation (Norris et al., 2004). Clearly, this is a very important contextual feature in sexual situations that warrants further investigation and one which has not yet been given much empirical attention in this respect. Understanding more about the effects of sexual arousal on safer sex practices among both men and women is essential to gain a complete picture of the factors that affect safer sex practises in both casual and stable heterosexual relationships.

Experiment 1

Methods:

Participants.

One hundred and eighteen University of Windsor undergraduate students participated in this study and were recruited using the University of Windsor Psychology Department research participant pool. The data from participants in the experimental condition who did not attain the cut-off level of self-reported sexual arousal (a rating above three on a scale of one to ten, one being not at all sexually aroused and ten being maximally sexually aroused) were not included in the final analyses. Based on this criterion, 17 participants were excluded and the data from 101 participants were used: 67 females and 34 males. Participants ranged in age from 18 to 52 years (76% of participants were 25 years of age or younger). The mean age of participants was 24 years of age.

Potential participants were pre-screened based on age to ensure that they were eighteen years of age or older, due to the potential for exposure to adult material.

Participants were also screened to ensure that none had been previously diagnosed with a gambling addiction; this was done to decrease potential risks to participants, as Blackjack is a card game employed by casinos and may be associated with gambling. Finally, potential participants were screened based on sexual orientation; only participants who self-identified as heterosexual or bisexual and who had previously engaged in penetrative vaginal sex were included in this sample. This was done because the nature of the erotic materials used was thought to be more appealing to heterosexual individuals. Each participant took part in either Experiment 1 or Experiment 2, but not both.

Materials.

Sexually explicit video material from commercially available adult films were used to elicit sexual arousal in this experiment and was shown via a computer display. The sexually explicit video consisted of four clips. Each was approximately two-minutes in length. The clips were from adult films depicting graphic (but non-violent and non-demeaning) sex acts, including oral sex and penetrative vaginal sex (e.g., various clips from the 2007 film *Under the Covers* by Candida Royalle were used). The non-erotic control video consisted of four two-minute clips from commercially available films and documentaries on a variety of topics; these clips were non-sexual and non-violent in nature (e.g., a clip from the Pixar Film *Wall-E* was used as well as a clip from the television program *Flight of the Conchords*). The control video clips were meant to be non-sexually arousing, but entertaining, and were used to provide a sample of participants' responses when not sexually aroused for comparison with the experimental group.

General risk-taking was assessed in the form of a card game played on a computer, similar to the modified Blackjack task used by Baker and Maner (2008) to

assess risk-taking. In the modified Blackjack card game used for the current study (programmed using *MediaLab*), the goal was to “win” against the computer (which was playing pre-determined hands of cards) as many times as possible over four rounds, by achieving a score as close to twenty-one as possible without going over. In an introduction to the experiment, supervised by the researcher, participants first received instructions on how to play the game. Participants were informed that they would not actually have the opportunity to win any money, but were encouraged to see how well they could do in the game, as a challenge. Participants were shown that they would be dealt a hand of cards and were instructed to choose whether they would “stay” (not draw another card) or “hit” (draw another card). They were also informed that the computer “dealer” would never hit – the computer would always “stay” with whatever hand it had been dealt (this was done to simplify the game-play). Participants, however, were not told that the outcome of all the hands dealt in the game was predetermined. Each round of Blackjack required participants to play ten hands of cards against the computer. Of the ten hands in every round of the game, in two hands it would be obvious that the best choice is to “stay” and in another two hands it would be obvious that the best choice is to “hit”. In the remaining six hands the best option was not obvious – participants’ decisions in these ambiguous rounds were where their risk-taking behaviour was examined. In ambiguous hands the total points for the dealt hand added up to 15, 16, or 17 (see figures 1 – 3). Choosing to “hit” when dealt an ambiguous hand of cards was considered to be more risky than choosing to “stay”; by choosing to “hit,” participants ran the risk of exceeding a score of 21 and losing to the computer on that hand. The proportion of times participants chose to “hit” rather than “stay” on an ambiguous hand of Blackjack was taken as the dependent measure of risk-taking.

Procedure.

During the recruitment process, potential participants were invited to participate in a research project about sex differences in preferences regarding video clips. Although this was a deception, potential participants were informed that they might be exposed to sexual or violent material (see Appendix 1). Participants in Experiment 1 were told that this card game task was a distracter, meant to fill time in between the presentation of the video clips. A same-sex experimenter greeted participants and explained the consent form and procedures of the experiment. After agreeing to take part in this experiment, participants were randomly assigned to either the control group (where they would view the non-sexual clips) or the experimental group (where they would view the sexually explicit video clips). The random assignment occurred in advance; each session was designated as either an experimental session or a control session. The time slot a participant signed up for determined whether they would experience the control or the experimental condition. During the consent process, it was stressed that participants were free to leave the experiment at any time without penalty if they became uncomfortable with the video clips, and that they would be personally debriefed. Should this occur, participants were informed that they would be given the option to withdraw their data from the study.

Participants engaged in four blocks of activity: each block consisted of watching two minutes of video, followed by ten hands of the Blackjack card game, all on computer. The session was broken up into these four blocks of activity (two minutes of video and ten hands of the card game) in an effort to maintain a heightened state of sexual arousal in the experimental group through repeated exposure to the sexually explicit video material. After each video clip, before the card game was played, participants were asked to rate

their subjective sexual arousal on a Likert-type scale as part of a brief mood assessment, adapted from Mayer and Gaschke (1988)'s Brief Mood Introspection Scale (see Appendix 2). This was done to assess participants' levels of sexual arousal at each stage of the experiment. After each block of activity, participants were instructed to click a button on the computer to begin the next block or to notify the experimenter if they wished to leave the experiment; this was done to allow participants the opportunity to easily discontinue the experiment if they felt uncomfortable.

Upon completion of all four blocks of activity, participants were then asked to fill out a brief survey. In addition to demographic information (age, sexual orientation, program of study, use of hormonal birth control, etc), the survey also contained a manipulation check (see Appendix 3). Participants were asked to rate how sexually arousing they found each video clip, and were asked to rank the clips in order of most to least sexually arousing. Participants were also asked to rate and rank the clips based on how entertaining, funny, and boring they found the clips to be; as well as their preferences, in general, among the clips. This was done to help ensure that participants in the experimental condition were indeed sexually aroused by the sexually explicit videos clips, and that the control video clips did not sexually arouse participants in the control condition.

Following the completion of this final survey, participants played an online game: *Adventures in Sex City* (Middlesex-London Health Unit, 2007). The purpose of this game was to not only enhance participant's knowledge of safer-sex practises by playing this trivia game, but also to allow for a "cooling" period before debriefing began, which may have been especially important for participants in the sexual arousal condition. The participants were then thoroughly debriefed by the experimenter (see Appendix 4) with

information about the experiment and the nature and purpose of the deception used.

Following the debriefing, participants were invited to re-consent to the Experiment and had the opportunity to withdraw their data without penalty (see Appendix 5). Testing sessions lasted between 40 and 60 minutes: the length of time varied depending on how much time participants spent playing the games and answering the questionnaire.

Results:

The data were analyzed using a Factorial Analysis of Variance (ANOVA) to compare the mean scores of males and females in the experimental and control groups; that is, the average percentage of risky plays (choosing to “hit” rather than “stay”) participants in these groups made on ambiguous hands during the game of Blackjack. Tests of normality revealed that the measure of the average percentage of risky plays on ambiguous hands for the experimental condition were not significantly non-normal: $D(51) = 0.11, p > .05$, although this measure was significantly non-normal for the control group: $D(51) = 0.15, p < .05$, the skewness and kurtosis were within the acceptable ranges for this measure for each group (Field, 2009). The variances were also equal for both the experimental and control groups: $F(1,100) = 0.003, p > .05$.

The Factorial ANOVA revealed no main effect of gender; male participants were no more likely than female participants to make risky plays on ambiguous hands of Blackjack; $F(1, 97) = 0.27, p > .05$ (see figure 4). The Factorial ANOVA did reveal a significant main effect of condition such that participants in the experimental condition ($M = .63, SD = .17$) made risky plays on ambiguous hands of Blackjack significantly more frequently than participants in the control condition ($M = .56, SD = .18; F(1, 97) =$

5.74, $p < .05$). No interaction was found between condition and gender: $F(1, 97) = 0.80$, $p > .05$.

Discussion:

The results of Experiment 1 suggest that, contrary to research reviewed previously (Baker & Maner, 2006), sexual arousal may have an effect on both men and women, such that increased levels of sexual arousal may contribute to increased risk-taking behaviour. Further, the lack of significant difference between male and female performance suggests that their risk-taking behaviour may be similarly affected by sexual arousal.

Experiment 2

Methods:

Participants

One hundred and twenty University of Windsor undergraduate students participated in this study and were recruited using the University of Windsor Psychology Department research participant pool. The data from participants in the experimental condition who did not attain the cut-off level of self-reported sexual arousal (a rating above three on a scale of one to ten) were not included in the final analyses. Thus, 18 subjects were excluded from the analysis. Additionally, two participants elected to discontinue the experiment before it was complete because they were uncomfortable with the material. In total, the data from 100 participants were used: 80 females and 20 males. Participants ranged in age from 18 to 32 years. The mean age was 23 years.

Potential participants were pre-screened based on age to ensure that they were eighteen years of age or older, due to the potential for exposure to adult material.

Potential participants were also screened based on sexual orientation; only participants who identified as heterosexual or bisexual and who had previously engaged in penetrative vaginal sex were included in this sample. This was done because the nature of the sexually explicit materials used was more appealing to heterosexual individuals.

Participants took part in either Experiment 1 or Experiment 2, not both.

Materials

The video material used in Experiment 2 was the same as the video material used in Experiment 1.

Sexual risk-taking and decision-making was assessed using a questionnaire (see Appendix 6). A Likert-type scale was employed, and participants were asked to answer questions about their willingness to participate in different hypothetical sexual situations. The questionnaire was completed on the computer and contained items similar to those used by Ariely and Loewenstein (2005). However, many of the items from the original scale were modified to be applicable to both sexes and many new items were added, as the original scale did not contain enough appropriate items for the purposes of this experiment. The questionnaire was used to assess the participants' willingness to engage in unsafe sexual activities (*"How likely are you to use a condom, even if it means that your partner might change their mind about having sex while you went to get it?"*) in an effort to investigate the scope of the effect sexual arousal may have on sexual behaviour and sexual decision-making. A set of distracter questions, designed to help disguise the purpose of the experiment, were also presented, intermingled with the target items. The order of the questions was randomized using a computer algorithm (this was part of the

software in *MediaLab*, which was used for this experiment). Participants rated how likely they were to engage in the particular behaviour described in the items using a Likert-type scale ranging from one to ten – one being extremely unlikely and ten being extremely likely.

Procedure

During the recruitment process, potential participants were invited to participate in a research project about sex differences in preferences regarding video clips; although this was a deception, potential participants were informed that they may be exposed to sexual material (see Appendix 7). Participants in Experiment 2 were told that the presented questions were a distracter task, meant to fill time in between the video clips as well as to collect demographic information. A same-sex experimenter greeted participants to explain the consent form and experimental procedures. After agreeing to take part in the experiment, participants were randomly assigned to either the control group (where they would view the control video clips) or the experimental group (where they would view the sexually explicit video clips). This random assignment occurred in advance: each session was designated as either an experimental session or a control session. The time slot a participant signed up for determined whether they would experience the control or the experimental condition. During the consent process, it was stressed that participants were free to leave the experiment at any time without penalty if they became uncomfortable with the video clips, and would be personally debriefed. If this were to occur, participants would also be given the opportunity to withdraw their data from the study.

Participants engaged in four blocks of activity; each block consisted of watching two minutes of video, followed by a short section of the questionnaire described above,

which was also administered on the computer. As with Experiment 1, each session was broken up into these four blocks of activity (two minutes of video + four questionnaire items) in an effort to maintain a heightened state of sexual arousal in the experimental group through repeated exposure to the sexually explicit video material. After each video clip, before completing the questionnaire, participants were also asked to rate their subjective sexual arousal as part of a brief mood assessment, adapted from Mayer and Gaschke (1988)'s Brief Mood Introspection Scale (see Appendix 2). This was done to assess participants' levels of sexual arousal at each stage of the experiment. After each block of activity, participants were then asked to click a button on the computer to begin the next block of activity or to notify the experimenter if they wished to leave; this allowed participants the opportunity to easily discontinue the experiment if they felt uncomfortable.

After the completion of all four blocks of activity, participants were asked to fill out a brief survey. Besides demographic information (age, sexual orientation, program of study, use of hormonal birth control, etc), the survey also contained a manipulation check (see Appendix 3). Participants were asked to rate how sexually arousing they found each video clip, and were asked to rank the clips in order of most to least arousing.

Participants were also asked to rate and rank the clips based on how entertaining, funny, and boring they found the clips to be, as well as their general preferences among the clips. This was done to help ensure that participants in the "sexual arousal" condition were indeed aroused by the sexually explicit videos clips and that the control video clips did not sexually arouse participants in the control condition.

Following the completion of this final survey, participants played an online game: *Adventures in Sex City* (Middlesex-London Health Unit, 2007). The purpose of this

activity was to not only enhance participant's knowledge of safer-sex practises by playing this trivia game, but also to allow for a "cooling" period before debriefing began; this was thought to have been especially important for participants in the experimental (sexual arousal) condition. The participants were then thoroughly debriefed by the experimenter (see Appendix 4) with information about the experiment and the nature of and reasoning for the deception used. Following the debriefing, participants were invited to re-consent to the experiment and had the opportunity to withdraw their data without penalty if they were unwilling to consent (see Appendix 5). Each testing session lasted between 40 and 60 minutes, depending on how long participants spent answering the questionnaires and playing the cool-down game.

Results:

A principal components analysis was conducted to ensure that the sexual decision items used in the questionnaire were correlated, and to ensure that the distracter items did not also correlate strongly with these items. The principal components analysis revealed that all the questionnaire items related to sexual decision-making did indeed load well onto a single factor together. The eigenvalue (λ) of this first principal component ($\lambda_1 = 4.376$) was almost three times larger than the eigenvalue of the next largest component ($\lambda_2 = 1.698$). All of the items related to sexual decision-making showed strong positive loadings on this principal component (see Table 1). The average calculated item communality for these eight items was 0.648 and this factor accounted for 27% of the variance in the data. A Cronbach's Alpha value of .84 indicated that this scale had good reliability (Field, 2009). The scores of the items relating to sexual decision-making were

aggregated into a general measure of sexual decision-making/risk-taking behaviour for further analyses. This measure was assessed for normality and it was revealed that for the experimental condition the measure was not significantly non-normal: $D(40) = 0.11, p > .05$, although this measure was significantly non-normal for the control group: $D(60) = 0.17, p < .05$, the skewness and kurtosis were within the acceptable ranges for this measure for each group (Field, 2009). The variances were also equal for both the experimental and control groups: $F(1,98) = 0.09, p > .05$.

Effect of Sex

A Factorial ANOVA revealed a significant main effect of sex on participants' willingness to engage in unsafe hypothetical sexual behaviour, $F(1, 96) = 70.86, p < .01$; such that male participants ($M = 6.25, SD = .75$) were more willing to engage in unsafe hypothetical sexual behaviour than female participants ($M = 3.01, SD = 1.64$; see Figure 5).

Effect of Condition

The Factorial ANOVA revealed an effect of condition on participants' willingness to engage in unsafe hypothetical sexual behaviour that was approaching significance, $F(1, 96) = 3.28, p = .07$. There was no significant interaction between sex and condition, $F(1, 96) = 0.213, p > .05$.

Because the sample of males for this experiment was small (only 10 per condition) and a power analysis estimated that at least 30 males per condition would be advisable (Norman & Streiner, 2000), it was thought that this may have confounded the potential effects of condition and any interaction with sex - reflecting an insufficient sample size rather than a true non-difference in responding to the hypothetical sexual scenarios. A further t -test was completed, comparing only females in the experimental

and control groups. It was found that female participants displayed a significantly [$t(78) = 2.29, p < .05$] greater willingness to engage in unsafe sexual behaviour in the experimental group ($M = 3.6, SE = .28$) than in the control group ($M = 2.7, SE = .23$).

Discussion:

The results of Experiment 2 suggest that sexual arousal may indeed have an effect on women, such that they may be more willing to engage in potentially risky sexual behaviour (i.e., having unprotected sex with a new or casual partner whose STI/HIV status is unknown) when sexually aroused than otherwise. This lends credence to the concept of sexual myopia – as postulated by Ditto et al. (2006). It is unfortunate that we were unable to appropriately compare the male experimental and control groups at this time; the low number of male participants is the regrettable result of disproportional gender distributions in the psychology participant pool combined with the time constraints of the current study. Further research is planned to remedy this situation.

Overall Results of Demographic/Mood Information

Mood after viewing video clips

Using Hotelling's Trace, it was found that there was a significant effect of condition on the mood of participants, $V = .665, F(4,225) = 37.39, p < .05$. However, separate univariate ANOVAs on the outcome variables revealed non-significant condition effect on Happy Mood, $F(1,228) = 1.42, p > .05$ (experimental: $M = 5.26, SD = 1.75$; control: $M = 5.52, SD = 1.56$), Sad Mood, $F(1,228) = .121, p > .05$ (experimental: $M = 2.11, SD = 1.4$; control: $M = 2.05, SD = 1.17$), and Angry Mood, $F(1,228) = .99, p > .05$ (experimental: $M = 2.03, SD = 1.5$; control: $M = 2.16, SD = 1.23$). In fact, the only

variable that showed a significant effect of condition was Sexual Arousal, $F(1,228) = 121.15, p < .05$, such that participants in the experimental condition ($M = 4.61, SD = 1.97$) were significantly more sexually aroused by the sexually explicit videos they viewed than the control group was by the control video clips ($M = 2.20, SD = 1.28$). All cases were included in this analysis.

Further univariate ANOVA analyses revealed that participants' age did not impact sexual arousal for the experimental group: $F(21,91) = 1.06, p > .05$, neither did their relationship status: $F(4, 108) = 1.42, p > .05$, nor the use of hormonal birth control: $F(1,78) = 1.69, p > .05$. It was also found that the reported frequency of enjoyment of sexually explicit material did not significantly impact the level of sexual arousal for participants in the experimental condition: $F(4,108) = 1.45, p > .05$.

Condom use trends

The data revealed that 70% of participants had engaged in penetrative sex with a partner at some point during the two weeks preceding their participation, 50% reported having engaged in penetrative sex with a partner within the preceding seven days. Yet 53% of participants reported not having used a condom the last time they had penetrative sex. However, 57% did report that hormonal birth control - like the pill - had been used, and this may have had an impact on condom use trends, as the risk of pregnancy is often seen to be of more concern than protecting oneself from STI or HIV infection (Suvivuo et al., 2009). However, a univariate ANOVA revealed that female participants' use of the pill did not seem to significantly impact their condom use frequency $F(3,226) = .18, p > .05$. It was observed that 54% of participants reported using condoms "sometimes" or less frequently.

Another factor that may have impacted reported condom use is relationship status: 42% of participants reported being in a monogamous relationship while 45% reported being single or in a casual relationship. However, no significant effect of relationship status on condom use was found. Further demographic statistics may be found in Table 2.

General Discussion

The results of this study provide some important insight into the potential effects sexual arousal may have on risk-taking and decision-making among both men and women. Previous research has already established that sexual arousal may be a very important contextual element in situations where new or casual heterosexual partners will have to make decisions about whether or not to engage in unprotected sexual activity (Norris et al., 2004). Studies that have examined some of the potential effects of sexual arousal on risk-taking and decision-making in the past have failed to adequately examine these effects in women (Ariely & Loewenstein, 2005; Baker & Maner, 2008). This potential omission is particularly concerning because women play a major role in condom negotiation, due to their more vulnerable position in sexual scenarios (Norris et al., 2004). The current study aimed to remedy this oversight by utilizing both male and female subjects and by increasing the visceral aspects of the stimuli used. Based on the findings of Ditto et al. (2006), it was thought that increasing the visceral aspects of the stimuli – using sexually explicit video – would allow for a greater experience of sexual arousal among participants and thus help any potential effects become more apparent.

In Experiment 1, risk-taking was assessed in general, using a modified version of the card game Blackjack. Here a trend was seen where both men and women seemed to

display more risk taking after being exposed to sexually arousing stimuli (i.e. sexually explicit videos). The findings of Baker and Maner (2008), Ditto et al. (2006), and Metcalfe and Mischel (1999) help to provide a possible hypothesis for why this occurred. Firstly, viewing the sexually explicit videos did increase participants' level of sexual arousal; this was seen in the large average difference in self-reported sexual arousal between the experimental and control groups overall. In turn, this increased level of sexual arousal may have resulted in some degree of sexual myopia in participants: as both men and women seemed to display more impulsive behaviour as a group, that is, more risk-taking during the ambiguous hands of the modified game of Blackjack.

Additionally, it may be that, contrary to the postulations of Ditto et al. (2006) and Loewenstein (1997), increased sexual arousal may not exclusively impact risk-taking and decision-making within the same modality (i.e. relating to sexual situations). In Experiment 1, it was shown that participants in the experimental group displayed significantly more risk-taking in the modified game of Blackjack than the control group – despite Blackjack having nothing to do with attaining sexual gratification.

Baker and Maner's (2008) research used a similarly modified version of the game Blackjack as a measure of risk-taking and used photos of faces of attractive members of the opposite sex as the stimuli; their research resulted in similar findings as the current study – male participants displayed an increase in risk-taking. The authors explained their findings as being the result of increased *mating motivation* after exposure to the stimuli, which resulted in increased risk-taking among male participants only, due to the high degree of intrasexual competition for mates among males. However, the results of the current study bring this hypothesis into question, as there was no significant difference between the means of the males and females in either the control or the

experimental groups in Experiment 1. This suggests that, contrary to Baker and Maner's (2008) assertions, women and men may be similarly incited to take more risks after exposure to sexually arousing material. It may be that, similar to alcohol, sexual arousal increases impulsivity in general among both men and women.

Experiment 2 allowed for an examination of the effects of sexual arousal within the same modality – i.e., with regards to decision-making in hypothetical sexual situations. After viewing sexually explicit video clips, participants were asked to rate, on a Likert-type scale, how likely they would be to engage in a variety of behaviour in different sexual situations (e.g. convincing a reluctant partner to use a condom, responding to a broken condom, etc). The results of this experiment yielded some interesting findings about the effects of sexual arousal on decision-making among men and women.

In Experiment 2, male participants overall were found to be more willing to engage in risky hypothetical sexual behaviour than female participants. This observation could be a reflection of, as Norris et al. (2004) have asserted, women being in a more vulnerable position during sexual situations. The consequences of a failure to use proper protection (i.e., prophylactics) during sexual activity are more severe for women (Norris et al., 2004) – unprotected sex can lead to STI/HIV infection (transmission occurs more easily from male to female), as well unwanted pregnancy. Because men typically perceive themselves as being in a less vulnerable position, this may contribute to men appearing more willing in general to engage in risky hypothetical sexual behaviour than women. However, in such a situation – where men appear to be more cavalier with their protective health behaviour – who is really the more vulnerable population? The difference seen in sexual risk-taking in Experiment 2 is quite dramatic: even male

participants in the control condition reported being much more likely to engage in risky sexual behaviour than the women in the experimental condition. It may be that young men require more extensive and specifically tailored training in making safer sexual decisions than they currently receive in sexual education curriculums. Additionally, because male participants seem to be so much more willing to engage in risky sexual behaviour, this may make condom negotiation in real-world situations even more difficult for women, as they may be forced to deal with an oppositional partner who doesn't seem to care about their own protection from STI or HIV infection – a problem which may be made even worse once either (or both) of the parties becomes sexually aroused.

The results of Experiment 2 also seem to support the notion that women may be vulnerable to the effects of sexual arousal when it comes to making decisions within the same modality – that is, decisions regarding sexual behaviour. It was found that women in the experimental group were significantly more likely to engage in risky hypothetical sexual behaviour than women in the control group. Presumably this is due to the myopic effects of sexual arousal – more attentional focus may have been placed on the goal of sexual gratification than on maintaining safer-sex practises (Ditto et al., 2006). These results suggest that women may be more likely to take risks in sexual situations once they are sexually aroused (though perhaps not as strongly as men). This could potentially lead to situations where a sexually aroused woman may be less likely to initiate condom negotiation or to respond appropriately when faced with an oppositional partner. As postulated earlier in this paper, based on the findings of Maticka-Tyndale and Herold (1997), the findings of Experiment 2 suggest that women and men may, in fact, be more similar in their sexual decision-making when sexually aroused than previously thought. Perhaps the current paradigm of placing women in the role of “gate-keepers” when it

comes to sexual behaviour is doing women a disservice. The results of Experiment 2 illustrate that women can also become more permissive when under the influence of sexual arousal; perhaps it is not fair to expect more of women than we do of their male partners. Sexual education programs may need to place more emphasis on how *both* men and women can have difficulty making safer sexual decisions “in the heat of the moment” and focus on the importance of both parties spending more time considering their own personal health and safety in sexual situations.

These findings are complemented by a recent study by Norris et al. (2009) where a connection was found between women’s intention to use condoms and their level of sexual arousal at different stages of a sexual encounter (earlier versus later in the encounter). The authors suggest that the effects of sexual arousal may vary over the course of a sexual encounter, such that women who become sexually aroused quickly may be less likely to insist that a condom be used later in the encounter. This suggests that both men and women need to begin condom negotiation early on in a sexual encounter, because waiting until they are in the midst of the sexual activity will mostly likely make it more difficult to initiate condom negotiation. A closer examination of the different effects sexual arousal may have at different stages in a sexual encounter may help to gain a better understanding of this phenomenon, as sexual decision making and condom negotiation are indeed multi-stage processes.

Sexual arousal’s effect of increasing impulsivity, or risk-taking behaviour, among both males and females could help explain the apparent disconnect between attitudes about safer-sex practices and actual safer-sex behaviour among young adults. These findings provide support for the notion that sexual arousal may produce a myopic effect (similar to alcohol; see Zawacki et al., 2009) where a sexually aroused person appears to

become less cautious in risk-taking and sexual decision-making. In a real life scenario, the visceral impact of engaging in flirting and/or pre-intercourse sexual play with a partner would be much stronger than viewing sexually explicit videos in a psychology research lab – thus the effects of sexual arousal in a more natural setting should be amplified. This could result in an even greater willingness to partake in sexual activity with a casual or new partner without using appropriate prophylactic protection, thus increasing both parties' risk of contracting an STI or HIV. In fact, in line with the findings of Rotermann and McKay (2009), reported condom use among the participants of the current study was indeed low – less than 40% of participants reported having used a condom the last time they had engaged in sexual intercourse.

As with any research project, there are a number of limitations associated with the current study. For instance, as discussed above, the sample size in both Experiment 1 and Experiment 2, especially for males, was relatively small, which may have resulted in insufficient power to detect any potential effects in male participants. Also, a potential limitation in Experiment 1 is that, although there is an inherent sense of risk-taking in the game of Blackjack (since it involves a certain amount of chance), this sense of risk-taking may not have been visceral enough for some participants. Although participants could “win” or “lose” a hand, there were no stakes, and some participants may not have been challenged enough by the goal to simply “beat the computer”. Since the only reward for winning a hand would have been intrinsic, this may have affected how participants assessed whether or not they would “hit” on ambiguous hands of the modified Blackjack game and may have obscured the results.

As discussed previously in this paper, one reason why heterosexual couples may choose not to use condoms is because they are (in this author's opinion) mistakenly more

concerned with preventing pregnancy than with protecting themselves from STIs and HIV infection (Suvivuo et al., 2009). Because accidental pregnancy can often be avoided using non-barrier prophylactic methods, this is problematic for the prevention of infection. Of the eight sexual scenarios used in Experiment 2, only one made it explicitly clear that the female partner was taking birth control pills. It is unclear whether this particular detail affected how participants responded to this item, as it did load appropriately onto the main factor in the principal components analysis. Future research examining differences in risk-taking behaviour in sexual situations when there is or is not a risk of pregnancy involved may help gain a better understanding of this possible barrier to safer-sex practises.

Another potential limitation of Experiment 2 concerns the items presenting the hypothetical sexual scenarios. The majority of the hypothetical scenarios depicted situations where the subject was at least casually acquainted with their hypothetical partner (e.g., the partner was presented as being a classmate, a friend of a friend, someone they have been on a date with, etc.). It has been shown that university students frequently use invalid forms of judgement when trying to decide whether a potential partner is “safe” to have sex with; that is, whether this person may be infected with HIV or an STI. For instance, Williams et al. (1992) found that participants tended to judge the need for safer sexual practices to be less necessary the more one knew and/or trusted a partner, regardless of the lack of information about their sexual history and STI/HIV status. This phenomenon may have skewed participant responding in the current study such that participants may have been slightly more willing to engage in risky sexual behaviour with a partner depicted as being somewhat familiar. Although participants in both the control and experimental condition viewed the same items, further research is needed to gain a

better understanding of the potential differences in the effects of sexual arousal on sexual decision-making, taking into account partner familiarity.

Implications

Although sexual arousal has no effect on our knowledge of safer sex practices (i.e. that condoms are necessary to prevent pregnancy as well as STIs/HIV infections; Ariely & Loewenstein, 2005), it may have an effect on our ability to assess risky situations and may change our perception of the advantages and disadvantages of practising safer sex. Additionally, sexual arousal may have an impact on the successful initiation as well as the outcome and repercussions of condom negotiation. A failure to understand and appreciate such an effect of sexual arousal on our cognition and subsequent behaviour could translate into a failure to avoid or to be prepared for such situations (i.e., by having condoms available and ensuring the initiation of condom negotiation).

The findings from this study have implications for how safer sex practises are taught in schools in North America, and may eventually translate into better preparedness in youth when approaching sexual situations. Educating individuals on how easily their decision-making abilities could be affected in sexual situations will help make them more aware of the issue. Following increased awareness, those individuals may be able to overcome the effects of sexual arousal, or at least be more prepared in advance (for example, by attempting to have prophylactics easily accessible at all times). It is hoped that this particular study will lead to further fruitful related lines of inquiry and ultimately help lead to decreasing the number of cases of unplanned pregnancies (in cases where other effective methods of birth control were not used), sexually transmitted infections, and HIV infections among university student and similarly aged populations.

References

- 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.
- Baker, M. D., & Maner, J. K. (2008). Risk-taking as a situationally sensitive male mating strategy. *Evolution and Human Behavior, 29*, 391-395.
- Baumeister, R. F., Cantanese, K. R., & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review, 5*, 242-273.
- 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.
- Blumenfield, J. (director) & Marsh, A. (director). (2003). Reunion (television series episode). In A. Grodner (producer) *Family business*. United States: Maxwell productions (II).
- Bobin, J. (writer, director), Clement, J. (writer), & McKenzie, B. (writer). (2007). Sally (television series episode). In S. Smiley (producer) & T. Miller (producer) *Flight of the conchords*. United States: Dakota Pictures.
- Bobin, J. (writer), Clement, J. (writer), McKenzie, B. (writer), & Miller, T (director). (2007). Yoko (television series episode). In S. Smiley (producer) & T. Miller (producer) *Flight of the conchords*. United States: Dakota Pictures.
- Boldero, J., Moore, S., & Rosenthal, D. (1992). Intention, context, and safe sex: Australian adolescents' responses to AIDS. *Journal of Applied Social Psychology,*

22, 1374-1396.

- Chivers, M. L., Seto, M. C., & Blanchard, R. (2007). Gender and sexual orientation differences in sexual response to sexual activities versus gender of actors in sexual films. *Journal of Personality and Social Psychology, 93*, 1108-1121.
- Christopher, F. S., & Cate, R. M. (1985). Anticipated influences on sexual decision-making for first intercourse. *Family Relations, 34*, 265-270.
- Cohen, J. (1990). Things I have learned (so far). *American Psychologist, 45*, 1304-1312.
- 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.
- Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.) London, England: SAGE Publications.
- Freimuth, V. S., Hammond, S. L., Edgar, T., McDonald, D. A., & Fink, E. L. (1992). Factors explaining intent, discussion, and use of condoms in first-time sexual encounters. *Health Education Research, 7*, 203-215.
- Gold, R. S., Karmiloff-Smith, A., Skinner, M. J., & Morton, J. (1992). Situational factors and thought processes associated with unprotected intercourse in heterosexual students. *AIDS Care, 4*, 305-323.
- Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes, 65*, 272-292.
- MacDonald, T. K., Hynie, M. (2008). Ambivalence and unprotected sex: Failure to predict sexual activity and decreased condom use. *Journal of Applied Social Psychology, 38*, 1092-1107.

- Maticka-Tyndale, E. & Herold, E. S. (1997). The scripting of sexual behaviour: Canadian university students on spring break in Florida. *Canadian Journal of Human Sexuality, 6*, 317-328.
- Mayer, J. D. & Gaschke, Y. N. (1988). The experience and meta-experience of mood. *Journal of Personality and Social Psychology, 55*, 102-111.
- Metcalf, J. & Mischel, W. (1999). A hot/cool-system analysis of delay of gratification: Dynamics of willpower. *Psychological Review, 106*, 3-19.
- Middlesex-London Health Unit (2007). *Adventures in Sex City*. Retrieved from: <http://www.healthunit.com/article.aspx?ID=15160>
- Mills, J. (1976). A procedure for explaining experiments using deception. *Personality and Social Psychology Bulletin, 2*, 3-13.
- Morris, J. (producer) & Stanton, A. (director). (2008). *WALL-E* (motion picture). United States: Walt Disney Pictures.
- Norman, G. R. & Streiner, D. L. (2000). *Biostatistics: The bare essentials*. Hamilton: B. C. Decker Inc.
- 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.
- Norris, J., Stoner, S. A., Hessler, D. M., Zawacki, T., Davis, K. C., George, W. H., Morrison, D. M., Parkhill, M. R., & Abdallah, D. A. (2009). Influences of sexual sensation seeking, alcohol consumptions, and sexual arousal on women's behavioral intentions related to having unprotected sex. *Psychology of Addictive Behaviors, 23*, 14-22.

- O'Leary, A. (2000). Women at risk for HIV from a primary partner: Balancing risk and intimacy. *Annual review of Sex Research, 11*, 254-263.
- Peterman, A. F. (2008). Physician initiated STI prevention counselling: Targeting women to reach couples (Doctoral dissertation: The University of Western Ontario, 2008). *Library and Archives Canada, Published Heritage Branch.*
- Public Health Agency of Canada. (2009). *Reported cases of notifiable STII from January 1 to June 30, 2008 and January 1 to June 30, 2009 and corresponding annual rates for the years 2008 and 2009.* Retrieved from: www.phac-aspc.gc.ca/sti-its-surv-epi/surveillance-eng.php.
- Rotermann, M & McKay, A. (2009). Condom use at last sexual intercourse among unmarried, not living common-law 20- to 34-year-old Canadian young adults. *The Canadian Journal of Human Sexuality, 13*, 75-87.
- Royalle, C. (producer, director). (2007). *Under the covers* (Motion Picture). United States: Adam & Eve Productions.
- Senn, C. Y. & Radtke, H. L. (1990). Women's evaluations of and affective reactions to mainstream violent pornography, nonviolent pornography, and erotica. *Violence and Victims, 5*, 143- 155.
- Suschinsky, K. D., Lalumière, M. L., & Chivers, M. L. (2009). Sex differences in patterns of genital sexual arousal: Measurement artefacts or true phenomena? *Archives of Sexual Behaviour, 38*, 559-573.
- Suvivuo, P., Tossavainen, K., & Kontula, O. (2009). Contraceptive use and non-use among teenage girls in a sexually motivated situation. *Sex Education, 9*, 355-369.

- Waller, D. (writer), Weiner, M. (writer), & Hornbacher, S. (director). (2009). Wee small hours (television series episode). In M. Weiner (producer) & S. Hornbacher (producer), *Mad men*. Los Angeles, CA: American Movie Classics (AMC).
- Wilkinson, A. V., Holahan, C. J., & Drane-Edmundson, E. W. (2002). Predicting safer sex practices: The interactive role of partner cooperation and cognitive factors. *Psychology and Health, 17*, 697-709.
- Williams, S. S., Kimble, D. L., Covell, N. H., Weiss, L. H., Newton, K. J., Fisher, J. D., & Fisher, W. A. (1992). College students use implicit personality theory instead of safer sex. *Journal of Applied Social Psychology, 22*, 921-933
- Zawacki, T., Norris, J., Hessler, D. M., Morrison, D. M., Stoner, S. A., George, W. H., Cue Davis, K., & Abdallah, D. A. (2009). Effects of relationship motivation, partner familiarity, and alcohol on women's risky sexual decision making. *Personality and Social Psychology Bulletin, 35*, 723-736.

Tables

Table 1

Rescaled Component Matrix of Experiment 2 Questionnaire Items

Item	Component Value
FriendSexRisk	0.87
CondomRejectInverse	0.82
DateSexRisk	0.78
CondomBreakRisk	0.76
SexHistoryInverse	0.63
ClassmateInverse	0.50
DanceCondomRisk	0.50
STDTrustRisk	0.50
Laptop	0.07
ShirtBorrow	0.16
Wallet	0.40
Fish	0.02
Apologize	0.37
WalkHome	0.42
Exam	0.28
Truth	-0.09

Table 2

Summary of Demographic Information

	Female	Male
	Participants	Participants
Did Not Use a Condom at Last Sexual Encounter	57%	44%
Reported using Condoms "Sometimes" or Less Frequently	57%	47%
Reported Currently Taking Hormonal Birth Control	56%	na
Reported Believing Sex Partner Used Hormonal Birth Control	na	59%
Penetrative Sex with Five or Fewer Partners	71%	59%
Penetrative Sex with Two or Fewer Partners	38%	34%

Figures

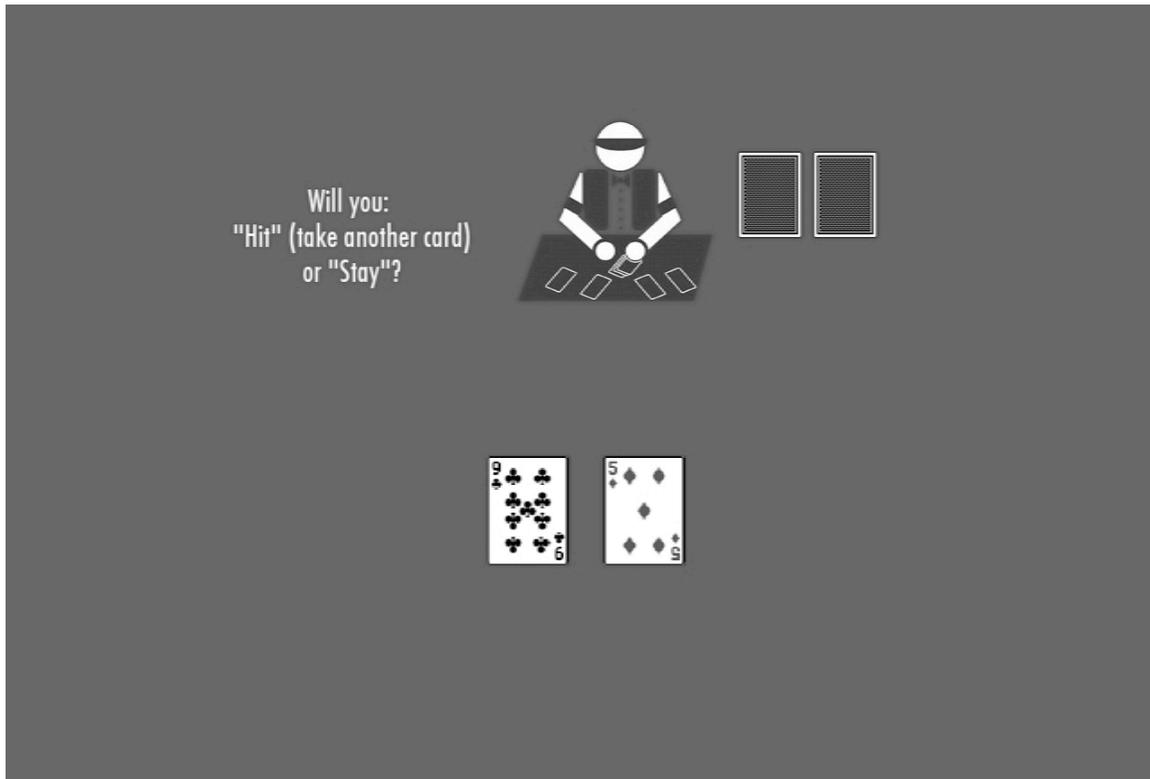


Figure 1. An Ambiguous Hand of Modified Blackjack from Experiment 1. This figure is an example of a screen participants viewed in Experiment 1. In the actual Experiment, buttons offering participants the option to “hit” or “stay” appeared at the bottom of the display.

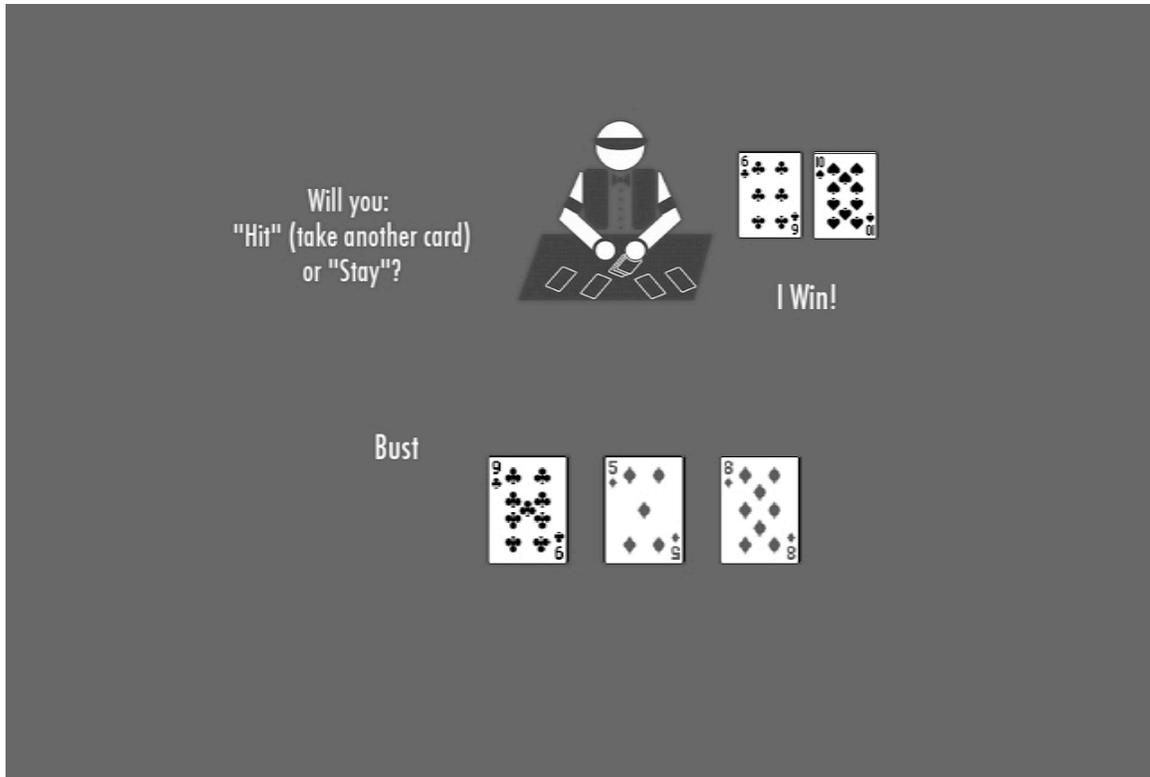


Figure 2. The Result of Selecting “hit” on an Ambiguous Hand of Modified Blackjack. This figure illustrates the result of a participant choosing to “hit” on this particular hand of modified Blackjack; it was predetermined that participants would lose on this hand.



Figure 3. The Result of Selecting “Stay” on an Ambiguous Hand of Modified Blackjack. This figure illustrates the result of a participant choosing to “stay” on this particular hand of modified Blackjack; it was predetermined that participants would lose on this hand.

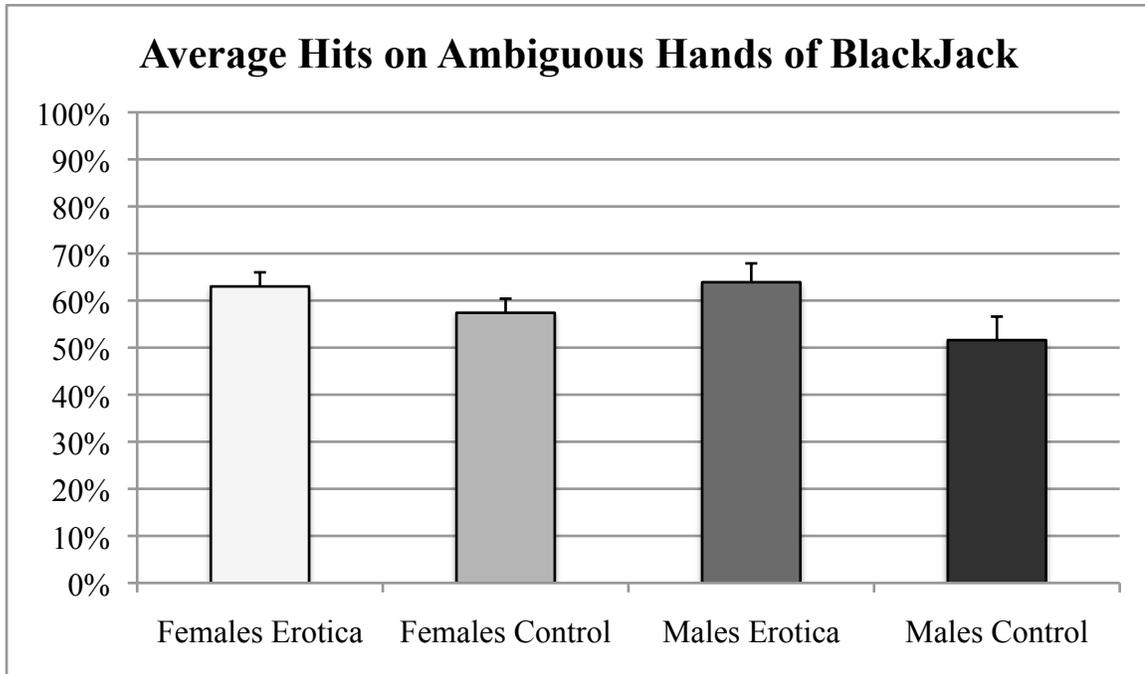


Figure 4. Average Hits on Ambiguous Hands of Blackjack. This figure depicts the mean percentage of hits each group of participants made on the ambiguous hands of modified Blackjack that they played. There was a significant difference overall between the experimental and control groups, but no significant effect of gender.

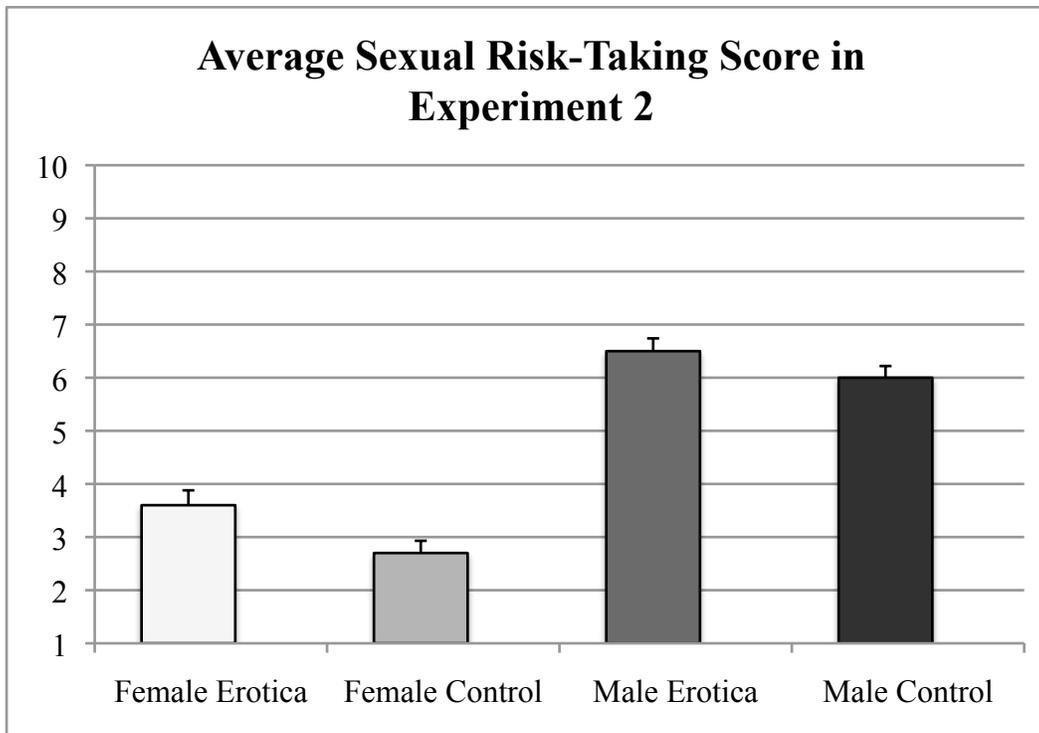


Figure 5. Average Sexual Risk-Taking Score in Experiment 2. This figure depicts participants' mean level of willingness to engage in risky sexual behaviour in Experiment 2. Males were significantly more willing to engage in risky behaviour in hypothetical sexual situations, as were females in the experimental group.

Appendices

Appendix 1



CONSENT TO PARTICIPATE IN RESEARCH – EXPERIMENT 1

Consent form 1 – Deceptive Consent

Title of Study: Gender differences in film clip preference: An exploration of audience-actor perception.

You are asked to participate in a research study conducted by Shayna Sparling a graduate student, supervised by Dr. Ken Cramer, a faculty member from the Department of Psychology at the University of Windsor. The results of this study will be used as part of a master's thesis.

If you have any questions or concerns about the research, please feel to contact Shayna Sparling at skakoon@uwindsor.ca or Dr. Cramer at kcramer@uwindsor.ca.

PURPOSE OF THE STUDY

This study is designed to investigate gender differences in preferences of video clips where different gendered persons are taking the lead in various activities.

PROCEDURES

If you agree to participate in this study, we would ask you to do the following things:

You will be asked to view four (4) different video clips on a computer. Each clip is approximately two (2) minutes in length. After each clip you will fill out a brief questionnaire on the computer about your mood.

Between each clip a distracter task will also be presented. This task will involve playing ten (10) rounds of a card game of chance against the computer. This game is very similar to the game of Blackjack. Your goal is to beat the computer as many times as possible over ten rounds by achieving a score as close to twenty-one (21) as possible without going over. You will be dealt a hand of cards and will then choose whether you will “stay” (not draw another card) or “hit” (draw another card). You will not actually have the opportunity to win any money, but see how well you can do in comparison to others’ scores in the game: try to get as high a score as possible!

After all four (4) video clips have been presented, you will also be asked about your preferences among the video clips as well as filling out a demographic questionnaire and playing a brief trivia game online.

This study is expected to take approximately forty-five (45) minutes to complete.

POTENTIAL RISKS AND DISCOMFORTS

During the course of this study you may be exposed to film clips showing or discussing sexually explicit material. These images may be upsetting or objectionable to some people. If at any time you feel uncomfortable with a sexually explicit film clip you may stop the clip and discontinue your participation at any time without penalty. If you feel that you may be uncomfortable participating in this study, please feel free to discontinue your participation now. No other risks or discomforts are associated with participation in this study.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Your participation in this study will add to the body of research regarding the “type-casting” of members of different genders in leadership-type roles films. It may also offer you some insight into your own biases and some of the underlying reasons for these biases. Another benefit of participation in this study is the educational experience

garnered on the process of research as well the opportunity to learn more about research in this area in general.

PAYMENT FOR PARTICIPATION

Participants will receive 1 bonus point for 60 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.

After signing this consent form you will be assigned a participant code, all of your data associated with this study will be identified by this participant code. Your participant code will not be associated with your name or be identifiable in any way. This consent form will be stored in a locked drawer in a locked office, separate from any data collected over the course of this study for a period no less than seven (7) years, after-which it will be destroyed.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you choose to participate in this study, you may withdraw at any time without negative consequence. You may also refuse to answer any questions you don't want to answer and still remain in the study.

The investigator may withdraw you from this research if circumstances arise which warrant doing so.

SUBSEQUENT USE OF DATA

This data may be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you chose to discontinue your participation, the researcher will personally debrief you before you depart. If you have questions regarding your rights as a research

subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario
N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study *Gender differences in film clip preference: An exploration of audience-actor perception* as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Subject

—

Signature of Subject

Date

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

—

Signature of Investigator

Date

Appendix 2

Mood Scale -adapted from Mayer and Gaschke (1988) 's Brief Mood Introspection Scale

(to be administered via computer display) – For Experiment 1 and Experiment 2.

On the following scale please click a point on the line below to indicate how happy you currently feel (1 being least happy and 10 being most happy)

1-----10

On the following scale please click a point on the line below to indicate how sad you currently feel (1 being least sad and 10 being most sad)

1-----10

On the following scale please click a point on the line below to indicate how angry you currently feel (1 being least angry and 10 being most angry)

1-----10

On the following scale please click a point on the line below to indicate how sexually aroused you currently feel (1 being least sexually aroused and 10 being most sexually aroused)

1-----10

Appendix 3

*Survey of demographic information and manipulation check – for Experiment 1 and
Experiment 2.*

Please answer the following questions to the best of your ability

1. On a scale of 1 to 10, please rate how entertaining you found each video clip to be:

a. [Title of clip1]_____

b. [Title of clip2]_____

c. [Title of clip3]_____

d. [Title of clip4]_____

2. On a scale of 1 to 10, please rate how sexually arousing you found each video clip
to be:

a. [Title of clip1]_____

b. [Title of clip2]_____

c. [Title of clip3]_____

d. [Title of clip4]_____

3. On a scale of 1 to 10, please rate how funny you found each video clip to be:

a. [Title of clip1]_____

b. [Title of clip2]_____

c. [Title of clip3]_____

d. [Title of clip4]_____

4. On a scale of 1 to 10, please rate how boring you found each video clip to be:

a. [Title of clip1]_____

b. [Title of clip2]_____

c. [Title of clip3]_____

d. [*Title of clip4*]_____

5. Below, please rank the video clips from most to least entertaining:

Most: _____ Medium: _____ Low: _____ Least: _____

6. Below, please rank the video clips from most to least sexually arousing:

Most: _____ Medium: _____ Low: _____ Least: _____

7. Below, please rank the video clips from most to least funny:

Most: _____ Medium: _____ Low: _____ Least: _____

8. Below, please rank the video clips from most to least boring:

Most: _____ Medium: _____ Low: _____ Least: _____

9. Below, please rank the video clips from most to least preferred in general:

Most: _____ Medium: _____ Low: _____ Least: _____

Please indicate:

1. Your age: [*open ended*]

2. Your gender: [*open ended*]

3. Your program of study: [*open ended*]

4. Your year of study: 1st / 2nd / 3rd / 4th / 5th and up

5. Your relationship status: single / in a casual relationship / in a monogamous relationship / common-law / married

6. What ethnic or cultural group do you identify with, if any? [*open ended*]

7. If you are female, are you currently using a hormonal form of birth control (like the pill)? Y / N

8. Please indicate your sexual preference: Males / Females / Both / Neither

9. How long ago was your last sexual encounter (penetrative sex with another

person)? Within the last 7 days / within the last 14 days / within the last 30 days /
within the last 3 months / within the last 6 months / within the last 12 months /
over a year ago / over two years ago / over five years ago / other / never

10. During your last sexual encounter (penetrative sex with another person) was a
barrier contraceptive – like a condom – used? Y / N

11. How frequently do you use a barrier contraceptive – like a condom – during
sexual encounters (penetrative sex with another person)? Never / Rarely /
Sometimes / Frequently / Every Time

12. How frequently do you enjoy erotic or pornographic images/films? Never / Rarely
/ Sometimes / Frequently / Every Day

13. Approximately how many sexual partners have you had since you became
sexually active?*[open ended]*

Appendix 4

Debriefing for Experiment 1 and Experiment 2 – adapted from Mills (1976)

There is more to this study than I have told you about so far. First of all, I want you to know that the deception part of the study IS over. But before I tell you exactly what this study was really about, I would like to explain why it is necessary in some kinds of psychological studies not to tell people all about the purpose of the study at the very beginning, this is because it might affect the results so they would not be a good indication of how people react in everyday situations, which is really what we are trying to find out in psychology experiments. In some kinds of studies, if we tell people what the purpose of the experiment is and what we predict about how they will react under particular conditions, they might deliberately do whatever they think that we want them to do, just to help us out and give us the results that they think we want. If that happened, their reactions would not be a good indication of how they might react in a situation in everyday life. It is also possible that the opposite might occur and that people might think that if we predicted that they would do a certain thing, they might deliberately not do that to show us that we can't figure them out. That would also make the results invalid, because again what the people would be responding to is what they thought we were looking for, rather than responding naturally and spontaneously as they would in everyday situations. This is not a problem in all studies, for example, in a study of learning, if you wanted to have people learn something and then test them, you might want them to know exactly what they were going to be asked to recall so that they would their best and learn as well as they could. Can you see why in some kinds of studies we can't tell people all about the purpose of the study at the beginning? [*Pause and talk about this if they have any questions or comments*]

Now I would like to explain exactly what we are trying to get at in this study.

You were asked to participate in a study of the effects of sexual arousal on risk-taking and decision-making. This is why we asked you how sexually aroused you felt after viewing the video clips. Some participants in this study were in the “experimental condition”; if you were in this group you would have been shown erotic video clips. Some participants, instead, were in the “control condition”, if you were in this condition you would have need non-erotic video clips, you may even have recognized some of these clips from movies or television shows you have seen before.

[For Participants in Experiment 1 ONLY] Remember I told you that the purpose of the card game was to fill time in between watching the video clips? What I was really measuring was how you played this game. I hypothesized that people who had watched the erotic videos would feel more sexually aroused and that they would then make more risky plays against the computer: by “hitting” rather than “staying” when it was not clear what the best choice might be. If you viewed the erotic videos but didn’t feel sexually aroused, don’t worry about it – there could be many reasons why this happened, for instance: you were participating in an experiment and not in the comfort of your own home which may have made you feel more uncomfortable than aroused with the erotic video clips.

[For Participants in Experiment 2 ONLY] Remember I told you that they questions you answered in between the video clips were part of our collecting demographic information? What I was really measuring was how you answered these

questions. I hypothesized that people who had watched the erotic video clips would answer these questions differently than people who saw the control videos. Specifically, I hypothesized that people who saw the erotic videos would make riskier decisions in sexual situations. If you viewed the erotic videos but didn't feel sexually aroused, don't worry about it – there could be many reasons why this happened, for instance: you were participating in an experiment and not in the comfort of your own home which may have made you feel more uncomfortable than aroused with the erotic video clips.

So can you see why we conducted the experiment the way we did? Why we told you this was a study of gender preferences among video clips rather than a study about the effects of sexual arousal on cognition and behaviour? Do you understand why we had to do that? Do you have any questions? [*Pause and talk about this if they have any concerns or questions*]

As in most psychological research, we are not interested in the responses of any one individual. In order for us to draw any conclusions, we will have to combine the data that we got from you together with data from other people so that we will have enough data to draw conclusions. What this means is that it is going to be necessary for us to ask you not to say anything about the study to anyone else. If you talked to someone else about the study and told them all the things that I just told you and then they were in the study, that would be just the same as if I told them at the beginning all about the whole purpose of the study; their reactions wouldn't be spontaneous and natural, and their results couldn't be used and combined with the data from you and other people. If that happened, we wouldn't have enough valid data to draw any conclusions about the average person, so

the whole study would really be wasted; the data that we got from you and other people in the past would be useless because we wouldn't have enough valid data. So I hope you can see why it is extremely important that I have to ask you not to say anything about the study. I realize that when people are in an experiment like this there is a tendency to want to talk about it to other people. Whenever you have an unusual experience, you want to share it with other people, but I'd like you resist that temptation. You might think, "What difference does it make if I talk to my best friend or my roommate, because maybe they are never going to be in the study". But they might say something to someone else who will be. So, I would like to ask you not to say anything about the study except that you have been asked not to talk about it until at least the end of the winter semester, when the study will be over. I would like you to please promise not to tell others about the study until after the study is over.

I am also telling you all these details because we want people to get some educational value out of being in the experiment, and if we didn't tell you what it was really about, you wouldn't learn as much about what experiments are like. It is quite different reading about an experiment and actually being in one. I hope you have learned something and that this gives you a better idea about experiments and how they are conducted.

Your participation in research is very important. In a study like this where we didn't give you all the information about the study upfront, we want to make sure that you are satisfied with your participation and that you wish to keep your data in the study. If you tell us now, that you do not want your data to be used, we will remove it from our

pool of data. Do you want to keep your data in the study, or have it removed? Do you have any questions about anything I have said so far? Comments? Suggestions?

Appendix 5

Consent form 2 – Re-consent after debriefing. Experiment 1 and Experiment 2

RE-CONSENT TO PARTICIPATE IN RESEARCH USING DECEPTION

During the debriefing session, I was given an explanation as to why it was necessary for the researchers to disguise the real purpose of the study. I was informed that having full information about the actual purpose of the study might have influenced the way in which I responded to the tasks and this would have invalidated the results. Thus, to ensure that this did not happen, some of the details about the purpose of the study initially were not provided (or were provided in a manner that slightly misrepresented the real purpose of the study).

However, I have now received a complete explanation as to the actual purpose of the study. In addition, I have had an opportunity to ask any questions about this and to receive acceptable answers to my questions.

I have been asked to give permission for the researchers to use my data (or information I provided) in their study, and agree to this request. I am aware that I may withdraw this consent by notifying the Principal Investigator of this decision.

I am aware that I may contact the Research Ethics Coordinator at the University of Windsor at 519-253-3000, ext. 3948, or email at ethics@uwindsor.ca

Name of Subject

Signature of Subject

Date



CONSENT TO PARTICIPATE IN RESEARCH – EXPERIMENT 2

Consent form 1 – Deceptive Consent

Title of Study: Gender differences in film clip preference: An exploration of audience-actor perception.

You are asked to participate in a research study conducted by Shayna Sparling a graduate student, supervised by Dr. Ken Cramer, a faculty member from the Department of Psychology at the University of Windsor. The results of this study will be used as part of a master's thesis.

If you have any questions or concerns about the research, please feel to contact Shayna Sparling at skakoon@uwindsor.ca or Dr. Cramer at kramer@uwindsor.ca.

PURPOSE OF THE STUDY

This study is designed to investigate gender differences in preferences of video clips where different gendered persons are taking the lead in various activities.

PROCEDURES

If you agree to participate in this study, we would ask you to do the following things:

You will be asked to view four (4) different video clips on a computer. Each clip is approximately two (2) minutes in length. After each clip you will fill out a brief questionnaire on the computer about your mood.

Between each clip a section of a survey will be presented, the purpose of this survey is to collect demographic information about you and to provide a break between the video clips. Please answer these questions honestly and to the best of your ability.

After all four (4) video clips have been presented, you will be asked about your preferences among the video clips as well as filling out the final portion of the demographic questionnaire and playing a brief trivia game online.

This study is expected to take approximately forty-five (45) minutes to complete.

POTENTIAL RISKS AND DISCOMFORTS

During the course of this study you may be exposed to film clips showing or discussing sexually explicit material. These images may be upsetting or objectionable to some people. If at any time you feel uncomfortable with a sexually explicit film clip you may stop the clip and discontinue your participation at any time without penalty. If you feel that you may be uncomfortable participating in this study, please feel free to discontinue your participation now.

No other risks or discomforts are associated with participation in this study.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Your participation in this study will add to the body of research regarding the “type-casting” of members of different genders in leadership-type roles films. It may also offer you some insight into your own biases and some of the underlying reasons for these biases. Another benefit of participation in this study is the educational experience garnered on the process of research as well the opportunity to learn more about research in this area in general.

PAYMENT FOR PARTICIPATION

Participants will receive 1 bonus point for 60 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.

After signing this consent form you will be assigned a participant code, all of your data associated with this study will be identified by this participant code. Your participant code will not be associated with your name or be identifiable in any way. This consent form will be stored in a locked drawer in a locked office, separate from any data collected over the course of this study for a period no less than seven (7) years, after which it will be destroyed.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you choose to participate in this study, you may withdraw at any time without negative consequence. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

SUBSEQUENT USE OF DATA

This data may be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you chose to discontinue your participation, the researcher will personally debrief you before you depart. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study *Gender differences in film clip preference: An exploration of audience-actor perception* as described herein. My

questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Subject

Signature of Subject

Date

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

Appendix 7

Questions to be included in the main portion of Experiment 2 (Adapted from Ariely and Lowentain, 2006):

Males

Questions regarding safe sex decision-making

1. While fooling around with a girl after a few dates, you both decide to “take it to the next level” and have sex. However, neither of you has a condom, and you know that the nearest pharmacy is closed. She tells you that it’s okay because she’s on the pill and she doesn’t sleep around. How likely are you to go ahead and have sex with your date without a condom?
2. During sex with a woman you have just met on a blind date, you feel the condom you are using break, but she doesn’t seem to notice. How likely are you to continue having sex without stopping to replace the broken condom?
3. An attractive woman at a dance club comes up to you and dances with you for a few songs. After a while she invites you to come home with her to have sex. Once there, you offer to use a condom but she refuses, saying that she prefers sex without a condom because it feels better. How likely are you to proceed without a condom?
4. A cute classmate comes over to work on a project, over the course of the night your flirting progresses to kissing which then progresses to groping and the removal of some clothing. You can tell that you two are going to end up having sex, but she hasn’t brought up the issue of using a condom – how likely are you bring to it up?
5. An attractive female friend of one your of your friends is visiting and you two seem to have a lot of sexual chemistry. You take her to your room where you begin to make out and fool around. She says she is very interested in having sex with you, but only if you have a condom – which you don’t. How likely are you to try to convince this woman to have sex with you without using a condom?
6. How likely are you to trust an attractive woman you’ve just met who says she’s STD free?
7. How likely are you to use a condom if you didn’t know the sexual history of a new sex partner?
8. How likely are you to use a condom, even if you were afraid that a woman might change her mind about having sex while you went to get it?

Distracter Questions

1. You are walking on campus on a break between classes. On the sidewalk in front of you, you see a wallet; you pick it up and find \$50 inside as well as the ID of man that you do not recognise. How likely are you to remove and keep the cash inside the wallet before turning it in to the campus police?

2. You are at a bar or house party near your home with friends and have drunk quite a lot of alcohol. You decide to leave, but your friends say they want to stay for another hour or two. How likely are you to walk home alone?
3. During an exam you happen to notice that you can clearly see the test paper of the student sitting closest to you. You recognise this student from class and recall that they seemed very knowledgeable. How likely are you to copy some of their answers?
4. How likely are you to always tell the truth, even when it might hurt someone's feelings?
5. How likely are you to apologise, even though you don't mean it, just to end a conflict?
6. If you were taking care of a friend's fish while they were away and the fish died, how likely would you be to replace the fish in the hopes your friend wouldn't notice a difference?
7. If you were getting ready to go on a date but all of your favourite shirts were dirty, how likely would you be to borrow your roommate's shirt without asking their permission?
8. How likely are you to trust a stranger to watch your laptop at a coffee shop while you went to use the toilet?

Females

Questions regarding safe sex decision-making

1. While fooling around with a man after a few dates, you both decide to "take it to the next level" and have sex. However, neither of you has a condom, and you know that the nearest pharmacy is closed. He tells you that it's okay because he doesn't sleep around and you're on the pill. How likely are you to go ahead and have sex with your date without a condom?
2. During sex with a man you have just met on a blind date, you feel the condom you are using break, but he doesn't seem to notice. How likely are you to continue having sex without stopping to replace the broken condom?
3. An attractive man at a dance club comes up to you and dances with you for a few songs. After a while you invites him to come home with you to have sex. Once there, you offer to use a condom but he refuses, saying that he prefers sex without a condom because it feels better. How likely are you to proceed without a condom?
4. A cute classmate comes over to work on a project, over the course of the night your flirting progresses to kissing which then progresses to groping and the removal of some clothing. You can tell that you two are going to end up having sex, but he hasn't brought up the issue of using a condom – how likely are you bring to it up?
5. An attractive male friend of one your of your friends is visiting and you two seem to have a lot of sexual chemistry. You take him to your room where you begin to make out and fool around. He says he is very interested in having sex with you,

but only if you have a condom – which you don't. How likely are you to try to convince this man to have sex with you without using a condom?

6. How likely are you to trust a nice-looking man you've just met who says he's STI/HIV free?
7. How likely are you to use a condom if you didn't know the sexual history of a new sex partner?
8. How likely are you to insist on using a condom even if you were afraid that a man might reject you because of it?

Distracter Questions

1. You are walking on campus on a break between classes. On the sidewalk in front of you, you see a wallet; you pick it up and find \$50 inside as well as the ID of woman that you do not recognise. How likely are you to remove and keep the cash inside the wallet before turning it in to the campus police?
2. You are at a bar or house party near your home with friends and have drunk quite a lot of alcohol. You decide to leave, but your friends say they want to stay for another hour or two. How likely are you to walk home alone?
3. During an exam you happen to notice that you can clearly see the test paper of the student sitting closest to you. You recognise this student from class and recall that they seemed very knowledgeable. How likely are you to copy some of their answers?
4. How likely are you to always tell the truth, even when it might hurt someone's feelings?
5. How likely are you to apologise, even though you don't mean it, just to end a conflict?
6. If you were taking care of a friend's fish while they were away and the fish died, how likely would you be to replace the fish in the hopes your friend wouldn't notice a difference?
7. If you were getting ready to go on a date but all of your favourite shirts were dirty, how likely would you be to borrow your roommate's shirt without asking their permission?
8. How likely are you to trust a stranger to watch your laptop at a coffee shop while you went to use the toilet?

Vita Auctoris

Shayna Skakoon-Sparling was born in Fort McMurray, Alberta. She graduated from St. Ignatius High School in the Cayman Islands in 1999. From there she went on to the University of Guelph where she completed a B.A. Hon. in Psychology in 2005. She is currently a candidate for the Master of Arts degree in Applied Social Psychology at the University of Windsor and hopes to graduate in Fall 2011.