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*University of Wisconsin-Milwaukee*

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SEXUAL AROUSAL'S EFFECT ON COLLEGE MEN'S ABILITY TO DETECT PROTEST  
IN A DATE RAPE ANALOGUE

by

Timothy J. Geier

A Thesis Submitted in  
Partial Fulfillment of the  
Requirements for the Degree of  
Masters of Science  
in Psychology

at

The University of Wisconsin-Milwaukee

May 2013

ABSTRACT  
SEXUAL AROUSAL'S EFFECT ON COLLEGE MEN'S ABILITY TO DETECT PROTEST  
IN A DATE RAPE ANALOGUE

by

Timothy J. Geier

The University of Wisconsin-Milwaukee, 2013  
Under the Supervision of Professor Shawn P. Cahill, Ph.D.

This study evaluated the impact of sexual arousal on college men's ability to identify when sexual advances should cease in response to protest depicted in a date-rape audio vignette. Participant arousal level was manipulated via exposure to one of three experimental videos: a neutral control video, a humor control video, or an erotic video clip. Participants provided subjective arousal levels. Participants then listened to an audio recording depicting conversation and mutual sexual activity escalating to rape. Response latency was obtained when participants indicated the male should refrain from making further sexual advances. Participant latency time did not significantly differ by condition. This potentially suggests that sexual arousal does not impact men's ability to detect partner protest in a date rape situation.

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## INTRODUCTION

According to the Centers for Disease Control, one in six women will experience an attempted or completed rape at some point in her life (Tjaden & Thoennes, 2000). An ever-expanding body of literature details the severe physical and mental effects this form of assault has on public health (Kuhn, Blanchard, & Hickling, 2003; Olatunji, Cisler, & Tolin, 2007; Schnurr, Green, & Kaltman, 2007). Compared to the general population, victims of sexual assault are three times more likely to have depression, four times more likely to contemplate suicide, six times more likely to develop posttraumatic stress disorder, and thirteen times more likely to abuse alcohol (Krug, Mercy, Dahlberg, & Zwi, 2002). Moreover, of the countries that gather and report such information, the U.S. holds the uppermost rape incidence – four times greater than Germany and thirteen times greater than the U.K. (Kilpatrick, Edmunds, & Seymour, 1992). In addition to the considerable pain inflicted upon victims, families, and communities, sexual violence breeds substantial financial repercussions. It is estimated that sexual violence, the most expensive crime for victims, costs the United States approximately \$127 billion annually (Miller, Cohen, & Wiersema, 1996). Given the substantial impact sexual victimization has on individual victims and society, accumulating information that advances understanding of sexual violence and helps us prevent victimization is paramount.

The prevalence figures are even more startling among female college students, the most common victims of sexual assault (Belknap & Erez, 2007; Brantingham & Brantingham, 1999; Schwartz & Pitts, 1995). Victimization rates among college women are three times higher than among women in both the general population as well as comparable age groups (Koss, Gidycz, & Wisniewski, 1987; DeKeseredy & Schwartz, 1998). In a national study on sexual assault among college students, Koss and colleagues (1987) reported that 54% of college women

encountered some form of sexual victimization and 15% of college women had encounters meeting the legal definition of rape. Further detailing this phenomenon, longitudinal studies suggest 18% to 27% of college women were sexually victimized during 3- to 4-month follow-up periods (Gidycz, Coble, Latham, & Layman, 1993; Greene & Navarro, 1998). Other investigations mirror these data, reporting analogous rates of sexual victimization among college women (Abbey, Ross, McDuffie, & McAuslan, 1996). Disturbingly, these data do not fully portray the actual prevalence of sexual violence, as it is a persistently underestimated crime with various factors (e.g., lack of awareness of what defines sexual violence, perceived level of anonymity in reporting) further impacting reported rates (Koss, Gidycz, & Wisniewski, 1987).

These considerable rates of victimization among college women subsequently reflect corresponding rates of perpetration among college men. Zawacki and colleagues (2003) have reported that 58% of college men stated that they had engaged in some form of sexual violence, ranging from forced sexual contact to completed rape, with 14% indicating completed rape. Another study found that of men who committed an act meeting the legal definition for rape, 84% stated that what they did was “definitely not rape” (Warshaw, 1994). Further, reports suggest that approximately 35% of college men would commit rape if they believed they could get away with it (Malamuth, 1981); paired with the aforementioned victimization and perpetration rates, it is clear that college campus environments have a greater concentration of sexually assaultive or potential offenders than the general population. As stated by Fisher, Sloan, Cullen, and Lu (1998), “The nature of college-student life, which involves the close daily interaction of females and males in a range of social situations, would lead us to predict that college women would have a heightened risk of sexual victimization.” With these conditions and



estimates in mind, institutions of higher learning are high-risk environments for sexual assault (Kilpatrick, Edmunds, & Seymour, 1992; Abbey, McAuslan, & Ross, 1998).

In light of these staggering rates and deleterious effects, Federal law currently requires all higher education institutions receiving funding to report information about crime on and near their respective campuses (Towns, 1990). Additionally, the National Association of Student Personnel Administrators requires the implementation of sexual assault programs on campuses receiving Federal funding (Heppner, Humphrey, Hillenbrand-Gunn, & DeBord, 1995). Unfortunately, research suggests institutions are inconsistent in the level of conformity regarding these regulations (Karjane, Fisher, & Cullen, 2002).

Despite a great degree of research on sexual assault, the field has had little success in identifying interventions that reliably decrease the incidence of this phenomenon. Although a considerable share of men exhibits some tendency toward using sexual violence (Malamuth, 1981; Lonsway & Fitzgerald, 1994), only a small percentage of programs are designed for men (8% in a review by Morrison, Hardison, Mathew, & O'Neil, 2004); instead, interventions are frequently directed toward women with little empirical evidence supporting their effectiveness (Gidycz, Colbe, Latham, & Layman, 1993; Gidycz, Layman, Rich, Crothers, Cylys, Matorin, & Jacobs, 2001; Gidycz, Rich, King, Orchowski, & Miller, 2006; Hanson & Gidycz, 1993). Limited success is inevitable without behavioral modification of potential perpetrators; a woman may do everything within her power to avoid sexual violence and nevertheless fall victim to sexual assault given particular situational circumstances outside her control (Schewe & O'Donohue, 1993).

Methods by which to foster long-term effects with a male-focused approach remain relatively obscure (O'Donohue, Yeater, & Fanetti, 2003; Gidycz, Rich, & Marioni, 2002;

Breitenbecher, 2001; Yeater & O'Donohue, 1999; Flores & Hartlaub, 1998; Foubert & McEwen, 1998; Heppner, Neville, Smith, Kivlighan, & Gershuny, 1999). Specifically, interventions targeting men have demonstrated mixed success in addressing rape supportive beliefs, rape-myth acceptance, rape empathy, and other outcomes (Morrison, Hardison, Mathew, & O'Neil, 2004). Of the existing male-focused programs, education, discussion, and presentation of victim accounts are typically utilized with little lasting behavioral effects (Gidycz, Rich, & Marioni, 2002; Breitenbecher, 2001; Yeater & O'Donohue, 1999; Flores & Hartlaub, 1998; Foubert & McEwen, 1998; Heppner, Neville, Smith, Kivlighan, & Gershuny, 1999). Findings suggest that male-focused programs are initially effective in generating temporary, favorable attitude modification, but longer-term investigations propose these initial outcomes weaken over time (Breitenbecher, 2001; Yeater & O'Donohue, 1999; Heppner, Neville, Smith, Kivlighan, & Gershuny, 1999; Flores & Hartlaub, 1998; Foubert & McEwen, 1998).

Krebs and colleagues have proposed that prevention programs should be tailored to include factors that men encounter in common college social situations (Krebs, Lindquist, Warner, Fisher, & Martin, 2007). It is necessary to better understand the situational variables that increase or decrease the chances of rape perpetration so efficacious interventions can be developed. One such potential factor is how men's sexual arousal affects their ability to cease sexual advances in light of partner protest. Studies have shown more than 20% of college men report at least one occurrence of becoming so sexually aroused that they *believed* they could not prevent themselves from having sex, despite female dissent (Peterson & Franzese, 1987; Koss & Oros, 1982). These studies suggest a strong motivational state, like sexual arousal, may influence perceptual processes by which men would otherwise know they should desist in sexual advances or to act on that knowledge. Further, research indicates that exerting self-control in the face of

powerful emotional stimulation like sexual arousal is likely enhanced by the ability to predict when emotions become aroused and how they affect behavior (Loewenstein, 1996; Baumeister, Heatherton, & Tice, 1994). Interventions administered under circumstances well-removed from the situation in which sexual assault occurs could leave men unprepared to utilize learned skills while sexually aroused (Barbaree & Marshall, 1991).

Numerous studies demonstrate the relationship between sexual arousal and sexual aggression. Although the majority of studies examined how arousal is affected by sexually aggressive stimuli (e.g. Malamuth, Check, & Briere, 1986; Bernat, Calahoun, & Adams, 1999; Hall, Shondrick, & Hirschman, 1993; Lohr, Adams, & Davis, 1997), a limited number assessed how sexual arousal affects sexually aggressive behavior (Loewenstein, Nagin, & Paternoster, 1997; Bouffard, 2002). Loewenstein and colleagues found sexually aroused college men, compared to non-aroused controls, were more likely to believe they would behave in a sexually forceful way while on a hypothetical date (Loewenstein, Nagin, & Paternoster, 1997). This conclusion was replicated a decade later when Bouffard found sexually aroused college men, compared to non-aroused men, reported a significantly higher likelihood of employing sexual coercion in a dating scenario (Bouffard, 2011).

Though these studies shed light on the attitudinal and personality characteristics of sexually aggressive men, the conclusions rely solely on self-report methodology. Studies on sexual aggression are often hindered by both a reliance on self-report measures and an absence of laboratory-based paradigms (Blader & Marshall, 1989; Hall & Hirschman, 1994).

Additionally, much of the relevant research has extensively depended on disputable analogue variables such as rape proclivity (e.g., likelihood of raping in the absence of punishment; Malamuth, 1981) and self-report measures so conspicuous that validity of the resulting

conclusions are questionable in numerous settings (Polascheka & Ward, 2002; Stermac, Segal, & Gillis, 1990). For example, convicted rapists have been found in several studies to report rather liberal attitudes of women in response to non-anonymous measures (Grubin & Gunn, 1990; Harmon, Owens, & Dewey, 1995; Scully, 1990), though when the measures are anonymous, the convicted rapists report much more conservative responses (Scott & Tetreault, 1987). Admitting to rape proclivity in the face of transparent measures goes against personal interest, so while a positive response is seemingly valid in its specificity, the paradigm potentially underestimates the scope of the problem. To remedy this limitation, Hall (1990) called for the development of less inferential experimental methods that complement self-report measures of sexual aggression.

To this end, Marx and Bernat developed and validated the auditory date-rape paradigm (ADRP), which utilizes decision-latency methodology (Marx, Gross, & Juergens, 1997). In a study by Bernat, Stolp, Calhoun, and Adams (1997), results demonstrated significant positive associations between prolonged decision latencies and sexually aggressive behavior, calloused sexual beliefs, acceptance of interpersonal violence, and sexual promiscuity. This experimental paradigm allows for the investigation of real-time decisions about sexual interactions, and situational variables implicated in naturalistic sexual aggression, like sexual arousal, can be experimentally manipulated and tested in an analogue manner (Bernat, Stolp, Calhoun, & Adams, 1997; Marx, Gross, & Juergens, 1997). For example, a study investigating the impact of alcohol and alcohol expectancies on male perception of female sexual arousal determined that the men who consumed alcohol or expected to consume alcohol took significantly longer to identify the inappropriateness of the man's sexual behavior toward his date in the paradigm (Gross, Bennett, Sloan, Marx & Juergens, 2001); these findings are in accord with much of the literature detailing that the consumption of alcohol, or the belief that alcohol has been consumed,

relaxes the standards for prosocial behavior (Seto & Barbaree, 1995; Wilson, 1981). So as to obtain a more accurate understanding of the processes underlying men's decisions to terminate unwanted sexual advances to date rape, this study aims to go beyond reliance on self-report via the use of the ADRP as an outcome measure of sexual aggression.

In sum, as research indicates, non-aroused men are unlikely to accurately anticipate how sexual arousal impacts sexually aggressive behavior (Bouffard, 2002). Equivalent prediction failures play an essential function in addictions, eating disorders, and a wide range of other disorders involving lapses in self-control (Loewenstein, 1996). Further elucidation of these findings via validated outcome measures like the ADRP will prove useful in the development of prevention programs that take into account sexual arousal's impact on behavior. To this end, the current study seeks to evaluate the impact of sexual arousal on men's ability to identify when sexual advances should cease in response to protest depicted in a date-rape scenario.

## STUDY AIMS

The primary aim of this study is to evaluate the effect of sexual arousal on men's ability to recognize when a man should cease sexual advances in response to female protest depicted in an auditory date-rape scenario. To accomplish this, men were randomly assigned to one of three experimental conditions: sexual arousal condition, a positive mood-inducing arousal condition, and a neutral condition. Sexual arousal was induced via exposure to a sexually explicit audio-visual recording. To evaluate the discriminant validity of the sexual response measurement, two non-sexual control videos were utilized. The two non-sexual control conditions were a neutral condition consisting of a nature travelogue and a positive mood inducing arousal condition comprised of a comedic film. Previous research has attempted to distinguish sexual arousal from general physiological arousal by using control groups experiencing negative mood inductions such as anger or fear (Prause, Cerny, & Janssen, 2005; Both, Everaerd, & Laan, 2003; Laan, Everaerd, & Evers, 1995). A positive emotional state, humor, was selected as the control for this study as research suggests that humor may better exemplify an analogous psychophysiological reaction within the body to sexual arousal than negative states of emotion (Fry, 2002); this would be particularly true in non-sexually dysfunctional populations, and would consequently function as a more appropriate control for general arousal. Other studies have determined discriminative validity of instruments measuring sexual response utilizing similar control methodology (Kukkonen, Binik, Amsel, & Carrier, 2007; Kukkonen, Paterson, Binik, Amsel, Bouvier, & Khalifé, 2006; Redouté, Stoléro, Grégoire, Costes, Cinotti, Lavenne, Le Bars, Forest, & Pujol, 2000).

Level of arousal across conditions were monitored via subjective self-report. The primary dependent variable was latency during the ADRP to indicate the point at which the man in the

depiction should stop his sexual advances. It was predicted that latency for the sexually aroused condition would be longer than the control conditions.

The current study also has secondary aims. From prior literature, it was predicted that (a) prior sexual perpetration would result in longer latency, (b) greater endorsement of rape myths would result in longer latency, and (c) engagement in sexual activity in the last 24 hours would result in shorter latency times for those in the sexual arousal condition.

## METHODS

### Participants

A total of 62 participants were drawn from a population of male undergraduate students enrolled in psychology courses at the University of Wisconsin – Milwaukee. Participants were compensated with 2 hours of extra credit in their psychology courses. During the consent procedure, participants were informed they would be exposed to graphic material similar to that in an R-rated film and potentially be exposed to material similar to that in an X-rated film. Further, they would be asked questions about sex, including unwanted sex. The consent form is presented in the appendices section. Inclusion criteria were: male gender, 18 years of age or older, and enrollment in a psychology course permitting extra credit for research participation. Exclusion criteria were: female gender, age less than 18 years of age, does not understand fluent English, and prior participation in an ADRP study. Participants who identified their sexual orientation as exclusively homosexual were not excluded from participation in order to remain non-discriminatory; however, it was determined *a priori* that data from exclusively homosexual participants would not be used in the analyses of our *a priori* primary and secondary hypotheses. The data of 10 participants (16%) were excluded from analysis for identifying as exclusively homosexual, leaving the data of 52 participants for the current analyses. It was theorized that men who identify as exclusively homosexual would have difficulty finding the ADRP stimulus and pornographic video relatable. Additionally, because there were only ten homosexual participants in the sample, differences due to sexual orientation could not be explored using the current data set. Further, due to technical difficulties, one participant was not administered the self-report questionnaires; however he did complete the demographic questionnaire as well as provide latency time for the ADRP.



Complete demographic data were available for the 52 participants. The mean age of the sample was 22.6 years, with a modal age of 20 and a range from 18-46 years. The sample was mostly Caucasian (75.0%) with a mix of other races. Sample characteristics are summarized in Table 1. Two participants (3.9%) identified as bisexual, one participant (1.9%) identified as pansexual, and the remainder identified as heterosexual.

Table 1.  
*Distribution of Race in Total Sample (n=52).*

Racial Identity	n	% of total sample
Caucasian	39	75.0
African American	6	11.5
Asian or Pacific Islander	3	5.8
Native American	2	3.9
Hispanic	1	1.9
Other	1	1.9

### Experimental Audio-Visual Stimuli

Erotic films have been shown to induce greater levels of both genital engorgement and subjective arousal when compared to stories, slides, and fantasies (Janssen, Carpenter, & Graham, 2003; Koukounas, 1997; Smith & Over, 1987). A total of four 10-minute audiovisual film segments were used as stimuli. All video clips were validated for their intended manipulation purpose, as detailed in the corresponding cited studies. One was shown to all participants: a neutral baseline video segment depicting a travelogue of the Yukon and Alaska to allow for arousal stabilization and a baseline arousal measure (Day, Cook, & Wolfe, 2001). The remaining three films were part of experimental manipulation: (1) a neutral control condition consisting of a travelogue of the Amazon (Day, Cook, & Wolfe, 2001); (2) a humor control condition comprised of segments of *The Best Bits of Mr. Bean* (Vertue, Davies, Birkin, &

Weiland, 1999); and (3) an erotic film clip “Under a Gazebo” sequence of *Outdoor Ecstasy* that depicts a heterosexual couple engaging in consensual petting (kissing, genital and non-genital touching), oral sex, and vaginal intercourse in and around an outdoor gazebo (Janssen, Carpenter, & Graham, 2003). The woman in the film directly and actively solicits the man’s sexual interest, and the sequence was previously rated as being arousing for men.

### Measures

*Subjective Measure of Arousal.* As an experimental manipulation check, subjective arousal was assessed with a series of separate Likert-style items. After each video, participants responded to one question each on relaxation (*overall, how relaxed did you feel during this film*), enjoyment (*overall, how much did you enjoy the film*), humor (*overall, how funny did you find the film*), and sexual arousal (*overall, how sexually aroused did you become during this film*) using a scale from 0 to 10, with 0 being “not at all” and 10 being “the most ever” (Kukkonen, Binik, Amsel, & Carrier, 2010). Correlations between men’s genital responses and self-reports of sexual arousal are, on average, substantial in nature ( $r=.71$ , CI, .50 to .91;  $n=288$ ) (Chivers, Seto, Lalumière, Laan, & Grimbos, 2010). In light of these sufficient correlations in men, Chivers and colleagues concluded that assessing self-reported levels of sexual arousal is informative when genital measures are not available and there is no motivation to conceal sexual arousal.

*Response Latency Measure.* The ADRP is an experimental analogue of date rape that uses a brief (390 second) audio recording to provide the dependent variable via response latency (Marx & Gross, 1995). The recording depicts strong inhibiting and disinhibiting cues for sexual contact that increase as the tape progresses. The date rape scenario portrays conversation and mutual sexual activity escalating to forced sexual intercourse. Response latency was defined as the length of time taken by participants to determine when the male in the audiotape should

refrain from making further sexual advances. Latencies were recorded in seconds. The validity of the scenario depicted on the tape and the subsequent latency procedure have been demonstrated (Marx & Gross, 1995; Bernat, Stolp, Calhoun, & Adams, 1997; Sloan & Gross, 1998).

Several additional standardized self-report measures were administered, copies of which can be found in the appendices section along with copies of the debriefing questions administered at the end of a study session.

*Demographic Information Form.* Background information was collected on participant age, language, birthplace, sexual orientation, occupational status, years of schooling, race/ethnicity, current relationship status, family, and medication use.

*Measure of Victim and Perpetrator Blame.* Participants completed an 11-item adapted measure of victim and perpetrator blame (Abrams, Viki, Masser, & Bohner, 2003). Participants indicated their responses using a 9-point scale (1=*Not at all*, 5=*Somewhat*, 9=*Completely or Totally*). For the two items in which participants assign blame or sympathy, participants used a different 9-point scale (1 = *Dan*, 5 = *Dan & Jenny equally*; 9 = *Jenny*). Higher scores indicate more victim-blaming. Four items were reverse-scored and the mean was calculated. Abrams and colleagues reported a coefficient alpha of .75. Further, in a study assessing the effect of victim status and victim blame, researchers reported a coefficient alpha of .82 for the adapted measure (Chapleau, 2009).

*Perception of Sexual Aggression.* Participants used an 11-point Likert scale (0 = *Not at all*, 11 = *Definitely*) to respond to two questions regarding their perception of a sexually aggressive act in the scenario (“Do you think that Jenny consented to having sex with Dan?” and “Do you think Dan raped Jenny?”).

*Sexual Experiences Survey – Short Form Perpetration (SES-SFP)*. The Sexual Experiences Survey, developed in the 1970's by Koss and Oros, has been used extensively to measure sexual violence victimization and perpetration (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007). According to Kolivas and Gross (2006), the SES is the best available instrument to detect sexual perpetration and victimization. The SES-SFP, a shortened version of the SES, assesses whether specific types of sexual activities have been attempted or completed by the participant against another individual (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007). Participants answered based on how frequently each experience happened during the past 12 months and since age 14 (never, once, twice, three or more times). This instrument has demonstrated good validity (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007).

*Sexual Experiences Survey – Short Form Victimization (SES-SFV)*. The SES-SFV, a shortened version of the SES, assesses participants' unwanted sexual experiences occurring after age 14 (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007). Possible victimization experiences include unwanted sex play, unwanted oral, vaginal, and anal sex, degree of force, and use of alcohol/drugs to coerce sexual experiences. Participants answered based on how frequently each experience happened during the past 12 months and since age 14 (never, once, twice, three or more times). This instrument has demonstrated good validity (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007).

*The Illinois Rape Myth Acceptance Scale – Short Form (IRMAS-SF)*. This scale contains 20 items each scored according to a 9-point Likert scale (1 = *Not at all agree*, 5 = *Somewhat agree*, 9 = *Very much agree*) to assess agreement with myths about women as victims of rape, male perpetrators, and rape as a violent crime (Payne, Lonsway, & Fitzgerald, 1999). The total

score was calculated by computing the mean. Higher scores signify more agreement with rape myths. Payne and colleagues reported a coefficient alpha of .93 (1999).

*Crowne-Marlowe Social Desirability Scale (MCSDS).* The MCSDS contains 33 True/False items assessing the extent to which a person responds in a socially desirable way on assessment surveys (Crowne & Marlowe, 1960). Two subscales make up the total MCSDS score: Attribution and Denial. The Attribution subscale addresses tendency to endorse items depicting socially approved, but uncommon behaviors. The Denial subscale addresses the tendency to deny socially disapproved, but common behaviors. One study indicated that the MCSDS has adequate internal consistency with a sample of sex offenders (Cortoni & Marshall, 2001). The MCSDS has demonstrated strong reliability and validity (Crowne & Marlowe, 1960; Beretvas, Meyers, & Leite, 2002; Loo & Thorpe, 2000; Tatman, Swogger, Love, & Cook, 2009).

*Hypergender Ideology Scale-19 (HGIS-19).* The HGIS-19 is a 19-item self-report scale used to assess adherence to extreme, stereotypical gender roles (Hamburger, Hogben, McGowan, & Dawson, 1996). Participants rate their agreement with a series of statements using a 6-point scale ranging from *strongly disagree* to *strongly agree*, with higher scores indicating a greater endorsement of hypergender ideologies. The scale demonstrates good reliability and good concurrent validity when compared to the Hypermasculinity Inventory (Hamburger, Hogben, McGowan, & Dawson, 1996). Research has found hypergender ideology level has a significant correlation to sexually aggressive behavior (Hogben, Byrne, & Hamburger, 1996; Ross & Allgeier, 1991).

*Recent Substance Use, Sexual Activity, and Exercise.* So as to assess factors potentially impacting obtained level of arousal, a series of multiple-choice items were administered to participants.

## Procedures

Study procedures are summarized in Figure 1. All data collection took place in Pearse Hall Suite 365 and Pearse Hall room 376. All Research Assistants (RAs) in this study who interacted with participants were male. Each participant was greeted by a study RA and escorted to a private room where the RA obtained the participant's informed consent to participate in the study, verified the person understood fluent English, and had not previously participated in this or another directly related study. At this time, the RA also verified the participant was at least 18 years of age by matching a picture identification card (e.g., driver's license) to the participant name provided on SONA. The RA provided the participant with a copy of the consent form, read the consent form to participant, and gave the participant an opportunity to ask any questions. Additionally, participants were informed they had the right to discontinue the study without penalty at any time. Upon determination that all questions had been answered to the participant's satisfaction, the RA obtaining consent invited the person to sign and date two copies of the consent form. The RA countersigned the consent form. The researchers kept one copy and the other copy was provided to the participant.

Upon obtaining informed consent, participants were randomly assigned to one of three experimental conditions: (a) a neutral control condition, (b) a humorous control condition, or (c) an erotic arousal experimental condition. Participants were allocated to one of the three conditions via randomly permuted-block randomization. These randomization procedures ensured that, at any point in the study, there was approximate balance across conditions (1:1:1) (Schulz & Grimes, 2002; Addelman, 1969). Personnel interacting with participants were kept blind to the randomization process.

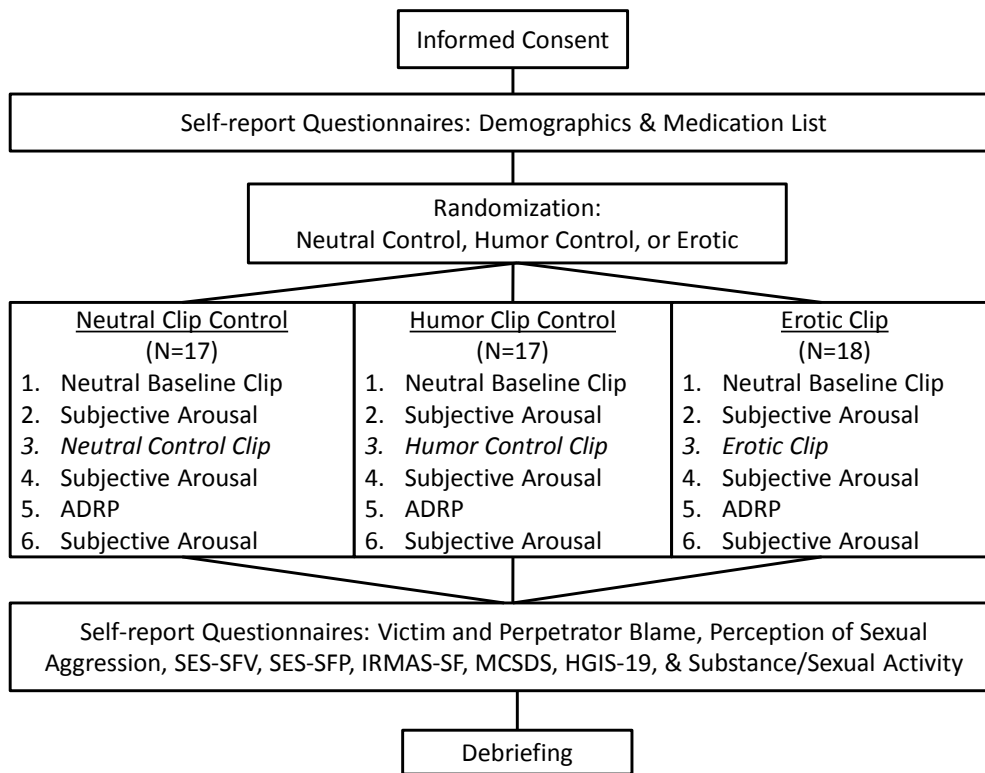


Figure 1. *Summary of procedural flow.*

Upon randomization, each participant completed the demographic questionnaire. Then, to allow for arousal stabilization and a baseline arousal measure, all participants viewed the 10-minute neutral video segment, followed by subjective arousal ratings. All stimuli and questionnaires were automated via computer so as to facilitate the experimental manipulation as well as enhance participant privacy. Participants were asked to watch the assigned experimental 10-minute stimulus to which they were randomized. After watching said stimulus, participants provided another subjective arousal rating. Ratings by participants of their arousal levels occurred directly after the videos, as correlations between subjective and genital arousal are higher when the subjective measure is given post-trial and not contiguous with stimulus

presentation (Chivers, Seto, Lalumière, Laan, & Grimbos 2010). Upon completing the ratings, participants then were presented with the following ADRP instructions:

Your task is to listen to the recording and immediately signal, by pressing the button in front of you, when the man should refrain from making further sexual advances. Even if you decide to press the button, you will be able to listen to the entire interaction from start to finish.

Participants pressed a key if/when they thought the man in the recording should refrain from making further sexual advances toward the female partner. Pressing the key also stopped the ADRP and participants provided subjective arousal ratings. The ADRP then automatically resumed until the analogue had finished. Participants who did not press the key completed the arousal ratings at the end of the ADRP. All participants then completed the following questionnaires: measure of Victim and Perpetrator Blame, Perception of Sexual Aggression, SES-SFP, SES-SFV, IRMAS-SF, MCSDS, and a short questionnaire on substance use, sexual and physical activity in the last 24 hours.

Following these procedures, all participants were provided with a short debriefing statement procedure based on Check and Malamuth's method (1984). The debriefing included three open-ended questions about their experience in the study and verbal review by the experimenter of the debriefing materials. The written debriefing materials included information about sexual assault which emphasized the falsehood of several rape myths possibly insinuated in the recording, reinforced the lack of blame for victims, and provided resources for victims of sexual assault in the community, a copy of which was provided to participants. Participants were also given the opportunity to ask questions regarding the study and sexual violence. A copy of the debriefing statement is included in the appendices section.



## RESULTS

Study surveys were summed according to the instrument instructions using SAS syntax. Descriptive statistics for study measures were computed including means, standard deviations (SD), and intercorrelations, which are represented in Table 7 and Table 8 in the appendices.

### Manipulation Check

To verify the experimental manipulation of arousal, a one way analysis of variance (ANOVA) was performed to determine whether conditions differed in subjective arousal ratings given after exposure to the experimental video clip. The means, SDs, and p-values are presented in Table 2. There were significant effects for condition on three of the four subjective ratings.

There was no condition effect on subjective levels of enjoyment,  $F(2, 51) = .19, p=.831$ .

There was a main effect for condition on sexual arousal ratings,  $F(2, 51) = 63.95, p<.001$ . Follow up *t*-tests for independent samples corresponding to each of the possible pairwise comparisons – neutral v. humor, neutral v. erotic, and humor v. erotic – were then computed. Sexual arousal ratings in the erotic condition were significantly higher than sexual arousal ratings in both the humor condition [ $t(33) = -7.69, p<.0001$ ] and the neutral condition [ $t(33) = -9.77, p<.0001$ ]. There was no statistical difference between the neutral condition and the humor condition in regard to sexual arousal ratings [ $t(33) = -1.13, p=.267$ ].

There was a main effect for condition on relaxation ratings,  $F(2, 51) = 17.33, p<.001$ . Follow up *t*-tests indicate relaxation ratings in the erotic condition were significantly lower than relaxation ratings in the humor condition [ $t(33) = 3.17, p = .003$ ] and the neutral condition [ $t(33) = 6.24, p<.001$ ]. Further, relaxation ratings in the humor condition were significantly lower than relaxation ratings in the neutral condition [ $t(17) = 2.40, p = .023$ ].

There was a main effect for condition on humor ratings,  $F(2, 51) = 17.81, p < .001$ . Follow up  $t$ -tests indicate humor ratings in the humor condition were significantly higher than humor ratings in both the neutral condition [ $t(32) = -6.05, p < .001$ ] and the erotic condition [ $t(33) = 2.70, p = .011$ ]. Further, humor ratings in the erotic condition were significantly higher than scores in the neutral condition [ $t(33) = -3.69, < .001$ ].

Additionally, to demonstrate this difference between conditions was due to an increase in arousal for the erotic condition and not a decrease in arousal for the control conditions, a mixed design ANOVA was utilized to examine the group by time effects. Specifically, there was a significant main effect for condition ( $F(2, 49) = 63.64, p < .001$ ) and a significant main effect for time ( $F(1, 49) = 73.60, p < .001$ ). Further, there was a significant interaction effect between time and condition on arousal levels ( $F(2, 49) = 60.18, p < .001$ ). In regards to the main effect of time, the erotic condition experienced a significant increase in arousal ( $F(1,17) = 96.23, p < .001$ ); however, neither the humor condition ( $F(1,17) = .958, p = .34$ ) nor the control condition ( $F(1,17) = 1.00, p = .33$ ) experienced a significant change in sexual arousal levels.

Table 2.

*Mean Subjective Arousal Ratings after Experimental video clip, by Condition (n=52).*

	Neutral (n=17)	Humor (n=17)	Erotic (n=18)	
	Mean (SD)	Mean (SD)	Mean (SD)	<i>p</i> value
Enjoyment	5.35 (3.0) <sup>a</sup>	5.00 (3.0) <sup>a</sup>	5.61 (3.0) <sup>a</sup>	.83 <sup>a</sup>
Sexual Arousal	0.06 (.2) <sup>a</sup>	0.53 (1.7) <sup>a</sup>	6.33 (2.6) <sup>b</sup>	<.0001
Relaxation	8.35 (1.3) <sup>a</sup>	6.82 (2.3) <sup>b</sup>	4.33 (2.4) <sup>c</sup>	<.0001
Humor Arousal	0.12 (.5) <sup>a</sup>	4.94 (3.2) <sup>b</sup>	2.33 (2.4) <sup>c</sup>	<.0001

Note. Means within a row sharing a common superscript are not different from one another.

Additionally, to ensure arousal levels were equal across conditions at baseline, further ANOVAs were performed. Specifically, there were no condition effects on baseline relaxation ratings [ $F(2, 51) = 1.33, p = .27$ ], baseline enjoyment ratings [ $F(2, 51) = .16, p = .86$ ], baseline

humor arousal ratings [ $F(2, 51) = .89, p=.42$ ], nor baseline sexual arousal ratings [ $F(2, 51) = .66, p=.52$ ].

### Primary Outcomes

In the ADRP, mutual interaction occurs between 0 and 77 seconds, mild pressure and polite refusals occurs between 78 and 136 seconds, moderate verbal pressure and refusals occur between 137 and 206 seconds, verbal threats and adamant refusals occurs between 207 and 287 seconds, and forced sex occurs at 288 seconds. The percentage of participants whose latencies fell into each of the five categories is presented in Table 3.

Table 3.

*Percentage of Categorical Responses, by Condition (n=52).*

Category	Total n=52	Neutral n=17	Humor n=17	Erotic n=18
Mutual Interaction	17.31%	11.76%	23.53%	16.67%
Mild Pressure and Polite Refusals	71.15%	82.35%	64.71%	66.67%
Moderate Verbal Pressure and Refusals	11.54%	5.88%	11.76%	16.67%
Verbal Threats and Adamant Refusals	0%	0%	0%	0%
Forced Sex	0%	0%	0%	0%

The means and SDs of latency times are presented in Table 4. Overall, the mean latency time for all groups was 91 seconds ( $SD=35.1$ ). It was predicted that latency for the sexually aroused condition would be longer than the control conditions. In order to determine whether participants differed in response latency by condition, a one way ANOVA was performed. The dependent variable was the length of time, in seconds, participants waited to press the button (response latency). The independent variable was the condition to which the participant was randomly assigned. There was no significant main effect for condition,  $F(2, 49) = .239, p = .789$ .

As a descriptive index of strength of association between the experimental factor and a dependent variable, effect size was calculated to be  $\eta^2=0.01$ , suggesting a small effect.

Table 4.  
*Mean Response Latency Time, by Condition (n=52).*

Condition	<i>N</i>	Mean (sec)	SD
Neutral	17	92.98	34.73
Humor	17	95.21	36.31
Erotic	18	87.17	35.85
Total	52	91.70	35.11

### Secondary Outcomes

In regards to prior sexual perpetration, it was predicted that prior sexual perpetration would result in longer latency. The means and SDs of latency times by condition and perpetration history are presented in Table 5. None of the study participants acknowledged ever raping another individual; however, 17.31% ( $n=9$ ) of the participants behaviorally indicated at least one instance of utilizing aggressive behavior to obtain sex. As evident by chi-square analysis, frequency of sexual perpetration history did not significantly differ across conditions ( $\chi^2=.67, p=.72$ ). A 3 (condition) x 2 (perpetration history) between-subjects factorial ANOVA was calculated comparing the latency times. As above, there was no significant main effect for condition ( $F(2, 46) = 2.18, p=.13$ ). Further, there was no significant main effect for perpetration history on latency time ( $F(1, 46) = .084, p=.77$ ); however, there was a significant interaction effect between perpetration history and condition on latency time ( $F(2, 46) = 4.13, p=.02$ ). After applying Fisher's Least Significant Difference (LSD) posthoc test, it was determined that individuals with a perpetration history in the humor group had a significantly longer latency time compared to individuals with a perpetration history in the neutral group ( $p=0.04$ ); other perpetration history by condition comparisons were not significant ( $p>.05$ ).

Table 5.  
*Mean Response Latency, by Perpetration History Status and Condition (n=52).*

	Neutral		Humor		Erotic	
	Mean (SD)	n	Mean (SD)	n	Mean (SD)	n
Perpetration History	54.65 (39.3)	3	135.47 (2.1)	2	96.55 (36.1)	4
No Perpetration History	101.20 (28.9)	14	89.84 (35.3)	15	84.49 (36.7)	14

In regards to rape myth acceptance, it was predicted that greater endorsement of rape myths would result in longer latency. The mean score of the sample on the IRMAS-SF was 2.98, with a modal score of 2.10 and a range from 1.70-4.75. After median split (*median*=2.85), a 3 (condition) x 2 (high v. low IRMAS-SF) between-subjects factorial ANOVA was calculated comparing the latency times. As above, there was no significant main effect for condition ( $F(2, 45) = .272, p=.76$ ), as well as no significant main effect for IRMAS-SF status on latency time ( $F(1, 45) = 1.249, p=.27$ ). Further, there was no interaction effect between condition and IRMAS-SF status on latency time ( $F(2, 45) = .626, p=.54$ ).

Regarding hypergender ideology, it was hypothesized that greater endorsement of hypergender ideology would have a moderating effect on latency. The mean score on the HIS-19 was 3.60, with a modal score of 3.25 and a range of 2.83-4.42. After median split (*median*=3.58), a 3 (condition) x 2 (high v. low HIS-19) between-subjects factorial ANOVA was calculated comparing the latency times. As above, there was no significant main effect for condition ( $F(2, 45) = .278, p=.76$ ), as well as no significant main effect for HIS-19 status on latency time ( $F(1, 45) = .170, p=.68$ ). Further, there was no interaction effect between condition and HIS-19 status on latency time ( $F(2, 45) = .107, p=.90$ ).

In regards to recent sexual activity, it was predicted that engagement in sexual behavior in the last 24 hours would result less level of sexual arousal and thus shorter latency times for those in the sexual arousal condition. Approximately 41% ( $n=7$ ) of participants in the sexual

arousal condition indicated engaging in sexual activity resulting in ejaculation within 24 hours prior to participation in the study. Among those in the sexual arousal condition, there was no significant main effect of sexual activity on sexual arousal levels,  $F(1, 16) = 1.40, p = .26$ . Subsequently there was no significant effect on latency times,  $F(1, 16) = .02, p = .88$ .

### Additional Analyses

Overall, in regards to participants' perception of rape in the date-rape scenario, 67.3% ( $n = 35$ ) of the sample gave the two highest ratings to express their certainty that Dan raped Jenny. Level of rape perception is presented in Table 6. It should be noted that although participants were given the option to terminate the audio clip any time after indicating Dan should cease, all participants in the study chose to listen to the complete audio interaction. After median split ( $median=9$ ), a 3 (condition) x 2 (high v. low perception) between-subjects factorial ANOVA was calculated comparing the latency times. As above, there was no significant main effect for condition ( $F(2, 44) = .120, p=.89$ ), as well as no significant main effect for perception status on latency time ( $F(1, 45) = .047, p=.83$ ). Further, there was no interaction effect between condition and perception status on latency time ( $F(2, 45) = .464, p=.63$ ).

Table 6.  
*Level of Perception of Rape (n=50).*

	%	<i>n</i>
1 - Not at all	1.9	1
2	3.8	2
3	0.0	0
4	5.8	3
5	0.0	0
6	5.8	3
7	11.5	6
8 V	15.4	8
9 - Definitely	51.9	27

In regards to social desirability, the mean score on the MCSDS was 19.3, with a modal score of 19 and a range from 9-27. About two respondents in three earn a score from 9 through 19; these individuals tend to show an average degree of concern for the social desirability of their responses, and it may be that their general behavior represents an average degree of conformity to social rules and conventions. After median split (19), a 3 (condition) x 2 (high v. low MCSDS) between-subjects factorial ANOVA was calculated comparing the latency times. As above, there was no significant main effect for condition ( $F(2, 45) = .639, p=.53$ ), as well as no significant main effect for MCSDS status on latency time ( $F(1, 45) = 2.565, p=.12$ ). Further, there was no interaction effect between condition and MCSDS status on latency time ( $F(2, 45) = .393, p=.68$ ).

Approximately 23% (n=12) of the participants behaviorally indicated at least one instance of being a victim of sexually aggressive behavior, with approximately 6% (n=3) indicating specifically that they had been raped. As evident by chi-square analysis, frequency of sexual victimization history did not significantly differ across conditions ( $\chi^2=2.29, p=.32$ ). A 3 (condition) x 2 (victimization history) between-subjects factorial ANOVA was calculated comparing the latency times. As above, there was no significant main effect for condition ( $F(2, 46) = .734, p=.49$ ), as well as no significant main effect for victimization history on latency time ( $F(1, 46) = .073, p=.79$ ). Further, there was no interaction effect between condition and victimization history on latency time ( $F(2, 46) = 1.62, p=.21$ ).

Approximately 59% (n=10) of participants in the sexual arousal condition indicated engaging in physical exercise within 24 hours prior to participation in the study. To assess whether level of physical activity affected arousal levels in the sexual arousal condition, a one way ANOVA was performed. Among those in the sexual arousal condition, there was no

significant main effect of physical activity effect on sexual arousal levels,  $F(1, 16) = 1.08, p = .31$ . Subsequently there was no significant effect on latency times  $F(1, 16) = .33, p = .58$ .

In regards to substance use affecting arousal levels, a limited portion of participants in the sexual arousal condition indicated recent substance use, subsequently limiting analysis. Only one participant in the sexual arousal condition indicated utilizing marijuana within 24 hours prior to participation in the study. Further, no participants in the sexual arousal condition indicated alcohol use in within 24 hours prior to participation in the study.



## DISCUSSION

Despite a well-developed literature detailing the severe physical and mental ramifications sexual violence has on public health, the field has had little success in identifying interventions that reliably decrease the incidence of this phenomenon. Specifically, interventions targeting men have demonstrated varied success in addressing rape supportive beliefs, rape-myth acceptance, rape empathy, and other outcomes (Morrison, Hardison, Mathew, & O'Neil, 2004). Findings propose that male-focused programs are initially effective in yielding short-term, favorable attitude adjustment, but longer-term studies suggest these initial outcomes are indeed temporary and thusly deteriorate over time (Breitenbecher, 2001; Yeater & O'Donohue, 1999; Heppner, Neville, Smith, Kivlighan, & Gershuny, 1999; Flores & Hartlaub, 1998; Foubert & McEwen, 1998). Krebs and colleagues have suggested prevention programs should include factors that men encounter in common college social situations (Krebs, Lindquist, Warner, Fisher, & Martin, 2007). One such possible factor is the impact of sexual arousal on men's ability to stop sexual advances in the face of partner protest. Supporting this claim, Loewenstein and colleagues found sexually aroused college men were more likely to believe they would behave in a sexually forceful way while on a hypothetical date compared to their non-aroused counterparts (Bouffard, 2011; Loewenstein, Nagin, & Paternoster, 1997).

Though these studies detail attitudinal and personality characteristics of sexually aggressive men, the conclusions rely solely on self-report methodology. The current study was designed to go beyond the utilization of self-report outcome measures to further explore the role of sexual arousal on men's ability to detect protest via a validated outcome measure (i.e., the ADRP). Previous research has shown promise in using the ADRP to predict the occurrence of assault and subsequent perpetration after an intervention (Marx, Calhoun, Wilson, & Meyerson,

2001). Further, in a study by Bernat, Stolp, Calhoun, and Adams (1997), results demonstrated significant positive associations between prolonged decision latencies and sexually aggressive behavior, calloused sexual beliefs, acceptance of interpersonal violence, and sexual promiscuity.

In regards to the primary aim of this study, it was predicted that latency times for the sexually aroused condition would be longer than the two control conditions. As noted in the results section, there was no significant effect of condition on latency time. That said, the lack of group differences in response latency must be regarded with caution; it should be highlighted that, for logical reasons, one cannot definitively rule out the possibility that the effect exists given the currently limited sample size. Additionally, this finding is in contrast to other studies that have suggested sexually aroused college men, compared to non-aroused men, report significantly higher likelihood of employing sexual coercion in a dating scenario (Bouffard, 2011; Loewenstein, Nagin, & Paternoster, 1997). However, as detailed in the introduction, methodological differences (e.g., manipulation of arousal, type of vignette used, etc.) could suggest likely explanations for incongruities in results across studies.

Given a larger sample size, this particular finding could ultimately indicate that men's ability to detect female protest is not affected by their level of sexual arousal, shedding further light on studies that demonstrate approximately 20% of college men report at least one occurrence of becoming so sexually aroused that they *believed* they could not prevent themselves from having sex, despite female dissent (Peterson & Franzese, 1987; Koss & Oros, 1982). Despite their belief that they cannot control themselves in the face of sexual arousal, the current findings of this study propose that in fact men's decision latencies, associated with sexually aggressive behavior, are not impacted by the motivational state of arousal. This notion has been largely supported by the social psychology perspective, particularly the feminist perspective,

which rejects sexual motivation as an imperative explanatory factor by conceptualizing sexual arousal more as an incidental consequence of the context of rape (Brownmiller, 1975).

To further note, prior research utilizing the ADRP in men predominantly occurred more than 12 years ago. At that time, studies cited non-sexually aggressive college male latency means ranging from 135s with a SD of 37.8s (Gross, Bennett, Sloan, Marx, & Juergens, 2001) to 146.54s with and SD of 35.4 among (Bernat, Calhoun, & Stolp, 1998). The current findings, utilizing the same ADRP protocol as the aforementioned studies, have a mean latency time approximately 55s shorter. Given this study's social desirability scores detail a participant pool comprised of individuals inclined to demonstrate an average degree of concern for the social desirability, it could be suggested that latency times were not impacted by a need for coming across as socially desirable. Keeping in mind the limited sample size of the study, this marked difference in latencies could be due to several different factors.

Specifically, during the 1980s, activists and researchers stressed that the narrow focus on stranger rape thwarted acknowledgment of the majority of sexual assaults, which were in fact committed by acquaintances (e.g., Koss, Gidycz, & Wisniewski, 1987). As a result, "acquaintance rape" became a chief public health concern, and the media quickly began to bring attention to the topic (Parrot & Bechhofer, 1991). Since that time, a great body of research has developed exploring sexual assault arising in the acquaintance context, predominantly on college campuses. As a result, major positive changes have occurred in the way society understands and subsequently responds to sexual violence (Gavey, 2005). These shifts included: amplified public saliency, increased services for victims, extensive legislative reform, further research and funding to better comprehend the problem, as well as the employment of education in numerous communities. Consequently, numerous studies indicate that in recent times, individuals largely

have a low level of rape myth acceptance (Ferro, Cermele, & Saltzman, 2008), which has been associated with less sexually aggressive behaviors (Payne, Lonsway, & Fitzgerald, 1999). The current study's IRMAS-SF scores are consistent with other recent studies (Baugher, Elhai, Monroe, & Gray, 2010; Basow & Minieri, 2011) and are lower than past studies (Bohner, Danner, Siebler, & Samson, 2002; Lonsway, Klaw, Berg, Waldo, Kothari, Mazurek, & Hegeman, 1998). Further, the fact that 70% of the participants in this study gave the two highest ratings to express their certainty that Dan raped Jenny might be a testament to these societal shifts.

Despite these promising findings, Berkowitz noted that, while the majority of males are uncomfortable when they observe harassment and other forms of sexual violence, men unfortunately are unaware of how to react to said behaviors (Berkowitz, 2003). Though the men in this study indicated when the "man should refrain from making further sexual advances," their responses do not *necessarily* denote that the participants would know how to react in that particular situation. This factor could ultimately yield the observed shorter latency times and subsequent lack of variability between conditions. Further, in light of the current study's findings, sexual arousal may not necessarily affect the detection of the "stop" cues, but rather that it may ultimately reduce men's ability or willingness to inhibit sexual behavior; for example, a male think, "I really should stop, but I also really don't want to."

Other elements that could be contributing to the null findings in regards to the effects of sexual arousal on latency time are largely methodological in nature. Specifically, one problematic element for audio-taped vignettes, specifically the ADRP, is that participants are asked about the point at which they perceive protest; this methodology is likely to be a significant cue for recognizing said protest. Further, there are likely no such forewarning stimuli

in real-life threatening situations, particularly in the context of social interactions. Therefore, these vignettes aiming to measure protest recognition may not be fully depicting the intricacies of real-world social interactions (Gidycz, McNamara, & Edwards, 2006). Additionally, participants were far removed emotionally from the interpersonal nature of a date rape interaction, potentially resulting in responses that would not occur if the participant knew the individuals or if he were part of the interaction.

Additionally, it has been suggested that the external validity of the vast majority of vignettes utilized is questionable. For example, in a study where participants' heart rates were measured as an audio-taped interaction between a man and a woman escalated to a rape, it was found that the later portions of the interaction where the man was most aggressive did not yield greater physiological reactivity compared to baseline. The researchers proposed that the participants' possibly recognized the artificial nature of the audio interaction (Soler-Baillo, Marx, & Sloan, 2005). Potential recognition of contrived characteristics of the ADRP could have resulted in skewed response latency.

Further, it is important to note that none of the studies using the ADRP have included a control scenario that did not depict a risky situation. In regards to this study, 17.3% of the total sample provided a response that could be conceptualized as a false positive (i.e., they responded during the mutual interaction segment of the ADRP). Without this type of control condition, the possibility that participants do not react similarly to low-risk situations cannot be excluded as a methodological artifact. That said, removing these abovementioned outlying participants from this study's analyses did not yield significantly different results across any of the variables assessed.

Another methodological factor that could be impacting sexual arousal's effect on latency time is the type of pornography utilized. Specifically, humor ratings in the erotic condition were significantly higher than humor ratings in the neutral condition. This suggests that participants found the pornographic video content significantly more humorous than the neutral video content. Given that the video was produced in 1998, the outdated quality and production value may have resulted in an unintentional effect on humor ratings among participants in the erotic condition. This inadvertent effect could have then affected the way in which the men reacted to the pornographic content, potentially skewing overall sexual arousal levels and subsequent latency times.

Additionally, altering the pornographic stimuli to depict less overt female dominance and more overt male dominance could potentially elicit different latency patterns. In a meta-analysis of experimental studies, researchers reported a significant effect of pornography consumption on sexually violent behavior, with a stronger effect for violent than non-violent pornography (Allen, D'Alessio, & Brezgel, 1995). This finding was replicated by Hald and colleagues (2010), where the research group found there was a significantly stronger association between violent pornography consumption and sexual violence compared to non-violent pornography. While these studies focus on habitual pornography consumption as a participant characteristic, it may point to underlying effects of sexual arousal on sexually violent behavior in a more sexually aggressive context.

An additional methodological factor that may have impacted participant response to the ADRP was potential awareness of experimental aims. As evident in appendices, the informed consent clearly underlines the fact that participants have a 33% chance of being exposed to a pornographic video. Knowing that two of the three videos did not contain pornographic material,

it is possible that participants were able to determine the nature of the research question upon exposure to their experimental video and then subsequent exposure to the ADRP task. If a participant were to have knowledge of the reason for the experimental manipulation, their response to the ADRP would most likely result in shortened latency times.

The current study also had secondary aims. From prior literature, it was hypothesized that prior sexual perpetration will result in longer latency. According to the SES-SPV, 17.31% (n=9) of the participants behaviorally indicated at least one instance of utilizing aggressive behavior to obtain sex. This is slightly lower compared to other studies finding that 25.2% of college men surveyed reported engaging in some form of sexually aggressive behavior after age 14 years (Koss, Gidycz, & Wisniewski, 1987). As detailed in the results section, those with a history of perpetration did not significantly differ in response to the ADRP compared to their counterparts without a history of perpetration. This is in contrast to past studies of the ADRP, where history of sexually violent behavior was associated with longer latency times (Bernat, Stolp, Calhoun, & Adams, 1997). However, this lack of significance paired with this study's lower rates of perpetration compared to older studies could reflect the aforementioned positive societal shifts which have fostered better understanding and subsequently better response to sexual violence (Gavey, 2005).

In addition to the *a priori* sexual perpetration hypothesis, it was predicted that greater endorsement of rape myths would result in longer latency. As noted in the results section, there was no significant moderating effect of rape myth acceptance on latency time. Research suggests that numerous factors are related to rape proclivity and sexual aggression, one of which is the acceptance and dissemination of rape myths (Desai, Edwards, & Gidycz, 2008; Lonsway & Fitzgerald, 1994; Loh, Gidycz, Lobo, & Luthra, 2005). Rape myths, which include elements of

victim blame, perpetrator forgiveness, and minimization or justification of sexual violence, ultimately propagate sexual violence (Payne, Lonsway, & Fitzgerald, 1994). A considerable amount of research has developed to measure rape myth acceptance, yielding further understanding of who is more likely to adhere to rape myths (Currier & Carlson, 2009; Suarez & Gardalla, 2010). Specifically, research has recognized that men's utilization of sexual violence is predicted by rape myth acceptance (Desai, Edwards, & Gidycz, 2008; Loh, Gidycz, Lobo, & Luthra, 2005).

Despite the robust body of literature detailing this association, methodological artifacts could be contributing to underreporting and in turn explain the current study's null finding in regards to rape myth acceptance. Specifically, rape myths may frequently function implicitly rather than explicitly, and self-report rape myth measures may not be able to fully detect the more subtle myths (McMahon & Farmer, 2011). Present measures assessing rape myths, like IRMAS, typically include the word "rape" (e.g., "If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control."). This assessment technique is quite inconsistent with how the field typically measures sexual perpetration and victimization histories; specifically, using behavioral definitions, such as in the SES (Koss & Oros, 1982; Koss et al., 2007), is much favored to more accurately determine sexually violent experiences. For example, 16% of college men agreed with the statement "Although most women wouldn't admit it, they generally find being physically forced into sex a real 'turn-on,'" whereas 4% of the same college men agreed with the statement "Many women secretly desire to be raped" (Edwards, Turchik, Dardis, Reynolds, & Gidycz, 2011). These two statements are largely similar in nature; the main exception is that the first statement utilizes "physically forced" where the second statement includes the word "raped." This pattern was replicated in the current study, where



none of the participants explicitly acknowledged ever raping another individual; however, 17.31% of the participants behaviorally indicated at least one instance of utilizing aggressive behavior to obtain sex.

Further, research demonstrates that despite men generating automatic implicit associations between power and sex, they might not explicitly endorse these myths on highly face valid self-report measures of rape myths. In light of the face validity of most rape myths measures, it is challenging to fully understand the level of bias affecting participant reporting. Given the constraints of the self-report measure utilized in this study, one must take into account these potential limitations in the application of the findings.

In addition to rape myth acceptance affecting latency, it was additionally hypothesized that greater endorsement of hypergender ideology would result in longer latency. As noted in the results section, mean hypergender ideology scores did not have a moderating effect on latency time. That said, power analysis suggested that these results be interpreted with caution, particularly given the low sample size in assessing moderating effects.

In addition to hypergender ideology affecting latency, it was also hypothesized that engagement in sexual activity in the last 24 hours would result in shorter latency times for those in the sexual arousal condition. As noted in the results section, recent sexual activity did not significantly impact sexual arousal levels, and subsequently did not affect latency time. Additionally, physical exercise and substance use, other behaviors thought to lessen levels of sexual arousal, did not significantly affect reported sexual arousal levels nor latency times. Again, these results must be interpreted with caution given the low sample size in assessing these moderating effects.

Although this study provides some insight into the effects of sexual arousal on men's ability to identify protest in a date rape scenario, future studies should take into consideration the abovementioned limitations to this study. Specifically, future research should attempt to minimize biased reactions to the vignette through the use of a control ADRP clip that does not escalate to rape so to assess false positives, provide alternative instructions to minimize cuing participants to the upcoming depiction of sexual violence, as well as use a more restricted informed consent to minimize awareness of experimental goals. Additionally, it would be interesting to assess the effects of a more aggressive pornographic film to better understand the role of violent pornography in participant reaction to the ADRP. Further, though this study utilized a positive emotional state control in an attempt to distinguish sexual arousal from general positive physiological arousal, it would be worthwhile to use a control group experiencing more negative mood inductions such as fear or anger through exposure to more violent video clips. Moreover, though past studies have determined a high correlation between subjective reports of sexual arousal and physiological measures of sexual arousal in men, use of a physiological measure (e.g., penile plethysmograph) to better assess measures of arousal could prove beneficial. Finally, a study with a larger sample size could better explore the moderating effects of the attitudinal and behavioral measures.

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## APPENDIX A. Informed Consent

**UNIVERSITY OF WISCONSIN – MILWAUKEE  
CONSENT TO PARTICIPATE IN RESEARCH****THIS CONSENT FORM HAS BEEN APPROVED BY THE IRB FOR A ONE YEAR PERIOD****1. General Information****Study title:** Men's attitudes and behavior in relationships**Person in Charge of Study (Principal Investigator):** Shawn P. Cahill, Ph.D., Associate Professor,  
Department of Psychology, University of Wisconsin – Milwaukee (UWM)**2. Study Description**

You are being asked to participate in a research study. Your participation is completely voluntary. You do not have to participate if you do not want to.

**Study description:**

The purpose of this study is to collect information about men's sexual attitudes and behavior in relationships. To accomplish this, you will be asked to complete questionnaires that ask about a variety of topics including beliefs, behavior and feelings in and about intimate relationships and sex. You will be asked to provide sensitive information about your attitudes and experiences in regards to sex and relationships, including specific types of experiences such as unwanted sexual contact. You will also be asked to view video clips, a portion of which may be pornographic in nature, featuring a consenting heterosexual couple. Further, you will be asked to listen to an audio taped portrayal of a relationship issue involving sex, similar to what you may experience in an R-rated movie. This is being done to examine the different ways men may behave in relationships. It should take approximately 120 minutes to complete all components of the study. In total, we expect to recruit up to 104 male students here at UWM to participate in this study.

**3. Study Procedures****What will I be asked to do if I participate in the study?**

If you agree to participate you will be asked to complete questionnaires on a computer about your behavior, beliefs, and feelings in and about relationships, as well as questions about your drug, alcohol, and medication use. You will be asked to view video recordings, the content of which may be sexually explicit in nature, specifically content from an adult X-rated film, including nudity and overt sexual behavior. The chance you will be exposed to the sexually explicit video is one in three, or 33%. You will also be asked to listen to an audio recording that portrays a relationship issue. During the audio recording you will be exposed to graphic content similar to material that may occur in an R-rated film, which will include strong language, sexual situations, and depictions of unwanted physical contact or violence. This may be upsetting or uncomfortable for you. After listening to the audio recording, you will be asked a

series of computerized questionnaires. All tasks will be completed on computer in a private space designated for human research located in either Pearse Hall or Garland Hall.

#### 4. Risks and Minimizing Risks

##### **What risks will I face by participating in this study?**

You will face minimal risks by participating in this study. You may experience emotional discomfort. The risk of experiencing distressing and uncomfortable emotions may be higher for men for whom abuse or assault has been a part of previous or current relationships, in their relationships. You will be asked about your attitudes and behaviors in regards to relationships and sexual behavior; this may include disclosing information about unwanted sexual experiences, and about things you have done or have been done to you. Some people may feel uncomfortable providing personal and sensitive information. As discussed in Section 7 below, we have taken several steps to insure that your responses to study questionnaires and stimuli are both confidential and anonymous. As part of your participation, you may experience some discomfort upon exposure to sexually explicit video content, contrary to personal or religious beliefs. Further, you will be asked to listen to an audio recording about a relationship issue. The audio recording contains graphic material similar to material that may be seen in an R-rated film which may be upsetting. If you feel distressed by any of these tasks, you may discontinue participation at any time without penalty. To discontinue your participation, all you have to do is verbally inform the person assisting you that you wish to stop. You will receive full credit for participating in the study regardless of how much of the study you complete. You may also contact the study's Principle Investigator, Dr. Cahill, who has experience in helping individuals in emotional distress. In addition, if you become upset during or after your participation in this study, or for any other reason wish to receive psychological counseling services, you may do so at no additional cost through the Norris Health Center located at:

3351 North Downer Avenue  
Milwaukee, WI 53211  
(414) 229-4716

#### 5. Benefits

**Will I receive any benefit from my participation in this study?** A benefit to participating in this study is that you may receive extra credit in your psychology course. Whether you will receive extra credit is determined by your instructor and cannot be guaranteed by the Principal Investigator of the study. Further, the information obtained from this study will potentially help our understanding of men's attitudes and behaviors in relationships.

#### 6. Study Costs and Compensation

##### **Will I be charged anything for participating in this study?**

You will not be responsible for any of the costs from taking part in this research study.

##### **Are subjects paid or given anything for being in the study?**

As stated above, you may receive extra credit in your psychology course. Specifically, you will receive two hours of extra credit for participating in this study. Receiving extra credit is determined by your instructor and cannot be guaranteed by the Principal Investigator of the study.

## 7. Confidentiality

### What happens to the information collected?

All information collected about you during the course of this study will be kept confidential to the extent permitted by law. We may decide to present what we find to others, or publish our results in scientific journals or at scientific conferences. Information that identifies you personally will not be released without your written permission. The information you disclose about your experiences will not be linked to your personal identity and will be complete anonymous. Only the Principle Investigator and a small number of research assistants under his supervision will have access to the information. However, the Institutional Review Board at UW-Milwaukee or appropriate federal agencies like the Office for Human Research Protections may review this study's records. All study data will be identified only by a unique Identification number and no list connecting names to participant identification numbers is created in this study. Therefore, there is no way to link specific questionnaire responses to specific individuals. To further ensure confidentiality, all electronic data will be encrypted and stored in locked files available only to investigators and research assistants directly involved in this project. Records of your participation in this study will be kept for up to ten years after collection for future use.

## 8. Alternatives

### Are there alternatives to participating in the study?

Your course instructor determines whether or not you may receive extra credit for participation in research; please check with your instructor before completing participation in a study. If your course instructor does provide extra credit for participation in research, but you do not wish to participate in this particular study, there are other studies available through the Department of Psychology and you may learn about these studies by going to the bulletin board located outside the Psychology Department Office (Garland 224), asking your instructor, or accessing UWM's Sona System website (<http://uwmilwaukee.sona-systems.com>). If your instructor provides extra credit for participation, he or she will determine if an alternative extra credit option is available for those who do not wish to participate in research.

## 9. Voluntary Participation and Withdrawal

### What happens if I decide not to be in this study?

Your participation in this study is entirely voluntary. You may choose not to take part in this study. If you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the University of Wisconsin Milwaukee. If you choose to withdraw from this study, we will destroy all information we collect from you. Your decision will not change any present or future relationships with the University of Wisconsin Milwaukee. Not taking part in the study or withdrawing

will not affect your grade or class standing. You will receive partial compensation for completing any part of the study.

## 1. Questions

### **Who do I contact for questions about this study?**

For more information about the study or the study procedures or treatments, or to withdraw from the study, contact:

Shawn P. Cahill, Ph.D.  
Department of Psychology  
PO Box 413  
Milwaukee, WI 53201  
(414) 229-5099

Additionally, inquiries about informed consent, the study itself, or your compensation can be made to [fearcenter@yahoo.com](mailto:fearcenter@yahoo.com) or (414) 229-3188. All inquiries are considered confidential.

### **Who do I contact for questions about my rights or complaints towards my treatment as a research subject?**

The Institutional Review Board may ask your name, but all complaints are kept in confidence.

Institutional Review Board  
Human Research Protection Program  
Department of University Safety and Assurances  
University of Wisconsin – Milwaukee  
P.O. Box 413  
Milwaukee, WI 53201  
(414) 229-3173

## 11. Signatures

### **Research Subject's Consent to Participate in Research:**

*To voluntarily agree to take part in this study, you must sign on the line below. If you choose to take part in this study, you may withdraw at any time. You are not giving up any of your legal rights by signing this form. Your signature below indicates that you have read or had read to you this entire consent form, including the risks and benefits, and have had all of your questions answered, and that you are 18 years of age or older.*

\_\_\_\_\_

Printed Name of Subject/ Legally Authorized Representative

\_\_\_\_\_

Signature of Subject/Legally Authorized Representative

\_\_\_\_\_

Date

### **Research Subject's Consent to Audio/Video/Photo Recording:**

This study does not audiotape, videotape or photograph individual subjects.

### **Principal Investigator (or Designee)**

*I have given this research subject information on the study that is accurate and sufficient for the subject to fully understand the nature, risks and benefits of the study.*

\_\_\_\_\_

Printed Name of Person Obtaining Consent

\_\_\_\_\_

Study Role

\_\_\_\_\_

Signature of Person Obtaining Consent

\_\_\_\_\_

Date



## APPENDIX B. Debriefing Questions

1. On a scale of 1-10 how upsetting was participating in this study (10 being awful and 1 being no problem).
2. What, if any, things about this study upset you?
3. Can you tell me why that was upsetting for you?

## APPENDIX C. Demographics &amp; Medication Use Questionnaire

Please answer the following questions.

1. What is your age? (18-30)
2. Do you speak fluent English? (Yes/No)
3. Where were you born? (State/Country)
4. What is your sexual orientation?
 

<input type="checkbox"/> Straight/Heterosexual	<input type="checkbox"/> Bisexual
<input type="checkbox"/> Gay	<input type="checkbox"/> Other (Please Specify)
5. What is your relationship status?
 

<input type="checkbox"/> Single	<input type="checkbox"/> Married
<input type="checkbox"/> Dating	<input type="checkbox"/> Common Law
<input type="checkbox"/> Engaged	<input type="checkbox"/> Divorced
<input type="checkbox"/> Widowed	
6. If you are currently in a relationship, please state the length of that relationship. (Years/Months)
7. How many children do you have?
8. What is your race/ethnic background (check all that apply):
 

<input type="checkbox"/> Black or African American	<input type="checkbox"/> Hispanic or Latino
<input type="checkbox"/> Asian or Pacific Islander	<input type="checkbox"/> Native American
<input type="checkbox"/> Asian American	<input type="checkbox"/> Middle Eastern Descent
<input type="checkbox"/> White or European American	<input type="checkbox"/> Other (Please Specify)
9. Are you currently employed at a paid job?
 

<input type="checkbox"/> Yes, full-time	<input type="checkbox"/> No, currently unemployed
<input type="checkbox"/> Yes, part-time	
10. How many years of schooling do you have?
11. Please indicate if you are currently taking any of the following medication:

Brand Name	Generic Name
Adalat	nifedipine
Adapin	doxepin
Aldactone	spironolactone
Aldomet	methyldopa
Altace	ramipril
Anafranil	clomipramine
Anaprox	naproxen
Apresoline	hydralazine
Artane	trihexyphenidyl
Asendin	amoxapine
Ativan	Lorazepam
Aventyl	nortriptyline
Axid	nizatadin
Bentyl Dicyclomine	dicyclorriine

Blocadren	timolol
Bumex	bumetanide
BuSpar	bupirone
Calan	verapamil
Capoten	captopril
Cardene	nicardipine
Cardizem	dilfiazem
Cardura	doxazosin
Cartrol	carteolol
Catapres	clonidine
Clozaril	clozapine
Cogentin	benztropine
Combipres	chlorthalidonelclonidine
Compazine	prochlorperazine
Corgard	nadolol
Cytotec	misoprostol
Danocrine	danazol
Depo-Provera	medroxyprogesterone
Desyrel	trazodone
Diamox	acetazolamide
Dibenzyline	phenoxybenzamine
Dilantin	phenytoin
Dipentum	olsalazine
Ditropan	oxybutynin
Diupres	chlorothiazide/reserpine
Diuril	chlorothiazide
Dolophine	methadone
Donnatal	phenobarbital/hyoscyamine/
Dopar	levodopa
Doral	quazepam
Dyazide	hydrochlorothiazide/triamterene
DynaCirc	isradipine
Elavil	amitriptyline
Eldepryl	selegiline
Endep	amitriptyline
Esidrix	hydrochlorothiazide
Esimil	guanethidine/hydrochlorothiazide
Eskalith	lithium
Ethmozine	morizine
Eulexin	flutamide
Folex	methotrexate
Halcion	triazolam

Haldol	haloperidol
Hydrodiuril	hydrochlorothiazide
Hylorel	guanadrel
Hytrin	terazosin
Inderal	propranolol
Inderide	propranolol hydrochlorochliazide
Ismelin	guanethidine
Isoptin	verapamil
Lanoxin	digoxin
Larodopa	levodopa
Librax	chlordiazepoxide/clidinium
Limbitrol	chlordiazepoxide/amitriptyline
Lithobid	lithium
Lopid	gemfibrozil
Lopressor	metoprolol
Lozol	indapamide
Ludiomil	maprotiline
Lupron	leuprolide
Marplan	isocarboxazid
Maxzide	hydrochlorothiazide/triamterene
Megace	megestrol
Mellaril	thioridazine
Minipress	prazosin
Moduretic	amiloride/hydrochlorothiazide
Monopril	fosinopril
Mysoline	primidone
Naprosyn	naproxen
Nardil	phenelzine
Navane	thiothixene
Nizoral	ketoconazole
Normodyne	labetalol
Normozide	labetalol/hydrochlorothiazide
Norpace	disopyramide
Norpramin	desipramine
Oretic	hydrochlorothiazide
Pamelor	nortriptyline
Parnate	tranlycypromine
Pepcid	famotidine
Pertofrane	desipramine
Plendil	felodipine
Prinivil	lisinopril
Pro-Banthine	propantheline

Procardia	nifedipine
Propecia	finasteride
Prolixin	fluphenazine
Provera	medroxyprogesterone
Prozac	fluoxetine
Reglan	metoclopramide
Rheumatrex	methotrexate
Robinul	glycopyrrolate
Rocaltrol	calcitriol
Serax	oxazepam
Serentil	mesoridazine
Sinemet	carbidopa/levodopa
Sinequan	doxepin
Stelazine	trifluoperazine
Tagamet	cimetidine
Tegretol	carbamazepine
Tenex	guanfacine
Tenormin	atenolol
Thorazine	chlorpromazine
Timoptic	timolol
Tofranil	imipramine
Trandate	labetalol
Valium	diazepam
Vasotec	enalapril
Verelan	verapamil
Visken	pindolol
Voltaren	diclofenac
Wellbutrin	bupropion
Xanax	alprazolam
Zantac	ranitidine
Zestril	lisinopril
Zoloft	sertraline

## APPENDIX D. Perceptions of Victim and Perpetrator

## Perceptions of Victim and Perpetrator

For the following items, use the scale below to indicate how much you agree with each statement:

1-----2-----3-----4-----5-----6-----7-----8-----9  
*Not* *Somewhat* *Completely or*  
*at all* *Totally*

1. How much do you think Jenny should blame herself for what happened?
2. How much do you think Dan should blame himself for what happened?
3. How much control do you think Jenny had over the situation?
4. How much control do you think Dan had over the situation?
5. How much do you agree Jenny should not have gone to Dan's apartment if she did not want to have sex with him?
6. Given the circumstances, how justified do you think Dan's actions were?
7. How much do you agree that Jenny should not have kissed Dan if she did not want to have sex with him?
8. Whose fault do you think it is that things turned out the way they did? (1 = *Dan*; 5 = *Jenny & Dan equally*; 9 = *Jenny*)
9. How much sympathy do you feel for Jenny?
10. How much sympathy do you feel for Dan?
11. Who do you feel more sympathy for? (1 = *Dan*; 5 = *Jenny & Dan equally*; 9 = *Jenny*)

### Appendix E. Sexual Experiences Survey – Short Form Perpetration (SES-SFP)

The following questions concern sexual experiences. We know that these are personal questions, so as a reminder your name and other identifying information will not be connected to your responses. Your information is completely confidential. We hope this helps you to feel comfortable answering each question honestly. Place a check mark in the box showing the number of times each experience has happened. If several experiences occurred on the same occasion--for example, if one night you told some lies and had sex with someone who was drunk, you would check both boxes a and c. The past 12 months refers to the past year going back from today. Since age 14 refers to your life starting on your 14<sup>th</sup> birthday and stopping one year ago from today. You may skip any questions you do not wish to answer or stop participating at any time.

Sexual Experiences	How many times in the past 12 months?	How many times since age 14?
	0 1 2 3+	0 1 2 3+
<b>1. I fondled, kissed, or rubbed up against the private areas of someone's body (lips, breast/chest, crotch or butt) or removed some of their clothes without their consent by:</b>		
a Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn't want to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
c Taking advantage when they were too drunk or out of it to stop what was happening.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
d Threatening to physically harm them or someone close to them.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
e Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>2. I had oral sex with someone or had someone perform oral sex on me without their consent by:</b>	0 1 2 3+	0 1 2 3+
a Telling lies, threatening to end the relationship, threatening to spread rumors about them, making promises about the future I knew were untrue, or continually verbally pressuring them after they said they didn't want to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
c Taking advantage when they were too drunk or out of it to stop what was happening.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
d Threatening to physically harm them or someone close to them.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
e Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>







## APPENDIX F. Sexual Experiences Survey – Short Form Victimization (SES-SFV)

The following questions concern sexual experiences that you may have had that were unwanted. We know that these are personal questions, so as a reminder your name and other identifying information will not be connected to your responses. Your information is completely confidential. We hope that this helps you to feel comfortable answering each question honestly. Place a check mark in the box showing the number of times each experience has happened to you. If several experiences occurred on the same occasion--for example, if one night someone told you some lies and had sex with you when you were drunk, you would check both boxes a and c. The past 12 months refers to the past year going back from today. Since age 14 refers to your life starting on your 14th birthday and stopping one year ago from today. You may skip any questions you do not wish to answer or stop participating at any time.

Sexual Experiences	How many times in the past 12 months?	How many times since age 14?
	0 1 2 3+	0 1 2 3+
<b>1. Someone fondled, kissed, or rubbed up against the private areas of my body (lips, breast/chest, crotch or butt) or removed some of my clothes without my consent by:</b>		
a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
d. Threatening to physically harm me or someone close to me.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>2. Someone had oral sex with me or made me have oral sex with them without my consent by:</b>		
a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
d. Threatening to physically harm me or someone close to me.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>



6. Even though it didn't happen, someone TRIED to make me put my penis or tried to make me stick my fingers or objects into their vagina without my consent by:	0	1	2	3+	0	1	2	3+
a Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Taking advantage of me when I was too drunk or out of it to stop what was happening.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Threatening to physically harm me or someone close to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Even though it didn't happen, someone TRIED to stick objects or fingers into my butt without my consent by:	0	1	2	3+	0	1	2	3+
a Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Taking advantage of me when I was too drunk or out of it to stop what was happening.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Threatening to physically harm me or someone close to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## APPENDIX G. Illinois Rape Myth Acceptance Scale

## Illinois Rape Myth Acceptance Scale

For the following items, use the scale below to indicate how much you agree with each statement:

1-----2-----3-----4-----5-----6-----7-----8-----9  
*Not at all* *Somewhat* *Very much*  
*agree* *agree* *agree*

1. If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.
2. Although most women wouldn't admit it, they generally find being physically forced into sex a real "turn-on."
3. If a woman is willing to "make out" with a guy, then it's no big deal if he goes a little further and has sex.
4. Many women secretly desire to be raped.
5. Most rapists are not caught by the police.
6. If a woman doesn't physically fight back, you can't really say that it was rape.
7. Men from nice middle-class homes almost never rape.
8. Rape accusations are often used as a way of getting back at men.
9. All women should have access to self-defense classes.
10. It is usually only women who dress suggestively that are raped.
11. If the rapist doesn't have a weapon, you really can't call it a rape.
12. Rape is unlikely to happen in the woman's own familiar neighborhood.
13. Women tend to exaggerate how much rape affects them.
14. A lot of women lead a man on and then they cry rape.
15. It is preferable that a female police officer conduct the questioning when a woman reports a rape.

16. A woman who “teases” men deserves anything that might happen.
17. When women are raped, it’s often because the way they said “no” was ambiguous.
18. Men don’t usually intend to force sex on a woman, but sometimes they get too sexually carried away.
19. A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex.
20. Rape happens when a man’s sex drive gets out of control.

## APPENDIX H. Marlowe-Crowne Social Desirability Scale

## Marlowe-Crowne Social Desirability Scale and Scoring Guide

## MCSDS

Listed below are a number of statements concerning personal attitudes and traits. Read each item and put an X through the "T" if the statement is True for you, or put an X through the "F" if the statement is False for you.

	<u>True</u>	<u>False</u>
1. Before voting I thoroughly investigated the qualifications of all the candidates.	T	F
2. I never hesitate to go out of my way to help someone in trouble.	T	F
3. It is sometimes hard for me to go on with my work if I am not encouraged.	T	F
4. I have never intensely disliked anyone.	T	F
5. On occasion I have had doubts about my ability to succeed in life.	T	F
6. I sometimes feel resentful when I don't get my way.	T	F
7. I am always careful about my manner of dress.	T	F
8. My table manners at home are as good as when I eat out in a restaurant.	T	F
9. If I could get into a movie without paying and be sure I was not seen, I probably would do it.	T	F
10. On a few occasions, I have given up doing something because I thought too little of my ability.	T	F
11. I like to gossip at times.	T	F
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.	T	F
13. No matter who I'm talk to, I'm always a good listener.	T	F
14. I can remember "playing sick" to get out of something.	T	F
15. There have been occasions when I took advantage of someone.	T	F
16. I'm always willing to admit it when I make a mistake.	T	F
17. I always try to practice what I preach.	T	F
18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.	T	F
19. I sometimes try to get even rather than forgive and forget.	T	F
20. When I don't know something I don't at all mind admitting it.	T	F
21. I am always courteous, even to people who are disagreeable.	T	F
22. At times I have really insisted on having things my own way.	T	F
23. There have been occasions when I felt like smashing things.	T	F
24. I would never think of letting someone else be punished for my wrongdoings.	T	F
25. I never resent being asked to return a favor.	T	F
26. I have never been irked when people expressed ideas very different from my own.	T	F
27. I never make a long trip without checking the safety of my car.	T	F
28. There have been times when I was quite jealous of the good fortunes of others.	T	F
29. I have almost never felt the urge to tell someone off.	T	F
30. I am sometimes irritated by people who ask favors of me.	T	F
31. I have never felt that I was punished without cause.	T	F
32. I sometimes think when people have a misfortune they only got what they deserved.	T	F
33. I have never deliberately said something that hurt someone's feelings.	T	F

## Scoring Guide

Attribution: Add 1 point if TRUE is marked for the following items:

1, 2, 4, 7, 8, 13, 16, 17, 18, 20, 21, 24, 25, 26, 27, 29, 31, 33

Denial: Add 1 point if FALSE is marked for the following items:

3, 5, 6, 9, 10, 11, 12, 14, 15, 19, 22, 23, 28, 30, 32





13 Homosexuals can be just as good at parenting as heterosexuals.	0	0	0	0	0	0
14 Gays and lesbians are just like everybody else.	0	0	0	0	0	0
15 Pick-ups should expect to put out.	0	0	0	0	0	0
16 If men pay for a date, they deserve something in return.	0	0	0	0	0	0
17 Effeminate men deserve to be ridiculed.	0	0	0	0	0	0
18 Any man who is a man needs to have sex regularly.	0	0	0	0	0	0
19 I believe some women lead happy lives without having male partners.	0	0	0	0	0	0

## APPENDIX J. Recent Physical and Sexual Activity Questionnaire

1. Did you engage in physical exercise in the last 24 hours? Yes or No
  - a. If yes, how many hours before coming into the laboratory did you exercise?
2. Did you engage in any form of sexual activity resulting in ejaculation in the last 24 hours (e.g. masturbation, oral sex, intercourse, etc.)?
  - a. If yes, how many hours before coming into the laboratory did you engage in a sexual activity?
3. Did you use any of the following substances in the last 24 hours? Please check all that apply.
  - Alcohol
  - Marijuana
  - Other recreational drug
  - I did not use any of these substances
4. Are you concerned over your ability to get sexually aroused? (Yes/No)
  - a. If yes, would you like a referral? (Yes/No)
5. Have you ever watched a sexually explicit video or movie? (Yes/No)

#### APPENDIX K. Debriefing Statement

Although the dialogue you heard in this study was designed to be realistic, we would like to emphasize that the depictions you encountered today were *not real*. You listened to an audio recording of an encounter which depicted a sexual assault. The story was performed by professional actors and was constructed specifically for laboratory research purposes. In reality, as you are likely aware, rape is a terrible crime and is prohibited by the law. Further, sexual assault victims often suffer psychological damage as well as the more obvious physical effects of the assault. Unfortunately, many people still believe many falsehoods or myths regarding sexual assault. For example, one totally unfounded myth is that if a woman does not immediately report a sexual assault, or hesitates to report it, then the act is somehow not considered an actual sexual assault. Another example of a myth is that any healthy woman can resist an assaulter if she wants to. A third myth about sexual assault is that if a woman does anything that may put her at greater risk or might make her more vulnerable to being victimized (for example, going to a man's apartment, wearing enticing clothing, etc.) she somehow brings the assault upon herself. These are all in fact completely false and unfounded myths. Hopefully, you will leave this experiment with a more realistic and accurate view of sexual assault and its effects. In the event that you or someone you know has experienced or been affected by sexual assault, the attached resource list may be of help.

Do you have any questions regarding your participation in this study? If you have any questions once you leave, reference your informed consent document for contact information.

## APPENDIX L. Descriptive Statistics of Study Measures

Table 7.

*Means and Standard Deviations of Study Measures*

		SES-SFP	SES-SFV	IRMAS-SF	MCSDS	Blame	Perception
<b>Neutral</b>	n	17	17	17	17	17	17
	<i>M</i>	1.59	.94	3.25	19.94	4.81	7.12
	<i>SD</i>	4.30	2.95	.91	2.4	.68	2.57
<b>Humor</b>	n	16	16	16	16	16	15
	<i>M</i>	.69	.50	2.87	18.88	4.63	8.20
	<i>SD</i>	2.50	1.75	.91	4.10	.67	1.42
<b>Erotic</b>	n	18	18	18	18	18	18
	<i>M</i>	1.00	4.72	2.83	19.17	4.88	7.78
	<i>SD</i>	1.94	14.16	.77	3.28	.72	1.96
<b>Total</b>	n	51	51	51	51	51	50
	<i>M</i>	.88	2.35	2.98	19.33	4.78	7.68
	<i>SD</i>	2.44	8.85	.86	3.28	.69	2.06

*Note.* SES-SFP= Sexual Experiences Survey – Short Form Perpetration, SES-SFV= Sexual Experiences Survey – Short Form Victimization, IRMAS-SF= The Illinois Rape Myth Acceptance Scale – Short Form, MCSDS= Crowne-Marlowe Social Desirability Scale, Blame= Measure of Victim and Perpetrator Blame, Perception= Perception of Sexual Aggression

Table 8.

*Intercorrelations among Study Measures*

	<b>SES-SFP</b>	<b>SES-SFV</b>	<b>IRMAS-SF</b>	<b>MCSDS</b>	<b>Blame</b>	<b>Perception</b>
<b>SES-SFP</b>	—	.20	.34*	.13	.16	-.25
<b>SES-SFV</b>		—	-.09	-.18	.13	-.51*
<b>IRMAS-SF</b>			—	.01	.47*	-.16
<b>MCSDS</b>				—	.31	.06
<b>Blame</b>					—	-.18
<b>Perception</b>						—

*Note.* SES-SFP= Sexual Experiences Survey – Short Form Perpetration, SES-SFV= Sexual Experiences Survey – Short Form Victimization, IRMAS-SF= The Illinois Rape Myth Acceptance Scale – Short Form, MCSDS= Crowne-Marlowe Social Desirability Scale, Blame= Measure of Victim and Perpetrator Blame, Perception= Perception of Sexual Aggression.

\*  $p < .01$