ABSTRACT

IMPACT OF SOCIAL INFLUENCES ON MEN AND WOMEN'S
RISK RECOGNITION OF SEXUAL ASSAULT

Mary Catherine Mercer, M.A.
Department of Psychology
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Michelle M. Lilly, Director

This thesis examines the impact of social influences on men and women's risk recognition of sexual assault. Participants completed the Marx and Gross audiotaped date-rape vignette and indicated if, and when, the man in the vignette should refrain from making further sexual advances. In order to examine the impact of social influences, participants completed the task alone or with an opposite sex confederate. Individuals that completed the task with an opposite sex confederate took much longer to make the risk recognition identification. Additional variables, including gender, sexual victimization and perpetration history, rape myth acceptance, social desirability, and physiological arousal, were examined within the social context of risk recognition.

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IMPACT OF SOCIAL INFLUENCES ON MEN AND WOMEN'S RISK RECOGNITION OF SEXUAL ASSAULT

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MARY CATHERINE MERCER

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Michelle M. Lilly

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CHAPTER 1

INTRODUCTION

Statement of the Problem

The prevalence of sexual assault is pervasive. Approximately 15-20% of women experience a rape or attempted rape at some point in their life (Brener, McMahon, Warren, & Douglas, 1999; Koss, Gidycz, & Wisniewski, 1987), and around 50% of college women experience some type of sexual victimization, including sexual coercion and/or unwanted sexual contact (Koss et al., 1987). Studies of both university and community samples reveal that the majority of rapes and sexual assaults are perpetrated by acquaintances and involve little or no physical injury (Brener et al., 1999; Tjaden & Thoennes, 2000).

Furthermore, there is an apparent discrepancy between women's reported experiences with sexual assault and men's awareness of perpetrating sexual aggression. Muehlenhard and Linton (1987) found 14.1% of women in their sample of college students had experienced forced sexual intercourse and 7.1% of men reported forcing sexual intercourse; Koss et al. (1987) found similar rates with about twice as many women reporting victimization than men reporting committing sexually aggressive behavior. Spitzberg (1999) concluded that the gap between reported perpetration and victimization could be due to either (a) men's failure to recognize

and/or report perpetration or (b) a few men are responsible for the substantial number of reported victimizations. However, Kolivas and Gross (2007) argue that the latter is unlikely because of methodological failures such that the wording of questions may not adequately capture men's sexual experiences. Furthermore, men may view nonconsensual sexual experiences as consensual. Taken together, these methodological flaws may lead to underreporting of perpetration. Because of the high rates of sexual assault, and the incongruent rates of reported victimization and perpetration, much attention has been devoted to understanding the mechanisms that perpetuate this form of violence.

It is important to note that both men and women are victims of sexual assault (Koss et al., 1987). However, women are more often the victims of sexual assault. Because it is likely that the etiology is different for female-perpetrated sexual assault, the current paper only reviews the male perpetration of female sexual assault.

Identification of risk factors for sexual assault victimization and perpetration is essential for prevention efforts. Both sexual assault victimization and perpetration have been found to be associated with individual and situational characteristics. Men, for example, are more likely to perpetrate sexual assault if they are accepting of violence toward women, hold hostile views of women, and have narcissistic personality traits (Lonsway & Fitzgerald, 1995; Malamuth, Linz, Heavey, Barnes, & Acker, 1995). Additionally, experiencing childhood abuse, having a history of adolescent delinquency, and having impersonal and promiscuous sex is associated with sexual assault perpetration (Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001; Malamuth, 1986; Malamuth et al., 1995).

Conversely, women are at higher risk for sexual assault victimization if they have a history of childhood sexual assault (e.g., Koss & Dinero, 1989) or have been previously

victimized (Gidycz, Hanson, & Layman, 1995; Koss & Dinero, 1989). A number of personality traits, such as assertiveness, have been shown to increase the likelihood of successfully resisting a sexual assault attempt (Amick & Calhoun, 1987). Additional variables, such as female sex role socialization (Muehlenhard & Hollabaugh, 1988), internalization of risk for sexual assault (Brown, Messman-Moore, Miller, & Stasser, 2005; Hickman & Muehlenhard, 1997), and prior perpetrator intimacy (VanZile-Tamsen, Testa, & Livingston, 2005) have also been shown to influence a woman's likelihood for being a victim of sexual assault. Specifically, adherence to female sex roles, or attitudes about women's familial, work, and social roles (Burt, 1980), has been found to be associated with increased risk for sexual assault victimization. Internalization of risk for sexual assault refers to the degree to which a person acknowledges their personal risk of victimization (see Gidycz et al., 2006 for a review). In general, women tend to recognize that sexual assault occurs, but often believe that they are at a lower risk than their peers. This failure to internalize risk has been associated with increased risk for sexual assault victimization (Brown et al., 2005; Hickman & Muehlenhard, 1997). Finally, women are less likely to perceive threat in a situation when the perpetrator is someone with whom they have had some level of prior sexual intimacy. Consequently, women are more likely to stay in risky situations longer when they are with someone of romantic or sexual interest (VanZile-Tamsen et al., 2005)

In addition to these individual risk factors for sexual assault perpetration and victimization, there are broader situational factors that influence risk. For example, perceptions of peer approval of sexual aggression increase men's likelihood of perpetrating sexual assault (Malamuth, Sockloskie, Koss, & Tanaka, 1991). Furthermore, Nurius and Norris (1995) proposed that women face conflict within their social and safety roles insofar that women must interact appropriately with potential dating partners while maintaining awareness of potential

threats for sexual assault from the dating partner. Additionally, both men and women are influenced by alcohol consumption in sexual assault perpetration and victimization (Abbey, McAuslan, & Ross, 1998; Koss et al., 1987; Norris, Nurius, & Graham, 1999). Steele and Josephs (1990) first introduced the concept of alcohol myopia, or "a state of shortsightedness in which superficially understood, immediate aspects of experiences have a disproportionate influence on behavior and emotion, a state in which we can see the tree, albeit more dimly, but miss the forest altogether" (p. 923). In other words, the effects of alcohol are moderated by what is of interest to the individual. In the context of sexual assault, a woman may refuse a man's sexual advances, but the man may only attend to the polite smile on her face and interpret it as an invitation for sexual contact.

It is also important to examine how the confluence of risk factors influences individual behavior. In other words, how does the combination of risk factors influence an individual's actions? One way to measure this effect is by examining how well individuals recognize that they are at risk for perpetrating or becoming a victim of sexual assault. This construct is known as risk recognition, or an individual's ability to recognize the potential risk for sexual assault in any given situation. The concept of risk recognition captures the influence of individual risk factors, such as history of sexual victimization or perpetration, and situational risk factors, such as alcohol consumption, in a process by which individuals come to realize the potential for sexual assault perpetration or victimization.

Risk Recognition

A variety of methods have been utilized to examine risk recognition, including written vignettes (Brown, Messman-Moore, Miller, & Stasser, 2005; Cue, George, & Norris, 1996; Foa, Feske, Murdock, Kozak, & McCarthy, 1991; Hoyt & Yeater, 2011; Messman-Moore & Brown, 2006; Nason & Yeater, 2012; Norris et al., 1999; Testa, Livingston, & Collins, 2000; VanZile-Tamsen et al., 2005; Yeater, McFall, & Viken, 2011; Yeater, Treat, Viken, & McFall, 2010) and audiotaped vignettes (Bernat, Calhoun, & Adams, 1999; Bernat, Stolp, Calhoun, & Adams, 1997; Faulkner, Kolts, & Hicks, 2008; Gross, Bennett, Sloan, Marx, & Juergens, 2001; Loiselle & Fuqua, 2007; Marx, Calhoun, Wilson, & Meyerson, 2001; Marx & Gross, 1995; Marx, Gross, & Adams, 1999; Marx, Gross, & Juergens, 1997; Marx & Soler-Baillo, 2005; Pumphrey-Gordon & Gross, 2007; Soler-Baillo, Marx, & Sloan, 2005; Wilson, Calhoun, & Bernat, 1999; Winslett & Gross, 2008) depicting a date rape interaction. Written vignettes depict a scene where an interaction becomes increasingly dangerous and a number of behaviors are present that could signal risk for sexual assault victimization. Methodologies differ in how risk recognition is measured and include: indicating when the respondent imagines she would feel uncomfortable in the scenario (Messman-Moore & Brown, 2006); rating the actions of the man as showing sexual interest or engaging in increasing degrees of sexual aggression (VanZile-Tamsen et al., 2005); completing the vignette (Testa et al., 2000); and reading and evaluating how risky the situation is (Norris, Nurius, & Dimeff, 1996; Yeater et al., 2010). Audiotaped vignettes depict a scene that begins with consensual sexual behavior and escalates to completed rape. A number of behaviors are present, such as coercion and pressure, to signal risk for victimization. Respondents are asked

to press a computer spacebar to indicate when the man should refrain from making further sexual advances.

While it is possible to capture a wider range of situational and relational variables in written vignettes, it is more difficult to determine when and how long it took participants to complete the risk recognition task. For example, it is possible that participants scanned the vignette, discovered the vignette ended in rape, and consequently indicated their risk recognition much earlier in the vignette. Additionally, scoring methods can be less precise and are inconsistent. For example, one method involves summing participant's responses to a number of risk assessment questions, with higher scores indicating more risk recognition (e.g., Norris et al., 1996; Yeater et al., 2010). Other methods include a word count before the identification was made (e.g., Messman-Moore & Brown, 2006). Most importantly, however, the psychometric properties of the aforementioned vignettes are unknown, and the vignettes have not been replicated without somewhat extensive manipulations. For the sake of cross-study generalizability, the current review only addresses findings from studies that have utilized the Marx and Gross (1995) audiotaped vignette.

The Marx and Gross (1995) vignette is an audiotaped recording of an interaction between a man and a woman engaged in sexual activity; the interaction begins with consensual sexual activity and escalates to completed rape. Participants are asked to stop the audiorecording when they believe that the man has "gone too far." The vignette consists of six distinct segments: consensual interaction; polite refusals by the woman; verbal refusals by the woman and apologies by the man; verbal pressure by the man and refusals by the woman; verbal threats by the man and adamant refusals by the woman; and forced sex by the man (see Table 1; Marx et al., 1999). Risk recognition is operationalized as response latency, or the length of time taken by

Table 1

Stimulus Segments

Segment	Time (s)	Tape content
I. Mutual interaction	0-82	Entrance and conversation about apartment Discussion of movie Mutual kissing
	67	F: "You really know how to show a girl a good time…Kiss me."
	77	M: "When I'm close to you like this, it drives me wild."
II. Polite refusals	83-97	
	87	M: "I like to touch your breasts."
	90	F: "Oh…Don't do that."
	97	M: "You really turn me on." Mutual kissing
III. Verbal refusals and apologies by the man	98-121	
	100	F: "I like it when you touch my chest, but not right now."
	108	M: "I'm sorry but you know that when I get close to you I just about lose control. I apologize – it won't happen again."
	111	F: "Now come here and kiss me." Mutual kissing
IV. Verbal pressure and refusals	122-182	
	103	F: "Haven't you been listening to me? I just got through telling you that I didn't want you touching my chest and now you go and touch my butt."
	142	F: "Don't you are what's important to me?"
	149	M: "I just want you so much."
	163	F: "No, not tonight. I don't want our relationship to be based only on sex."
V. Verbal threats and adamant refusals	183-246	
	186	F: "No…Get your hands out of my pants."
	195	M: "I might have to stop seeing you."
	208	F: "Please don't do this…I don't think you understand, but I don't want sex right now."
	229	F: "Don't be upset with me…I just think we should slow down."
	236	F: "Hold me and kiss me like this."
VI. Forced sex	247-296	
	253	M: "I'll have to hurt you."
	256	F: "Just stay away from me. Don't you dare touch me!"
	267	M: "One way or the other, you are going to give it to me!...You are going to have sex with me!"
VII. Rape ensues	271-296	Rape ensues

participants to indicate when the male in the vignette should refrain from making further sexual advances (Marx & Gross, 1995).

Findings from Studies Using the Marx and Gross (1995) Vignette

Men

Men's risk recognition for the potential to perpetrate sexual assault is influenced by a multitude of factors. Though research on how men typically recognize risk is limited, there are a number of factors that have been identified. More specifically, there are individual differences, such as a history of sexual aggression and acceptance of rape myths (RMA); social differences, including perceived amounts of and experience with token resistance; and situational factors, such as beliefs about alcohol and alcohol consumption that influence how men recognize risk. In general, research has shown that men may require clear messages that sexual advances are unwanted before stopping. Marx and colleagues (1999), for example, found that men tolerated polite, adamant, and forceful refusals by the woman before indicating that the man should stop his sexual advances. Specifically, the majority of participants neglected the woman's first three refusals. These findings indicate that pronounced inhibitory cues are necessary for men to discriminate what is sexually appropriate from what is inappropriate (Marx et al., 1999). In other words, men may continue to pursue sexual contact unless clearly expressed verbal and physical refusal cues are given.

Individual Factors

One individual difference of interest is a man's history with sexual aggression. Findings suggest that sexually aggressive men, which is typically defined as a self-reported history of engaging in sexually aggressive and/or coercive acts, take longer to complete the risk recognition task than do noncoercive men (Bernat, Calhoun, & Stolp, 1998; Gross et al., 2001; Marx & Gross, 1995; Marx et al., 1999, 1997), indicating poorer risk recognition. Bernat and colleagues (1998) found that sexually aggressive men, in comparison to nonaggressive men, were nearly six times more likely to allow the date rape interaction to escalate to the point when the man is attempting to remove the woman's pants, verbally threatening to hurt her, and she has begun yelling and crying for him to stop. In sum, sexually aggressive men are typically more accepting of the representation of force and sexual coercion presented in the audiotaped vignette. This acceptance may lead to longer response latency during the task, indicating that men with a history of sexual aggression may have a relative deficit in risk recognition for perpetration of sexual assault.

Another individual factor important in risk recognition is RMA, or "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women" (Lonsway & Fitzgerald, 1995, p. 134). RMA is related to other factors associated with sexual assault perpetration, including sex-role stereotyping, acceptance of interpersonal violence, and use of force to obtain sex (Burt, 1980). In the context of risk recognition for the perpetration of sexual assault, findings regarding the influence of RMA are mixed. For example, Marx and Gross (1995) found greater RMA was associated with longer response latencies, indicating that holding rape supportive cognitions attenuates risk

recognition abilities. Conversely, Marx and colleagues (1997) did not find an association between RMA and risk recognition and suggested factors of social desirability as potential mediators.

Social Factors

Social factors include cultural or familial values that influence how men and women perceive and interact in relationships. One such social factor is the belief that women offer token resistance to sex; in other words, the belief that women "say no to sex when they mean yes and that their protests are not to be taken seriously" (Muehlenhard & Hollabaugh, 1988, p. 872). This belief is founded on the traditional sexual script that outlines women's role as resisting sex and men's role as persisting in their sexual advances despite women's resistance efforts (Check & Malamuth, 1983).

Marx and Gross (1995) found that 58% of college men experienced what they perceived to be token resistance by women. Furthermore, individuals who reported experiencing perceived token resistance had poorer risk recognition; these men took longer to indicate that the man should refrain from making further sexual advances. In a second study, Marx et al. (1997) failed to replicate these previous findings. However, upon closer examination, they found that the trend was only present for men who had previously ignored what they perceived to be token resistance. In other words, men who continued sexual advances after experiencing perceived token resistance had poorer risk recognition. Given these findings, it is possible that the experience of perceived token resistance, persistence, and eventual sexual contact may reinforce neglecting

cues, consequently having a negative impact on risk recognition for perpetration (Marx & Gross, 1995).

Situational Factors

One situational difference in the detection of sexual assault perpetration risk involves both the consumption of alcohol and the expectation of consuming alcohol. College men and women typically attribute more blame to the victim of sexual assault when she is portrayed as consuming alcohol (Richardson & Campbell, 1982). Furthermore, men and women are more likely to view a sexual assault as consensual when the individuals involved are portrayed as drinking alcohol (Norris & Cubbins, 1992). Consistent with these findings, Bernat and colleagues (1998) found that men who were informed that the individuals in the vignette had consumed alcohol prior to completing the risk recognition task had significantly longer response latencies. Examination of simple effects revealed that sexually aggressive men seem to be particularly influenced by information about alcohol consumption when recognizing risk; nonaggressive men were not impacted by such information when completing the risk recognition task. The authors posited that information about "alcohol may disinhibit impulses toward sexual aggression, but perhaps only in men predisposed to committing such acts" (Bernat et al., 1998, p. 346).

Additionally, the physical consumption of alcohol, versus vignette portrayal of alcohol consumption, appears to influence risk recognition abilities. Risk recognition is hindered for men who consume alcohol or expect to consume alcohol (Gross et al., 2001; Marx et al., 1999, 1997). This effect is magnified for sexually aggressive men and provides additional evidence that

regardless of environment, sexually aggressive men may respond inappropriately or forcefully in certain situations because of a failure to recognize or attend to inhibitory cues. Interestingly, Marx et al. (1999) found that nonaggressive men that consumed alcohol prior to the risk recognition task had longer response latencies than nonaggressive men, and that these response latencies were similar to those of sexually aggressive men.

The Seto-Barbaree model of alcohol's role in sexual aggression (Seto & Barbaree, 1995) suggests that alcohol myopia (per Steele & Josephs, 1990) relaxes the standards for prosocial behavior and leads to sexual aggression; this is intensified when the woman is perceived to be sexually aroused or interested in sexual activity. These findings provide further support that alcohol may create an environment receptive to social permissiveness and conducive to ignoring inhibitory cues, regardless of sexual aggression history.

Women

Consistent with factors influencing men's ability to recognize risk for sexual aggression, many factors have been examined that influence women's risk recognition abilities for sexual victimization (see Gidycz, McNamara, & Edwards, 2006 for a review). Nurius and Norris (1995) proposed a cognitive ecological model of women's awareness of and response to the threat of sexual assault. This model maintains that risk recognition is a complex process where many variables are implicated, including individual, social, and situational variables.

Individual Factors

Prior sexual victimization. It has been hypothesized that victims of sexual assault, in comparison to nonvictims, possess a deficit in risk recognition abilities. However, support for this hypothesis has been inconclusive.

Upon examining revictimization in the context of risk recognition, an apparent relationship emerges. For example, Marx and colleagues' (2001) prospective study of risk recognition consisted of a baseline and a two-month follow-up period; the audiotaped vignette risk recognition task was completed at baseline and measures of sexual assault were administered at both time periods. Their findings revealed that women who were raped during the two months between baseline and follow-up displayed longer response latencies at baseline, indicative of poorer risk recognition. Similarly, Soler-Baillo et al. (2005) found that victims of sexual assault displayed significantly longer response latencies than did nonvictims. These findings are consistent with the Norris et al. (1999) finding that women who had previously experienced a sexual victimization needed a higher level of both clear and ambiguous factors to make a judgment that they were at risk for sexual assault. Clear risk factors include sexual comments, verbal persuasion, physical pressure while fondling, and male persistence. Ambiguous risk factors include the consumption of alcohol by the man and/or the woman and the degree of isolation during the encounter (Norris et al., 1999). In other words, these findings indicate that, regardless of the situational components and threat cues exhibited, victimized women tend to display a relative deficit in the ability to identify their risk for sexual assault.

Not all evidence, however, is supportive of this trend. Loiselle and Fuqua (2007) did not find significant differences in response latencies for sexually victimized and nonvictimized

women. Wilson et al. (1999) found that multiple-incident victimized women exhibited significantly longer response latencies than did single-incident or nonvictims; single-incident and nonvictims did not differ in response latencies. Additionally, Marx and Soler-Baillo (2005) examined risk recognition in acknowledged victims, unacknowledged victims, and nonvictims, with unacknowledged victims endorsing questions that met the legal definition of rape but failing to label their experience as rape. The researchers found that unacknowledged victims showed significantly longer response latencies than acknowledged victims and nonvictims, with acknowledged victims being aware of and labeling their experiences as sexual assault or rape and unacknowledged victims failing to label their experiences as sexual assault or rape.

Despite these findings, it is important to consider potential reasons for the inconsistencies in findings; some studies have found that risk recognition is related to having a history of sexual assault, but other studies have failed to establish this relation. Numerous methodological differences make it difficult to generalize across studies (Gidycz et al., 2006). First, as Messman-Moore and Brown (2006) discuss, the definition of sexual assault history has varied across studies. Those studies using a broad definition of victimization history (Cue et al., 1996) failed to find an association between victimization history and a deficit in risk recognition abilities. It is possible that the relationship exists only for victims of more severe assault, such as completed or attempted rape. Next, the method varied between audiotaped and written vignettes, and the operational definition of risk recognition was largely inconsistent. In sum, methodological differences make it difficult to draw conclusions regarding the relationship between prior sexual victimization and risk recognition.

Physiological arousal. Soler-Baillo et al. (2005) provided an interesting perspective on revictimization and risk recognition by examining physiological responses in the risk recognition

task. In essence, the authors suggested that risk recognition might be cued by physiological arousal. Furthermore, they proposed that physiological arousal might help explain some of the inconsistent findings regarding victimization and risk recognition abilities. The psychological coping of some victims of sexual assault, but not all, may hinder physiological arousal and consequently hinder risk recognition. For example, some victims may experience dissociative symptoms following an assault (Wilson et al., 1999), which, in turn, may hinder arousal and result in a deficit in risk recognition abilities. To examine this, Soler-Baillo et al. (2005) measured physiological responses via heart rate activity throughout the risk recognition task. Again, victims of sexual assault took significantly longer to identify risk in an audiotaped vignette, with risk recognition operationalized as response latency. Additionally, they found that nonvictims exhibited significantly more physiological reactivity than victims, especially in the earlier segments of the vignette. In other words, heart rate increased more for nonvictims during the part of the vignette where the interaction between the couple was still ambiguous. The authors argue that this period of ambiguity is most relevant to the risk recognition task; more attentional resources are needed to make the identification and safely exiting the interaction is still an accessible option. In sum, victims were slower than nonvictims at identifying risk and demonstrated attenuated heart rate activity during the critical risk recognition period of the vignette. This may indicate that the two processes, risk recognition and physiological arousal, are associated. In other words, if an individual does not experience bodily responses to threat cues, their ability to identify and react to the threat is diminished (Soler-Baillo et al., 2005). However, these findings have yet to be replicated. Consequently, the role of physiological arousal in risk recognition is not firmly established in the literature.

Psychopathology. Another variable that has received empirical investigation is the presence of psychopathology. In addition to physiological measures, Marx and Soler-Baillo (2005) added measures for posttraumatic stress disorder [PTSD] symptomatology. Results indicated greater PTSD symptomatology, especially re-experiencing, was related to better risk recognition in the response latency task. These findings may indicate that some of the arousal associated with PTSD may make participants more aware of their surroundings and potential threats. Or, the findings may suggest that the re-experiencing of an assault may make these participants particularly attuned to threat cues similar to their assault. Additionally, Wilson et al. (1999) found that, in an audiotaped date rape vignette, women with lower levels of PTSD symptomatology exhibited longer risk recognition latencies; those with higher levels of PTSD symptomatology demonstrated shorter response latencies. While these findings are an interesting foundation, much of the relationship between PTSD symptomatology and risk recognition is unclear. For example, previous research failed to examine specific symptom clusters. Additionally, different measures of PTSD symptomatology were used. In sum, further research is needed to better understand how the mechanisms of PTSD influence risk recognition.

Rape myth acceptance. There is limited research regarding the influence of RMA on women's ability to recognize risk for sexual victimization. What is available indicates that RMA is correlated with response latencies, indicating that greater acceptance of RMA is associated with decreased risk recognition abilities (Loiselle & Fuqua, 2007).

Social Factors

Women tend to recognize the occurrence of acquaintance and stranger sexual assault as a whole, but typically struggle to recognize and label personal experiences as sexual assault in an acquaintance situation (Hickman & Muehlenhard, 1997; Messman-Moore & Brown, 2006). In other words, women tend to recognize the global risk for sexual assault, but fail to internalize that risk to their personal lives. Additionally, verbal and physical resistance to sexual assaults tends to decrease as prior intimacy with a perpetrator increases (VanZile-Tamsen et al., 2005). Consistent with this, Faulkner et al. (2008) found that response latencies were longest when the man was depicted as a boyfriend of six months, versus a peer or teaching assistant, indicating that women may have decreased risk recognition abilities when the perpetrator is an intimate partner. Nurius and Norris' (1995) proposal of social and safety role conflict applies in this situation as well. In order to maintain relationships, pursue future potential romantic relationships, and meet social desirability demands, women may hesitate to identify risk with someone to whom they feel intimately attached. In other words, the social threat to identifying risk in a stranger rape situation is much less than the social threat involved in identifying risk in an acquaintance rape situation. Incorrectly identifying risk in an acquaintance rape situation may result in peer rejection and/or the loss of potential romantic relationship. In other words, accusing a date of intending to sexually assault is likely to create tension between the two individuals and possibly between peer groups.

Situational Factors

One situational factor, the consumption of alcohol, puts women at a particular disadvantage for recognizing risk. In fact, Gidycz et al. (2007) found that approximately 25% of perceived risk is directly attributable to alcohol use, such that drinking heavily and frequently may result in a decreased ability to perceive risk. Furthermore, their results indicate that women at the highest risk for sexual victimization were those with a history of victimization and heavy drinking (Gidycz et al., 2007). Additionally, Norris et al. (1999) found that women view alcohol as, at most, an ambiguous risk factor. Even though alcohol is the most commonly used agent involved in drug-facilitated sexual assault (Crawford, Wright, & Birchmeier, 2008), only approximately one fourth of college females perceive alcohol as a date-rape drug (Hertzog & Yeilding, 2009).

Within the context of risk recognition, Loiselle and Fuqua (2007) found that women who expected to consume alcohol or actually consumed alcohol had longer response latencies than women who did not expect to consume alcohol or did not consume alcohol; women that consumed alcohol had the longest response latencies. These findings indicate that women's ability to recognize risk for sexual assault is hindered when alcohol is consumed. Conversely, Pumphrey-Gordon and Gross (2007) found no significant differences in response latencies for women who consumed or expected to consume alcohol. Therefore, while the findings clearly show a relationship between male alcohol consumption and risk recognition abilities, the association is less clear for women and in need of future research.

Occurrence Within a Social Context

Prior research has focused on how men and women recognize risk for sexual assault perpetration and victimization while manipulating and/or controlling for individual and situational variables. However, sexual assault does not occur in solitude; sexual assault occurs in the context of two or more individuals' presence. Consequently, it is important to understand risk recognition within a social context.

There is reason to believe risk recognition and response abilities are different when social influences are taken into consideration. For example, Nurius and Norris (1995) propose that women face conflict within their social and safety roles such that women must interact appropriately with potential partners while maintaining awareness to potential threats from the partner. In fact, women's concerns over being rejected by a man have been found to negatively impact active resistance strategies (Norris et al., 1996). Furthermore, men's self-reported rape proclivity has been found to be influenced by peer reports of RMA, with higher reports of peer RMA associated with higher self-reported rape proclivity (Bohner, Siebler, & Schmelcher, 2006). However, few studies have examined how social influences impact risk recognition, and those that have fail to capture the essence of the construct; none has measured social influences using the Marx and Gross (1995) paradigm.

Previous Research Examining Social Impact

Hoyt and Yeater (2011) attempted to measure social impact by examining how manipulation of environmental context and relationship intimacy impacted men's hypothetical

responses to four written vignettes. Environmental context was either isolated or public; the hypothetical dating situation was described in an isolated or public environment. Similarly, relationship intimacy was dichotomous as well; the hypothetical dating situation was described as either intimate or nonintimate. Results indicated that both variables independently predicted sexually aggressive responses such that isolated environments and intimate relationships were associated with more sexually aggressive hypothetical responses.

In a similar study using women, Yeater et al. (2010) had women read several vignettes and judge how risky (high or low risk) the situation was for sexual assault and its potential impact to popularity. Popularity impact was manipulated by adding a phrase to the vignette containing information about "possible threats to the woman's popularity or social acceptance" (Yeater et al., 2010, p. 378). They found that women with more severe victimization histories relied more heavily on popularity impact information than did nonvictims when making ratings of how risky the hypothetical situation was.

As Gidycz and colleagues (2006) point out, "…these vignettes, which are purported to measure risk recognition, may not be capturing the true essence and complexities of real life social interactions" (p. 448). The studies by Hoyt and Yeater (2011) and Yeater and colleagues (2010) have addressed an important aspect of sexual assault perpetration and victimization that other studies have neglected to include. However, the manipulation of environment, intimacy, and popularity impact within a written vignette fail to capture the extent of social influence. In vivo social interactions are complex, making it very difficult to fully capture social influences in vignettes, particularly written vignettes. In fact, individuals tend to underestimate the extent to which they are influenced by the presence of others (i.e., social influence; Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008). Consequently, imagining interacting with a person

and actually interacting with a person can result in very different behaviors. Thus, vignettes that attempt to capture social influence by manipulating environment and intimacy are not likely encompassing the extent to which individuals are impacted by social influence.

Social influence, or "changes in physiological states and subjective feelings, motives and emotions, cognitions and beliefs, values and behavior, that occur in an individual, human or animal, as a result of the real, implied, or imagined presence or actions of other individuals" (Latané, 1981, p. 343), has been shown to have tremendous effects on an individual. For example, Asch's (1955) studies on social influence demonstrated the effects of group pressure on individual behavior. In his research, one participant was present in a room with six to eight confederates. They were shown two cards, one bearing one line and the other bearing three lines. The task of the participants was to identify which of the three lines was the same length as the line on the other card. Without the presence of others, participants made incorrect identifications less than one percent of the time. However, after several trials of confederates unanimously choosing the incorrect answer, the rate of participants' incorrect identifications rose to 36.8%. These findings demonstrated that social influence can sway individuals to pick a clearly incorrect answer. Furthermore, Asch pointed out all participants underestimated the extent to which they were influenced by the confederates' answers.

Less research has been conducted to directly measure social influence within the context of sexual assault perpetration and victimization, and no studies have been conducted that measure risk recognition. Apanovitch, Hobfoll, and Salovey (2002) had college students watch a sexually violent film and then engage in a discussion group regarding the film. One confederate was present in each discussion group and contributed thoughts regarding (a) the men's responsibility, (b) the women's responsibility, or (c) neutral responsibility, with neither the man

nor the woman holding responsibility. Participants were swayed in their private judgments of responsibility based on which group they attended. Participants in the men-responsible group reported more perpetrator responsibility. However, participants in the woman-responsible and neutral-responsibility groups were not significantly swayed in their judgments of responsibility. These findings indicate that, when making judgments regarding responsibility for rape, social influence can impact private thoughts as well as public voicing.

Norris (1991) sought to examine the impact of normative information on sexual arousal and positive affect after reading a date rape vignette. Upon arrival, participants were informed that their peers were either highly aroused or not at all aroused by the vignettes. Participants were then given one of two vignettes, both ending in rape. One vignette depicted the woman initially resisting but giving in and expressing pleasure; the other vignette depicted the woman as distressed throughout. The social influence message was effective in changing arousal and affect, regardless of story condition. When participants were told that their peers found the story highly arousing, they reported higher levels of both sexual arousal and positive affect. However, when participants were told that their peers found the story not at all arousing, they reported lower levels of sexual arousal and less positive affect. These findings indicate that social influence may have a greater impact on sexual arousal and affect than does the vignette's outcome of pleasure or distress.

The study by Norris (1991) demonstrated that sexual arousal can be impacted by social influence, and the study by Apanovitch et al. (2002) demonstrated that judgments of responsibility in a rape depiction can be impacted by group influence. When taken into consideration with the findings by Hoyt and Yeater (2011) and Yeater and colleagues (2010), which addressed how risk recognition may be influenced by environment, intimacy, and

popularity impact, the direction for future research becomes more apparent. Because sexual assault occurs in a social context and the tremendous effects that social influence has on individuals' decision making, the paucity of research examining the two is reason for concern. It is imperative that additional research be conducted to gain further understanding of how individuals recognize risk within the context of social influence.

The Current Study

Prior research has attempted to capture social impact by manipulating information, such as prior intimacy and popularity impact, in written vignettes (Hoyt & Yeater, 2011; Yeater et al., 2010). However, these manipulations do not accurately capture the influence of social variables. Consequently, conclusions and implications drawn regarding these manipulations may not be fully warranted. Furthermore, studies on risk recognition have isolated the task by having participants complete it alone or by means of self-report measures. However, individuals have not been required to identify the risk for sexual assault perpetration or victimization in the presence of others. True risk recognition occurs within a social context because sexual assault perpetration and victimization occurs within a social context. It is currently unknown the extent to which individuals rely on information they are gathering from their social environment when making risk judgments. It is therefore important to measure risk recognition within the context in which sexual assault most commonly occurs: with two people present. Consequently, the current study will attempt to capture this interaction by having another person of the opposite sex (a confederate) present while participants complete a risk recognition task.

In addition to examining risk recognition in a social context, the current study will attempt to replicate and expand on the findings of Soler-Baillo et al. (2005) and Marx and Soler-Baillo (2005) by adding physiological measures of heart rate and pulse. Previous findings indicate that women may experience physiological arousal when identifying risk. However, it is unclear if men experience the same physiological arousal. Furthermore, as Gidycz and colleagues (2006) discuss, risk recognition cannot be conceptualized as a discrete point in time where individuals transition from being unaware to aware of the threat of sexual assault victimization or perpetration. Instead, it is likely that risk recognition is best conceptualized as a dimensional process that entails varying levels of risk awareness culminating in a risk recognition behavior. This process of identifying threat likely engages the body's sympathetic nervous system in order to prepare the body for response. Consequently, the current study will attempt to capture this process by examining physiological arousal throughout the risk recognition task.

Hypotheses

Hypothesis 1

Men and women are expected to differ in their abilities to recognize risk, such that women will display faster response latencies than men. The dependent variable will be risk recognition, as measured by response latency, and the independent variable will be gender.

Hypothesis 2

The presence of another individual during the risk recognition task is expected to increase response latencies. The dependent variable will be risk recognition, and the independent variable will be presence or absence of another person of the opposite sex.

Hypothesis 3

An interaction is expected between gender and social impact, such that men and women are expected to respond differently to the presence of another person during the risk recognition task. A relationship is expected between social impact and risk recognition, and this relationship is expected to be different for men and women. Women are expected to be most influenced by the presence of another person when completing the risk recognition task, thus taking longer to complete the task. The dependent variable will be risk recognition, and the independent variables will be gender and presence or absence of another person of the opposite sex.

Hypothesis 4

Sexual victimization history is expected to impact women's response latencies, such that the presence of a sexual victimization history is expected to result in longer response latencies. The dependent variable will be risk recognition, and the independent variable will be sexual victimization history.

Hypothesis 5

An interaction is expected between sexual victimization history and social impact, such that victims of sexual assault will be most impacted by the presence of another individual. A relationship is expected between social impact and risk recognition, and this relationship is expected to be different for victims and nonvictims. Victims of sexual assault are expected to be most influenced by the presence of another person, thus taking longer to complete the risk recognition task. The dependent variable will be risk recognition, and the independent variables will be sexual victimization history and presence or absence of another person of the opposite sex.

Hypothesis 6

Sexual aggression history is expected to impact men's response latencies, such that men with a history of sexual aggression are expected to have longer response latencies. The dependent variable will be risk recognition, and the independent variable will be sexual aggression history.

Hypothesis 7

An interaction is expected between sexual coercion history and social impact, such that sexually aggressive men will respond differently than nonaggressive men to the presence of another individual. A relationship is expected between social impact and risk recognition, and

this relationship is expected to differ for sexually coercive and noncoercive men. Noncoercive men, when in the presence of another person, are expected to complete the risk recognition task faster. The dependent variable will be risk recognition, and the independent variable will be sexual aggression history and presence or absence of another person of the opposite sex.

Hypothesis 8

Differences are expected for individuals who endorse desiring social acceptance. The dependent variable will be risk recognition, and the independent variable will be agreeableness.

Hypothesis 9

An interaction is expected between social desirability and social impact, such that the presence of another individual will have a larger impact on the response latencies of individuals endorsing a desire for social acceptance. A relationship is expected between social impact and risk recognition, and this relationship is expected to be different for individuals that endorse social desirability. Individuals that endorse greater social desirability are expected to complete the risk recognition task faster when in the presence of another person. The dependent variable will be risk recognition, and the independent variables will be agreeableness and the presence or absence of another person of the opposite sex.

Hypothesis 10

RMA is expected to influence risk recognition, such that individuals endorsing higher levels of RMA are expected to display longer response latencies. The dependent variable will be risk recognition, and the independent variable will be RMA.

Hypothesis 11

An interaction is expected between RMA and social impact, such that individuals' RMA is expected to influence how they respond to the presence of another person of the opposite sex. Individuals endorsing less RMA are expected to take longer to complete the risk recognition task when in the presence of another person. The dependent variable will be risk recognition, and the independent variables will be RMA and the presence or absence of another person of the opposite sex.

Hypothesis 12

It is expected that heart rate will gradually increase throughout the duration of the task, peaking just before recognition of risk. The dependent variable will be heart rate, and the independent variable will be segment.

Hypothesis 13

An interaction is expected between heart rate reactivity and gender, such that men and women will experience different levels of heart rate reactivity during the task. Women will experience a greater increase in heart rate from the baseline than men during the task. The dependent variable will be risk recognition, and the independent variables will be heart rate reactivity and gender.

CHAPTER 2

METHOD

Participants

Participants were 124 undergraduate students from a large university in northern Illinois; 65 participants were male and 59 participants were female. Participants were recruited through undergraduate psychology courses and were offered research participation credit. Participants were screened for heterosexuality and age; only participants over the age of 18 were allowed to participate. Screening and scheduling was completed via the SONA system. There were 55 participants in the alone condition (27 males, 28 females) and there were 69 participants in the social condition (38 males, 31 females). The mean age was 19.66 (SD = 2.22). Most participants were freshmen or sophomores (87.1%). Most participants identified as Caucasian (50%), African American (25%), or Latino (12.1%).

Measures

Risk Recognition

Risk recognition served as the dependent measure and was operationalized as response latency, or the length of time taken by participants to determine when the male in the audiotaped date-rape vignette should refrain from making further sexual advances (Marx & Gross, 1995). Response latencies were recorded in seconds, with longer response latencies indicative of poorer risk recognition.

Bernat and colleagues (1997) examined the construct validity of the Marx and Gross (1995) audiotaped date-rape vignette. Using a sample of undergraduate male students, the audiotaped vignette was significantly correlated with frequency of sexually aggressive behavior (r = .39), calloused sexual beliefs (r = .38), acceptance of interpersonal violence (r = .20), and sexual promiscuity (r = .23). These findings generally suggest that the response latency measure accurately captures attitudinal and behavioral predictors of sexual aggression. The construct validity of the stimulus has not been examined specifically in women. A test-retest reliability of .87 was demonstrated over a 2-week interval for undergraduate male students, suggesting that the response latency measure yields reasonably stable responses over time.

Rape Myth Acceptance

Rape myth acceptance (RMA) was measured using the Illinois Rape Myth Acceptance (IRMA) scale (Payne, Lonsway, & Fitzgerald, 1999). The IRMA is a 45-item self-report

questionnaire that measures participants' endorsement of rape myths, or "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women" (Lonsway & Fitzgerald, 1995, p. 134). Participants indicate the degree to which they agree or disagree with a statement on a 7-point scale from 1 (*not at all agree*) to 7 (*very much agree*). All responses were summed to create a total RMA score, with higher scores indicating greater RMA.

Payne and colleagues (1999) demonstrated good internal consistency for the IRMA total score (Cronbach's alpha = .93) and its subscales (average Cronbach's alpha = .79) using a sample of undergraduate students. This suggests that the items on the IRMA are internally consistent. Payne et al. (1999) also demonstrated construct validity by establishing the IRMA to be significantly related to Burt's (1980) measures of attitudinal support for sexual violence, including sex role stereotyping (r = .55), adversarial sexual beliefs (r = .74), hostility toward women (r = .57), and attitudes toward violence (r = .71). For the current sample, the internal consistency was adequate for the total score (r = .79) and its subscales (average Cronbach's alpha = .72).

Sexual History

Female sexual victimization history and male sexual coercion history was measured with the Revised Sexual Experiences Survey (SES-R; Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, et al., 2007). Sexual victimization was assessed using the Sexual Experiences Short Form Victimization (SES-SFV; Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, et al., 2006a), and sexual perpetration was assessed using the Sexual Experiences Short Form

Perpetration (SES-SFP; Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, et al., 2006b). Both versions of the SES-R are 10-item self-report questionnaires that contain behaviorally specific items depicting increasing levels of sexual aggression. Experiences include unwanted sexual contact, attempted sexual intercourse, and completed sexual intercourse; each of these experiences is examined within the context of verbal or physical pressure, alcohol or drugs, and power of authority. The wording is ambiguous so that either gender could complete both forms. For the purposes of the current study, both men and women completed the both the SES-SFV and the SES-SFP. Participants indicated how many times (i.e., "0", "1", "2", or "3+" times) they have experienced each response within the past 12 months and since the age of 14.

Reliability and validity have not been established for the SES-R. However, given that the SES-R is mild modification of the wording in the original Sexual Experiences Survey (SES; Koss & Gidycz, 1985), it is relevant to discuss these findings. Koss and Gidycz (1985) demonstrated good internal consistency for the SES using a sample of undergraduate men (Cronbach's alpha = .89) and women (Cronbach's alpha = .74), indicating that items on the SES are related in measuring the construct. Strong test-retest reliability of .93 was demonstrated over a one-week interval for undergraduate men and women. This suggests that the SES results in reasonably stable responses over time.

Validity data was collected through paper administration of the SES and a follow-up interview administration of the SES (Koss & Gidycz, 1985). Women's paper and interview responses were significantly related (r = .73); 16% of the changes were due to the move to a less severe categorization of victimization (16%) or a more severe categorization of victimization (7.5%). Three percent of women who indicated they were rape victims on paper failed to do so during the interview. Men's paper and interview responses were significantly related (r = .61).;

changes in responses were due to the move to a less severe categorization of sexual aggression (34%) and denial of any sexually aggressive behavior in the interview (22%).

Social Desirability

In order to examine stable characteristics indicative of social desirability, the Mini-Markers-40 (MM-40; Saucier, 1994) was used; specifically, subscales of Agreeableness and Conscientiousness were examined. The MM-40 is a 40 item self-report measure designed to capture participant's Big-Five factor structure. Participants indicated the degree to which they agree or disagree with an adjective in describing themselves, where "1" means *extremely inaccurate* and "9" means *extremely accurate*. Subscale responses were summed and divided by the number of items per subscale to create subscale scores. Example items include: "disorganized", "envious", "practical", and "bold."

Saucier (1994) used a sample of undergraduate students to measure the internal consistency of the MM-40. Alpha coefficients ranged from .78 to .83, indicating homogeneity within subscales and acceptable internal consistency. Because the MM-40 is a shorter measure derived from Goldberg's (1992) marker scales, there is a loss of reliability. This loss of reliability is demonstrated though a decrease in interscale correlations (r = .35 versus r = .27, respectively). The alpha coefficients for the current study ranged from .68 to .73, indicating adequate internal consistency for the current sample.

Stimulus

The stimulus material for the current study was the Marx and Gross (1995) audiotaped date-rape vignette. The vignette is an audiotaped recording of an interaction between a man and a woman engaged in sexual activity. Physical intimacy is demonstrated through kissing and breathing sounds and further illustrated through dialogue. The interaction consists of consensual interaction (0-82 seconds); polite refusals (83-97 seconds); verbal refusals and apologies by the man (92-121 seconds); verbal pressure and refusals (122-182 seconds); verbal threats and adamant refusals (183-246 seconds); and forced sex (247-296 seconds) (Marx et al., 1999). The total running time of the audiotape is 296 seconds.

Physiological Measures

Heart rate activity (HR) was measured because of its sensitivity to arousal and threat responses associated with sympathetic nervous system arousal. Heart rate was collected using the Polar USA RS800CX system. The chest band was attached upon arrival to the experiment and left on throughout the session.

Manipulation

Social impact was measured by the presence or absence of a confederate participant of the opposite sex. Participants in the no confederate condition completed the risk recognition task alone. Confederate participants were treated as if they were participating in the study;

confederates waited with the participant before starting, received the same instructions from the experimenter, and engaged in all aspects of the study (e.g., wore the heart rate monitor, filled out paperwork). There was one male confederate and four female confederates. The confederate participant sat side-by-side with the participant, faced the computer, and listened to the audiotaped date-rape vignette over computer speakers (Marx & Gross, 1995). Oral instructions asked the participants to indicate when the man should stop making sexual advances. However, the confederate made no such indication until after the participant had made his or her indication. The presence of a confederate participant made the risk recognition task an interactive process, thus attempting to examine the social impact on risk recognition of sexual assault.

CHAPTER 3

PROCEDURE

Participants were run individually. Upon arrival for the experimental session, the participant was invited to read and sign the informed consent document and was given the opportunity to discuss questions and/or concerns (see Appendix A). At this point, the chest strap was attached and heart rate data collection began. The participant was told to please wait while the study is being set up, and the experimenter left the participant alone for five minutes in order to establish a baseline heart rate.

For the social impact condition, a participant and an opposite-sex confederate were escorted to the experiment room. The experiment room consisted of two chairs facing a desk with one computer and one keyboard. The participant and confederate participant were seated facing the computer. The participant and confederate participant were read the following instructions aloud (see Marx & Gross, 1995; Marx et al., 1999; Winslett & Gross, 2008):

> You will be listening to an audio recording of a sexual interaction between two college students who have just returned to the man's apartment after a date. They have just returned from the movies. This is their second date. Your task is to listen to the recording and signal, by pressing the space bar/ALT key in front of you, if and when the man should refrain from making further sexual advances. Regardless of whether and/or when you decide to press the button or not, you will continue to listen to the entire interaction until the recording is finished. If you decide that you do not wish to listen to the entire

> recording, you may press the keyboard's "Q" key and signal the experimenter. This task is to be done silently, please do not talk to one another once it begins.

After the participant indicated understanding the instructions, the experimenter instructed the participant and the confederate participant how to start the recording. The experimenter then left the room, closing the door behind him/her, and watched from a one-way mirror. The participant or the confederate participant pressed the keyboard's spacebar to start the recording. The confederate participant pressed the ALT key after the participant pressed the space bar; this indication was not recorded by the software.

Upon completion of the risk recognition task, the participant and the confederate participant were escorted to separate rooms. Participants were asked to complete the following questionnaires: a demographics questionnaire (see Appendix B); the Sexual Experiences Short Form Victimization (SES-SFV; Koss et al., 2006a; see Appendix C); the Sexual Experiences Short Form Perpetration (SES-SFP; Koss et al., 2006b; see Appendix D); the IRMA (Payne et al., 1999; see Appendix E); and the MM-40 (Saucier, 1994; see Appendix F).

Following the completion of the questionnaires, an oral manipulation check was administered to determine suspicion regarding the confederate's presence. Participants were asked what they thought the purpose of the study was and what they thought about the other participant's (i.e., the confederate's) behavior. Participants were then provided with a modified copy of the Malamuth and Check (1984) debriefing statement (see Appendix G). This statement discusses the definition and prevalence of sexual assault on college campuses and provides evidence about common rape myths. The experimenter reviewed this information with the participant and answered any questions the participant had. Participants were also informed of the deception used in the study in the form of the confederate participant. The experimenter

explained the need for such deception and discussed any concerns the participant had, as well as informed the participant that they may withdraw their data. Finally, the participant was given a list of resources available within the community, thanked, and dismissed.

The current study was a 2X2 design with gender (male, female) and social influence (presence of opposite sex confederate, absence of opposite sex confederate) as the independent variables. The dependent variable was risk recognition, measured as response latency in seconds, or the length of time taken to indicate if and when the man in the interaction should refrain from making further sexual advances.

CHAPTER 4

RESULTS

The data were first cleaned and prepared for analysis. Variables were recoded and transformed to account for skewness. Because all participants completed the risk recognition task, none were removed due to lack of task completion. Nine individuals were removed from further analysis due to behaviors observed during the experiment. Specifically, participants that failed to understand the directions or randomly responded to questionnaires were removed from further analysis. No participants reported suspecting the confederate's role in the study. The resulting sample consisted of a total of 124 individuals (65 males, 59 females), with 55 participants (27 males, 28 females) in the alone condition and 69 participants (38 males, 31 females) in the social condition.

In order to determine if assumptions for statistical tests were met, a histogram of the response latency data was examined to determine if it was normally distributed (see Figure 1). The data (M = 141.94, SD = 71.23) display a positively skewed distribution (skewness = .89, standard error = .27). The response latency data were transformed to account for the skewed distribution; the transformed variable was used in the following analyses.

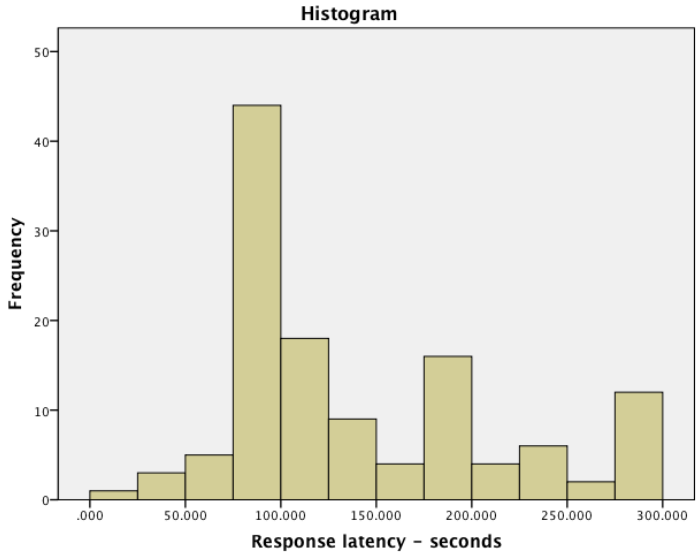

Figure 1. Histogram of response latency data.

One-way analyses of variance (ANOVA) tests were run to determine if experimental groups differed. There were no differences for gender (F = .43, p = .512), race (F = 1.69, p = .196), prior sexual victimization (F = .35, p = .558), and prior sexual coercion histories (F = .572, p = .451).

To prepare the heart rate data for analysis, five segments of the stimulus were extracted using the Kubios Heart Rate Variability Analysis Software (Tarvainen, Niskanen, Lipponen, Ranta-Aho, & Karjalainen, 2014). Each segment contained (a) coercive behavior by the man, (b) inhibitory cues by the woman, or (c) both. This allowed for the analysis of physiological arousal in the context of threat cues, and is similar to the data analytic plan proposed by Marx and Soler-Baillo (2005) and Soler-Baillo and colleagues (2005). Refer to Table 2 for exemplars of the segments used (Marx & Soler-Baillo, 2005). The mean beats per minute was calculated for a total of 7 samples: 2 minutes of the baseline period, for each of the 5 stimulus segments, and for

a 9 minute follow-up period. To examine heart rate reactivity to the vignette, change scores were calculated by subtracting the mean segment heart rate from the baseline heart rate.

Refer to Tables 3-5 for descriptive statistics and frequencies for the study variables.

Hypothesis 1

In order to determine if men and women differed in their response latencies regardless of social condition, an independent samples *t* test was run. The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. The independent variable was gender; it had two levels: male and female. Men (M = 154.33 seconds, SD = 75.64 seconds) took significantly longer than women (M = 128.29 seconds, SD = 63.91 seconds) to indicate that the man in the audio-tape should refrain from making further sexual advances, $t(122) = 2.06$, $p = .042$.

Hypothesis 2

An independent samples *t* test was run to examine whether the presence of another individual influenced participants' response latencies. The independent variable was social impact; it had two levels: social and alone. The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. Regardless of gender, participants in the social condition (M = 165.30, SD = 72.63) took significantly longer than participants in the alone condition (M = 112.63, SD = 57.79) to indicate

Table 2

Stimulus Segments Used in Data Analysis

Segment	Time (s)	Tape content
I. Mutual interaction	0-82	Entrance and conversation about apartment Discussion of movie Mutual kissing
	67	F: "You really know how to show a girl a good time…Kiss me."
	77	M: "When I'm close to you like this, it drives me wild."
II. Verbal refusals and apologies by the man	83-121	
	87	M: "I like to touch your breasts."
	90	F: "Oh…Don't do that."
	97	M: "You really turn me on." Mutual kissing
	100	F: "I like it when you touch my chest, but not right now."
	108	M: "I'm sorry but you know that when I get close to you I just about lose control. I apologize – it won't happen again."
	111	F: "Now come here and kiss me." Mutual kissing
III. Verbal pressure and refusals	122-182	
	103	F: "Haven't you been listening to me? I just got through telling you that I didn't want you touching my chest and now you go and touch my butt."
	142	F: "Don't you care what's important to me?"
	149	M: "I just want you so much."
	163	F: "No, not tonight. I don't want our relationship to be based only on sex."
IV. Verbal threats and adamant refusals	183-246	
	186	F: "No…Get your hands out of my pants."
	195	M: "I might have to stop seeing you."
	208	F: "Please don't do this…I don't think you understand, but I don't want sex right now."
	229	F: "Don't be upset with me…I just think we should slow down."
	236	F: "Hold me and kiss me like this."
V. Forced sex	247-296	
	253	M: "I'll have to hurt you."
	256	F: "Just stay away from me. Don't you dare touch me!"
	267	M: "One way or the other, you are going to give it to me!...You are going to have sex with me!"
	271-296	Rape ensues

Table 3

Descriptive Statistics for Study Variables

	Total		Male		Female			
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*t*	*p*
Response latency	151.48	104.18	171.06	125.61	129.91	68.57	2.32	.02
MM40: Agreeableness	7.16	1.01	7.06	1.10	7.27	.89	-1.14	.26
IRMA	94.44	31.14	103.69	31.85	84.24	27.12	3.64	<.001

Table 4

Victimization Frequencies for the Total Sample and by Gender

	Total	Male	Female
Nonvictim	68	44	24
Sexual contact victim	11	6	5
Attempted coercion victim	11	4	7
Coercion victim	7	5	2
Attempted rape victim	8	3	5
Rape victim	19	3	16

Table 5

Perpetration Frequencies for the Total Sample and by Gender

	Total	Male	Female
Nonperpetrator	97	44	53
Sexual contact perpetrator	4	3	1
Attempted coercion perpetrator	4	4	0
Coercion perpetrator	9	8	1
Attempted rape perpetrator	3	2	1
Rape perpetrator	7	4	3

that the man in the audio-tape should refrain from making further sexual advances, $t(122) = -4.38$, $p < .001$.

Hypothesis 3

In order to examine if there was an interaction between gender and social impact, a moderation analysis using the PROCESS macro (Hayes, 2013) was run. The independent variables were gender (male, female) and social impact (social, alone). The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. The interaction term did not explain a significant increase in variance in response latency, $\Delta R^2 = .004$, $F(1, 120) = .59$, $p = .44$. Thus, social impact did not moderate the relationship between gender and response latency and the hypothesis was unsupported (see Table 6).

Table 6

Linear Model of Social Group and Gender as Predictors of Response Latency

	b	*SE B*	*t*	*p*
Constant	119.14	12.67	9.40	<.001
Social group	60.19	16.57	3.63	<.001
Gender	-12.78	17.76	-.72	.047
Social x gender	-18.44	23.86	-.77	.44

Hypothesis 4

In order to examine if sexual victimization history had an impact on males' and females' response latencies, an independent samples *t* test was run. The independent variable was sexual victimization history; it had two levels: yes and no. The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. Nonvictims (M = 138.51, SD = 67.99) did not differ significantly than victims (M = 146.10, SD = 75.39) in the time it took to identify when the man in the audiotaped should refrain from making further sexual advances, $t(122) = -.59$, $p = .56$.

Hypothesis 5

In order to examine if there was an interaction between sexual victimization history and social impact, a moderation analysis using the PROCESS macro (Hayes, 2013) was run. The independent variables were sexual victimization history (yes, no) and social impact (social, alone). The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. The interaction term did not explain a significant increase in variance in response latency, $\Delta R^2 = .002$, $F(1, 120) = .28$, $p = .59$. Thus, social impact did not moderate the relationship between sexual victimization history and response latency (refer to Table 7).

Table 7

Linear Model of Social Group and Victimization History as Predictors of Response Latency

	b	*SE B*	*t*	*p*
Constant	107.58	11.23	9.54	<.001
Social group	57.18	15.18	3.77	<.001
Victimization history	3.75	5.03	.75	.46
Social x Victim	-3.40	6.43	-.53	.59

Hypothesis 6

In order to examine if men's and women's sexual perpetration history had an impact on participants' response latencies, an independent samples *t* test was run. The independent variable was sexual perpetration history; it had two levels: yes and no. The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. Consistent with predictions and previous research, perpetrators (M = 166.59, SD = 77.36) took significantly longer than nonperpetrators (M = 135.09, SD = 68.28) to indicate that the man in the audiotape should refrain from making further sexual advances, $t(122) = -2.06$, p = .042.

Hypothesis 7

In order to examine if there was an interaction between sexual perpetration history and social impact, moderation analysis using the PROCESS macro (Hayes, 2013) was run. The independent variables were sexual perpetration history (yes, no) and social impact (social, alone). The dependent variable was risk recognition, operationalized as response latency; it was a

continuous variable measured in seconds. The interaction term explained a significant increase in variance in response latency, $\Delta R^2 = .04$, $F(1, 120) = 5.27$, $p = .02$ (see Table 8). Thus, social impact was a significant moderator of the relationship between sexual perpetration history and response latency (see Figure 2).

Table 8

Linear Model of Social Group and Perpetration History as Predictors of Response Latency

	b	*SE B*	*t*	*p*
Constant	100.88	9.52	10.59	<.001
Social group	65.07	13.13	4.96	<.001
Perpetration history	71.81	23.53	3.05	.002
Social x Perpetration	-74.28	29.45	-2.52	.01

Hypothesis 8

In order to determine if response latencies were different for individuals endorsing social desirability, a linear regression was run. The independent variable was Agreeableness; it was a continuous variable with higher scores indicating more Agreeableness. The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. Agreeableness did not significantly predict response latency, $b = 7.32$, $t(122) = 1.14$, $p = .26$.

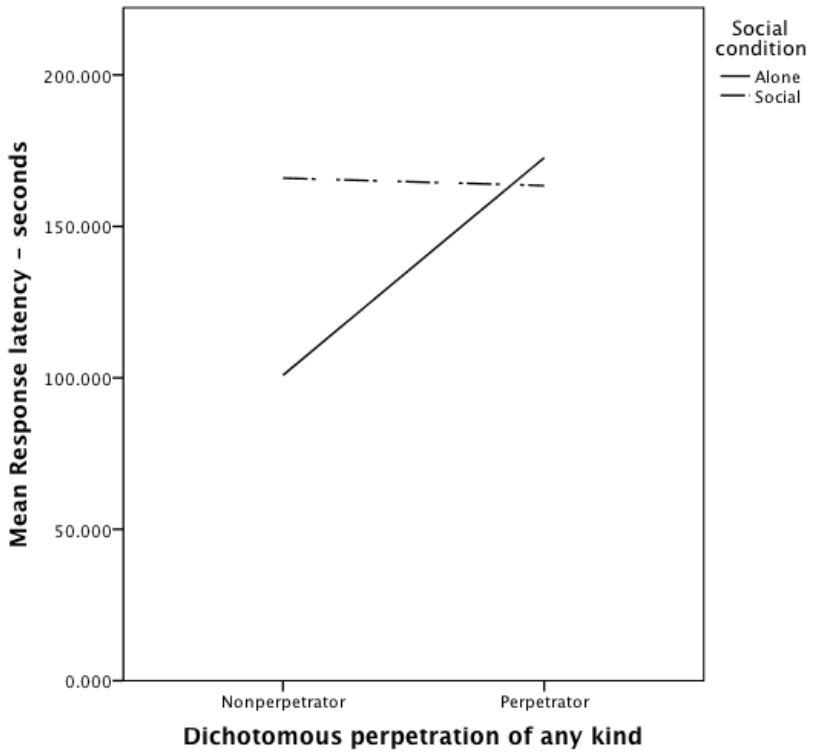

Figure 2. The moderating effect of social condition on the relationship between sexual perpetration history and response latency.

Hypothesis 9

In order to determine if there is an interaction between social desirability and social impact, moderation analysis using the PROCESS macro (Hayes, 2013) was run. The independent variables were social desirability and social impact (social, alone). The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. The interaction term did not explain a significant increase in variance in response latency, $\Delta R^2 = .001$, $F(1, 120) = .09$, $p = .75$. Thus, social impact did not moderate the relationship between social desirability and response latency (see Table 9).

Table 9

Linear Model of Social Group and Agreeableness as Predictors of Response Latency

	b	*SE B*	*t*	*p*
Constant	130.75	67.63	1.93	.05
Social group	-79.86	87.52	-.91	.36
Agreeableness	-2.44	9.29	-.26	.79
Social x Agreeableness	18.51	12.08	1.53	.13

Hypothesis 10

In order to determine if response latencies differed for individuals endorsing rape myths, a linear regression was run. The independent variable was RMA; it was a continuous variable with higher scores indicating more acceptance. The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. RMA did not significantly predict response latency, $b = .13$, $t(122) = 1.44$, $p = .15$.

Hypothesis 11

In order to determine if there was an interaction between RMA and social impact, a moderation analysis using the PROCESS macro (Hayes, 2013) was conducted. The independent variables were RMA and social impact (social, alone). The dependent variable was risk recognition, operationalized as response latency; it was a continuous variable measured in seconds. The interaction term did not explain a significant increase in variance in response latency, $\Delta R^2 = .01$, $F(1, 120) = .89$, $p = .35$. Thus, social impact did not moderate the relationship between RMA and response latency (see Table 10).

Table 10

Linear Model of IRMA and Social Group as Predictors of Response Latency

	b	*SE B*	*t*	*p*
Constant	52.47	27.31	1.92	.05
Social group	91.46	38.32	2.39	.02
IRMA total	.60	.26	2.33	.02
Social x IRMA	-.37	.39	-.95	.35

Hypothesis 12

In order to determine if heart rate reactivity changed throughout the risk recognition task, a repeated measures analysis of variance (ANOVA) was conducted. The within-subjects variable was the heart rate data (i.e., baseline, 5 vignette segments, follow-up) the dependent variable was mean heart rate beats per minute. Mean heart rate scores were used in the analysis, instead of change scores, because the nature of the within-subjects test examines the change of individual's heart rate scores over time; in effect, the within-subjects test creates individual change scores. Participant heart rates differed significantly as the study progressed, $F(6, 636) = 16.784$, $p < .001$. Polynomial contrasts revealed that the data fit a quadratic pattern, $F(1, 106) = 21.34$, $p < .001$; heart rate data was highest during the baseline, decreased throughout the task, and increased again after the task was over (see Table 11 for descriptive statistics).

In order to determine if there was an interaction between heart rate reactivity and social condition, a mixed factorial analysis of variance (ANOVA) was conducted. The within-subjects factor was heart rate data (i.e., means for baseline, 5 vignette segments, and follow-up), and the between-subjects factor was social condition (social, alone). As demonstrated above, there was a significant main effect for the heart rate segments, $F(6, 636) = 16.784$, $p < .001$, indicating that

Table 11

Descriptive Statistics for Heart Rate Data

Segment	*M*	*SD*	*N*
Pre-task	88.97	18.58	110
I. Mutual interaction	85.29	17.33	110
II. Verbal refusals and apologies by the man	83.27	16.68	110
III. Verbal pressure and refusals	82.87	16.99	110
IV. Verbal threats and adamant refusals	82.31	16.55	110
V. Forced sex	81.85	16.09	110
Post-task	83.78	13.64	110

participants' heart rate varied across the baseline, vignette segments, and follow-up periods. This main effect was qualified by a significant interaction between heart rate and social group, $F(6, 636) = 5.32$, $p < .001$. This indicates that the social environment in which participants completed the risk recognition task had an effect on heart rate over time (see Table 12). Polynomial contrasts revealed that the data followed a quadratic pattern, $F(1, 106) = 18.421$, $p < .001$. For individuals in the social group, heart rate was highest at the beginning of the task and decreased throughout and after the task. However, for individuals that completed the task alone, heart rate was highest at the beginning of the task, decreased rapidly throughout the task, and then spiked again after the task was over (see Figure 3).

Hypothesis 13

In order to determine if there was an interaction between heart rate reactivity and gender, a mixed factorial analysis of variance (ANOVA) was conducted. The within-subjects factor was heart rate data (i.e., means for baseline, 5 vignette segments, and follow-up), and the between-

Table 12

Descriptive Statistics for Heart Rate Data by Social Condition

	Alone		Social	
Segment	*M*	*SD*	*M*	*SD*
Pre-task	90.05	2.74	88.37	2.39
I: Mutual interaction	84.23	2.55	86.40	2.22
II. Verbal refusals and apologies by the man	80.96	2.42	85.48	2.11
III. Verbal pressure and refusals	81.07	2.49	84.57	2.17
IV. Verbal threats and adamant refusals	80.49	2.40	84.19	2.09
V. Forced sex	81.21	2.33	82.90	2.03
Post-task	85.71	1.95	82.87	1.70

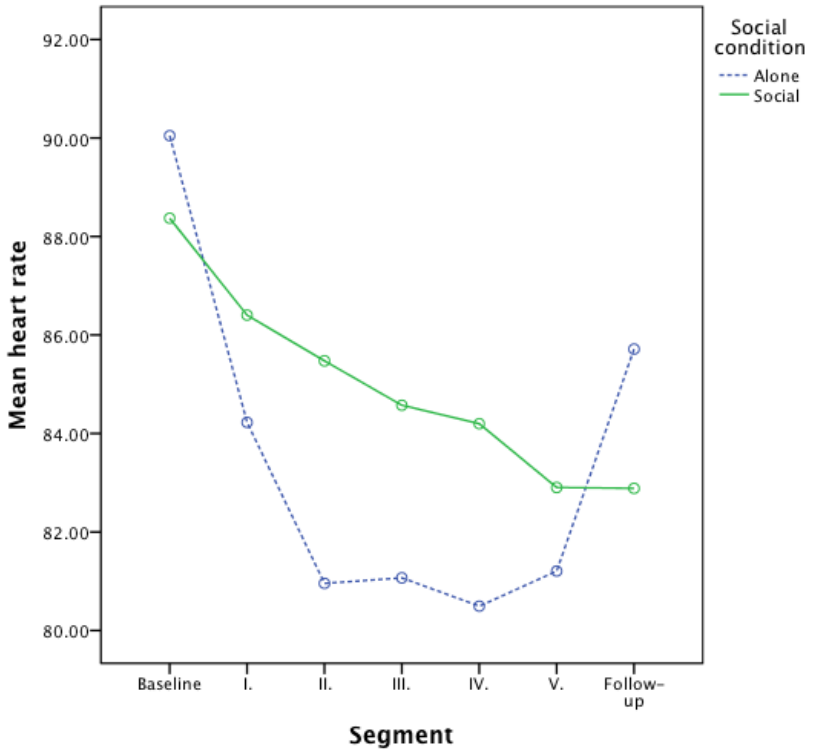

Figure 3. The interaction between social condition and time throughout the risk recognition task.

subjects factor was gender (male, female). There was a significant main effect for heart rate segment, $F(6, 636) = 16.78$, $p < .001$, indicating that participants' heart rate varied across the task and follow-up periods (see Table 13). This was qualified by a significant interaction between heart rate segment and gender, $F(6, 636) = 2.27$, $p = .03$. Polynomial contrasts revealed that the data followed a linear pattern, $F(1, 106) = 4.65$, $p = .03$. Women's heart rate was higher than men's throughout the task and women experienced less of a decrease in heart rate than did men throughout the task (see Figure 4).

Table 13

Descriptive Statistics for Heart Rate Data by Gender

	Male		Female	
Segment	*M*	*SD*	*M*	*SD*
Pre-task	88.13	2.51	90.29	2.63
I: Mutual interaction	85.03	2.33	85.59	2.45
II. Verbal refusals and apologies by the man	81.59	2.22	84.84	2.33
III. Verbal pressure and refusals	81.45	2.28	84.19	2.39
IV. Verbal threats and adamant refusals	80.13	2.17	84.56	2.31
V. Forced sex	79.16	2.13	84.99	2.34
Post-task	81.74	1.78	86.86	1.88

There was no significant three-way interaction between heart rate segment, social group, and gender, $F(6, 636) = .51$, $p = .80$.

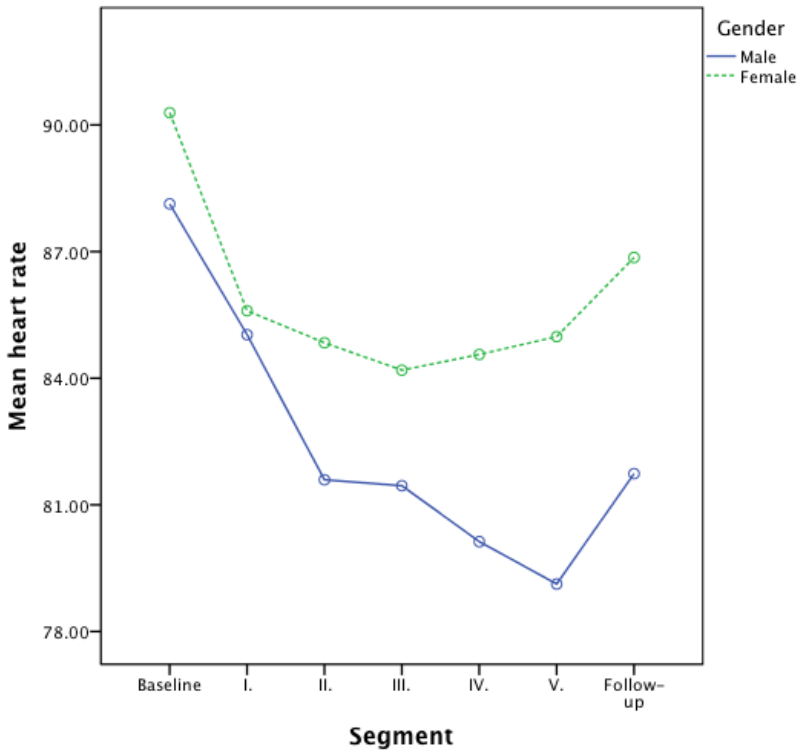

Figure 4. The interaction between gender and time throughout the risk recognition task.

CHAPTER 5

DISCUSSION

The current study sought to measure risk recognition within the context in which sexual assault most commonly occurs: with two people present. Prior research has attempted to examine social impact by manipulating information, such as prior intimacy and popularity impact, in written vignettes (Hoyt & Yeater, 2011; Yeater et al., 2010). However, these manipulations did not accurately capture the influence of social variables. The current study had participants complete the Marx and Gross (1995) risk recognition task in the presence of an opposite sex confederate or in isolation. This allowed for the measurement of social impact and, as a result, insight on how people recognize the risk for sexual assault in a setting that more accurately reflects the situations in which these judgments are made.

In general, participants did not display sufficient risk recognition abilities. Only 32% of participants indicated that the man should refrain from making further sexual advances when the woman was making polite refusals. In other words, almost 70% of participants did not display adequate risk recognition abilities. Over 15% of participants, 20% of men and over 10% of women, waited until the man had forced sex upon the woman to indicate that the man should refrain from making further sexual advances. Despite expansive education and intervention programs, college students are still not adequately aware of what constitutes appropriate sexual

interactions. This could reflect the perpetuation of the belief that women engage in "token resistance" to sex and say "no" but mean "yes" (Muehlenhard & Hollabaugh, 1988).

Furthermore, social influence appears to be particularly impactful on people's risk recognition abilities. When alone, over 56% of participants adequately recognized the risk for sexual assault (i.e., when the woman was making polite refusals). However, when completing the task with an opposite-sex confederate, only 26% of participants adequately recognized the risk for sexual assault; 74% did not display sufficient risk recognition abilities. In fact, 23% of participants, 29% of men and 16% of women, waited until the forced rape began to make this indication. These results shed light on both the failure of college students to recognize the risk for sexual assault and the importance of social influence in making this recognition.

These results have important implications for the implementation of bystander intervention programs (e.g., Banyard, Moynihan, & Plante, 2007). Such programs rely on other students (i.e., bystanders) to step up and intervene before a sexual assault occurs. The results of the current study highlight how the diffusion of responsibility principle hinders people from making sufficient risk recognition indications. In other words, when another person is present, participants waited on this person to indicate that the man should refrain from making his sexual advances. When the other person did not make an indication, the participants continued to wait, and they frequently waited until sexual assault had already occurred. Perhaps participants doubted their intuition or knowledge about sexual assault, or perhaps they were driven to conform. Either way, participants were not compelled to stand up and indicate that the situation was inappropriate. If, in a controlled experimental setting, participants hesitate to press a space bar, it is unlikely that they will adequately recognize the risk for their own sexual assault

perpetration or victimization and/or engage in preventative bystander interventions to prevent the sexual assault of someone else outside of the lab.

In addition, there was a high rate of both sexual assault perpetration and victimization. Over 30% of men and 60% of women reported some form of sexual assault victimization. Both men and women most frequently reported experiencing unwanted sexual contact and sexual coercion, and more women than men reported experiencing rape. Furthermore, over 30% of men and 11% of women reported some form of sexual assault perpetration. Men most frequently reported perpetrating sexual coercion. However, the most frequently reported form of perpetration for women was rape. This may suggest that information about male perpetrated rape has shaped how people understand and respond to sexual assault; however, there may be a disconnect in how people understand female perpetrated sexual assault. In total, these data, which are consistent with nation-wide samples (e.g., Koss et al., 1987), would suggest that individuals continue to struggle in recognizing and responding to the threat of sexual assault victimization and perpetration.

When examined in further detail, the pattern that emerges in the relationship between sexual assault perpetration, social impact, and risk recognition is of interest. Completing the task with another person moderated the relationship between sexual assault perpetration and risk recognition. Specifically, individuals who have perpetrated sexual assault responded differently to the risk recognition task when they were alone and when they were with another person. Non-perpetrators of sexual assault displayed the typical social influence pattern. When alone, they displayed much better risk recognition than when they completed the task with an opposite sex confederate. However, perpetrators of all types of sexual assault exhibited a different pattern. When alone, they exhibited very poor risk recognition abilities as evidenced by a willingness to

listen to almost the entire (or the entire) vignette before indicating that the man should refrain from further advances. When completing the task with an opposite-sex confederate, however, perpetrators of sexual assault exhibited better risk recognition abilities. This finding is unexpected because it appears that perpetrators of sexual assault are aware that the interaction in the task is inappropriate, but only indicate this when in the presence of a person of the opposite sex. In other words, there appears to be a motivation to placate the confederate participant by making a false risk recognition indication. This could be due to many factors, such as a desire to present ones self in a favorable light when accompanied by others.

In regard to the physiological data, several interesting patterns were observed. Broadly, the current study was able to replicate Soler-Baillo et al.'s (2005) findings that heart rate tends to decrease after the risk recognition part of the task has been completed. With the inclusion of men and a social manipulation, several additional patterns of interest emerged. In general, both women's and men's heart rate tended to be at its highest before the task started, decreased, and then increased after the tasked ended. Men's heart rate tended to decrease throughout the entire task, with lowest mean values occurring when the rape was occurring in the vignette. This degree of physiological non-arousal may indicate disengagement from what was occurring in the vignette. Women's heart rate, on the other hand, tended to decrease until the woman's refusals were adamant and the man was more forceful in actions. Interestingly, during the nine minute follow-up period, participants' heart rates increased. This may be due to an attempt by both genders to disengage or emotionally distance themselves from the task; after the task was completed participants may have reengaged emotionally with their experiences.

There were two segment contrasts that yielded statistically significant results. Specifically, women's heart rate decreased at a slower rate than did men's heart rate near the

beginning of the task (i.e., after mutual sexual interaction), indicating that they may have remained more physiologically aroused and alert to any potential dangers. Alternately, men's heart rate decreased very quickly after this period of mutual sexual interaction; this may reflect a dismissal of any danger in the interaction or acceptance of the rape myth that consent to any sexual activity equates consent to all sexual activity. The second significant contrast occurred when the use of physical force to obtain sexual activity was introduced into the vignette; men's heart rate decreased while women's heart rate increased. This may be reflective of men's dismissal or avoidance of the actions in the vignette. It could also be capturing women's level of discomfort with the use of physical force.

In addition, an interesting pattern of physiological data emerged when comparing participants that completed the task alone and participants that completed the task with another person present. When the task was completed alone, participants' heart rate quickly declined from baseline through the completion of the task. This may be reflective of the fact that participants who completed the task alone made faster risk judgments. Once the cognitive task was complete, participants were able to disengage from the uncomfortable task. However, after the task had been completed, participants who completed the task alone displayed a sharp increase in heart rate. In contrast, participants who completed the task alone experienced a more gradual decrease in heart rate; this may be reflective of longer response latencies and the associated need for prolonged physiological arousal. However, after the task was over, participants who completed the task alone did not experience an increase in heart rate. The difference in physiological arousal between the two conditions after the task may reflect participants' attempts to understand and rationalize their experience during the task. Participants who completed the task with another person could engage in the distribution of responsibility

and social comparison. It is possible that these participants did not question their own responses to the task because they were able to compare their response to the response of the confederate. On the other hand, participants who completed the task alone may have continued to process their experience and perhaps question their actions and risk judgment. This process may have resulted in physiological arousal and cognitive engagement.

Importantly, several of the expected patterns were not significant. The relationship between gender, social impact, and response latency was not significant; this was likely due to a lack of power. The relationship between victimization history and risk recognition was not significant, as is consistent with some, but not all, previous research. As Gidycz et al. (2006) discuss, victimization and risk recognition are complex and multi-faceted constructs, and the results from the current study further solidify the need to further explicate the intricacies involved in both. Subjective experiences of victimization history, regulation of one's emotions and behaviors, and post-victimization social experiences may influence awareness of current risk. In addition, Agreeableness, as measured by the MM-40 (Saucier, 1994), did not predict risk recognition; this may be due to the psychometric properties and age of the measure. Additional measures that encompass social desirability, such as Agreeableness, may be more appropriate in future studies. Finally, the relationship between RMA and risk recognition was not significant. This nonsignificant finding could reflect several phenomena. For example, it could be that students are more aware of the rape myths that exist in society and are better able answer in a socially desirable manner. On the other hand, the lack of a relationship may indicate that college students do not internalize rape myths to the extent that they once did. However, the prevalence of sexual assault on college campuses does not reflect diminishing acceptance of rape myths, indicating that college students know how to answer "correctly," but not how to act.

Limitations and Future Directions

The most prominent limitation of the current study was the restrained sample size. Many comparisons of interest (e.g., victimized women that completed the task with another person) did have an adequate number of participants. It is recommended that the present study be replicated with a larger sample size so that these comparisons may be explored.

Procedurally, there were complications with the collection of the heart rate data. The chest band used to obtain heart rate data frequently could not collect information from overweight and obese participants. Furthermore, the data analysis software, Kubios, could not analyze segments shorter than 30 seconds; as such, the segments recommended for analysis (Marx & Soler-Baillo, 2005) could not be used as two of the segments did not meet this time requirement. As a result, more precise methods of physiological data collection are recommended to further explore and explicate the relationship between physiological arousal and risk recognition.

Additionally, some participants retroactively claimed to not understand the directions to the task; all such participants were in the social condition. While it may be that these participants wished to explain their behavior during the task, the possibility that some participants did not understand the procedure presents a confound. These participants were removed from analyses as it was impossible to determine the true extent of their misunderstanding. It is recommended that future researchers utilizing this procedure print the instructions and tape it to the computer monitor.

While sexual assault is a pervasive problem on college campuses, it is important to understand if the same patterns of risk recognition and social influence are present in a general population.

Finally, the results of the present study provide many avenues for future research. By establishing the role of social influence in risk recognition of sexual assault, it is important to extend these findings. For example, the gender of the confederate, the number of confederates, when and if the confederate makes the risk recognition indication, verbal and behavioral contributions of the confederate, and location of the study are all variables that may contribute to a participant's risk recognition abilities. By better understanding the social environment and how it influences people's ability to recognize the risk for sexual assault, interventions can be targeted and implemented that strive to end sexual violence.

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APPENDIX A

INFORMED CONSENT

I, _____, agree to participate in the research project titled Gender Differences in Relationships being conducted by Mary C. Mercer, B.A., and Michelle Lilly, Ph.D., at Northern Illinois University. I have been informed that the purpose of the study is to better understand how college men and women think about and process sexual information.

I understand that if I agree to participate in this study, I will be asked to do the following: complete a relationship task with an opposite-sexed participant and complete questionnaires that have questions regarding my relationship history, sexual history, substance use (i.e., alcohol and drug use), and beliefs about relationships. I understand that the total time this study will take is approximately one hour.

I am aware that my participation is voluntary and may be withdrawn at any time without penalty or prejudice, and that if I have any additional questions concerning this study, I may contact Dr. Michelle Lilly at (815) 753-4602. I understand that if I want more information regarding my rights as a research participant, I may contact the Office of Research Compliance at Northern Illinois University at (815) 753-8588.

I understand that the intended benefits of this study include a better understanding of how men and women view and react to certain relationship interactions. I also understand that my participation in this study is adding to society's understanding of how men and women interact within relationships to produce certain outcomes; the action of one partner may influence the action of the other partner. By participating in this study, I am helping researchers and society better understand how this works.

I have been informed that potential risks and/or discomforts I could experience during this study include discomfort and distress. As with most human interactions, relationships include positive and negative experiences. I understand that the researcher hopes to better understand both of these types of experiences. Consequently, some of the questions and activities I will be asked to do may remind me of negative things I have experienced. Remembering these experiences may be upsetting or distressing to me. Additionally, discussing some of these events may be uncomfortable. I understand that if I feel distressed, I can stop at any point.

I understand that all information gathered during this experiment will be kept confidential. My name will not be kept with my responses to questionnaires or tasks. In other words, I understand that the data I give will be kept anonymous. Furthermore, I understand that any information I provide will be stored in a locked filing cabinet. Also, I understand that the data I provide will never be reported individually; all information will be presented in groups. These steps are all taken to protect my identity and anonymity in the research process.

I understand that my consent to participate in this project does not constitute a waiver of any legal rights or redress I might have as a result of my participation, and I acknowledge that I have received a copy of this consent form.

_____ _____

Signature Date

APPENDIX B

DEMOGRAPHICS

What is your gender?

[ ] Male
[ ] Female
[ ] Transexual
[ ] Transgender

What is your sexual orientation?

[ ] Heterosexual
[ ] Homosexual
[ ] Bisexual
[ ] Asexual

How old are you? _____

Your current relationship status (check one):

[ ] Single [ ] Separated
[ ] Dating [ ] Widowed
[ ] Living with partner [ ] Divorced
[ ] Married [ ] Remarried

What category best describes your race or ethnicity?

[ ] Native American
[ ] Asian
[ ] Black, African-American
[ ] Latino, Hispanic-American
[ ] Caucasian, European American
[ ] Biracial (mixed): specify _____
[ ] Other: specify _____

What is your current level of education?

[ ] Freshman
[ ] Sophomore
[ ] Junior
[ ] Senior
[ ] Other

Are you working at this time?

[ ] Yes Hours per week? _____
[ ] No

What job do you do (i.e., what is your job title)? _____

What was your total household income last month?

APPENDIX C

SEXUAL EXPERIENCES SURVEY VICTIMIZATION

The following questions concern sexual experiences that you may have had that were unwanted. We know that these are personal questions, so we do not ask your name or other identifying information. 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.

	Sexual Experiences	**How many times in the past 12 months?**	**How many times since age 14?**
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 *(but did not attempt sexual penetration)* 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.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm me or someone close to me.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

		How many times in the past 12 months?				How many times since age 14?			
2.	**Someone had oral sex with me or made me have oral sex with them 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.	☐	☐	☐	☐	☐	☐	☐	☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐	☐	☐	☐	☐	☐	☐	☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐	☐	☐	☐	☐	☐	☐	☐
	d. Threatening to physically harm me or someone close to me.	☐	☐	☐	☐	☐	☐	☐	☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐	☐	☐	☐	☐	☐	☐	☐

3.	**If you are a male, check box and skip to item 4☐** **A man put his penis into my vagina, or someone inserted fingers or objects 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.	☐	☐	☐	☐	☐	☐	☐	☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐	☐	☐	☐	☐	☐	☐	☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐	☐	☐	☐	☐	☐	☐	☐
	d. Threatening to physically harm me or someone close to me.	☐	☐	☐	☐	☐	☐	☐	☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐	☐	☐	☐	☐	☐	☐	☐

		How many times in the past 12 months?				How many times since age 14?			
4.	**A man put his penis into my butt, or someone inserted fingers or objects 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.	☐	☐	☐	☐	☐	☐	☐	☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐	☐	☐	☐	☐	☐	☐	☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐	☐	☐	☐	☐	☐	☐	☐
	d. Threatening to physically harm me or someone close to me.	☐	☐	☐	☐	☐	☐	☐	☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐	☐	☐	☐	☐	☐	☐	☐

5.	**Even though it didn't happen, someone TRIED to have oral sex with me, or make me have oral sex with them 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.	☐	☐	☐	☐	☐	☐	☐	☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐	☐	☐	☐	☐	☐	☐	☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐	☐	☐	☐	☐	☐	☐	☐
	d. Threatening to physically harm me or someone close to me.	☐	☐	☐	☐	☐	☐	☐	☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐	☐	☐	☐	☐	☐	☐	☐

		How many times in the past 12 months?				How many times since age 14?			
6.	**If you are male, check this box and skip to item 7 ☐ Even though it didn't happen, a man TRIED to put his penis into my vagina, or someone tried to stick in fingers or objects 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.	☐	☐	☐	☐	☐	☐	☐	☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐	☐	☐	☐	☐	☐	☐	☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐	☐	☐	☐	☐	☐	☐	☐
	d. Threatening to physically harm me or someone close to me.	☐	☐	☐	☐	☐	☐	☐	☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐	☐	☐	☐	☐	☐	☐	☐

7.	**Even though it didn't happen, a man TRIED to put his penis into my butt, or someone tried to stick in objects or fingers 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.	☐	☐	☐	☐	☐	☐	☐	☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐	☐	☐	☐	☐	☐	☐	☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐	☐	☐	☐	☐	☐	☐	☐
	d. Threatening to physically harm me or someone close to me.	☐	☐	☐	☐	☐	☐	☐	☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐	☐	☐	☐	☐	☐	☐	☐

8. I am: Female ☐ Male ☐
My age is _____ years and _____months.

9. Did any of the experiences described in this survey happen to you 1 or more times?
Yes ☐ No ☐

What was the sex of the person or persons who did them to you?

Female only ☐
Male only ☐
Both females and males ☐
I reported no experiences ☐

10. Have you ever been raped? Yes ☐ No ☐

APPENDIX D

SEXUAL EXPERIENCES SURVEY PERPETRATION

The following questions concern sexual experiences. We know these are personal questions, so we do not ask your name or other identifying information. 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 14th birthday and stopping one year ago from today.

	Sexual Experiences	**How many times in the past 12 months?**	**How many times since age 14?**
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 *(but did not attempt sexual penetration)* by:**	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.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage when they were too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm them or someone close to them.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

		How many times in the past 12 months?	How many times since age 14?
2.	**I had oral sex with someone or had someone perform oral sex on me without their consent by:**	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.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage when they were too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm them or someone close to them.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

3.	**I put my penis (men only) or I put my fingers or objects (all respondents) into a woman's vagina without her consent by:**	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.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage when they were too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm them or someone close to them.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

		How many times in the past 12 months?	How many times since age 14?
4.	**I put in my penis (men only) or I put my fingers or objects (all respondents) into someone's butt without their consent by:**	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.	☐☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage when they were too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm them or someone close to them.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

5.	**Even though it did not happen, I TRIED to have oral sex with someone or make them have oral sex with me without their consent by:**	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.	☐☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage when they were too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm them or someone close to them.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
.	e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

		How many times in the past 12 months?	How many times since age 14?
6.	**Even though it did not happen, I TRIED put in my penis (men only) or I tried to put my fingers or objects (all respondents) into a woman's vagina without their consent by:**	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.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage when they were too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm them or someone close to them.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

7.	**Even though it did not happen, I TRIED to put in my penis (men only) or I tried to put my fingers or objects (all respondents) into someone's butt without their consent by:**	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.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing their sexuality or attractiveness, getting angry but not using physical force after they said they didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage when they were too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm them or someone close to them.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding them down with my body weight, pinning their arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

8. I am: Female ☐ Male ☐
My age is _____ years and _____months.

9. Did you do any of the acts described in this survey 1 or more times? Yes ☐ No ☐

If yes, what was the sex of the person or persons to whom you did them?

Female only ☐
Male only ☐
Both females and males ☐
I reported no experiences ☐

10. Do you think you may have you ever raped someone? Yes ☐ No ☐

APPENDIX E

ILLINOIS RAPE MYTH ACCEPTANCE SCALE

1	2	3	4	5	6	7
Not at all agree						Very much agree

1.	If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.	1	2	3	4	5	6	7
2.	Although most women wouldn't admit it, they generally find being physically forced into sex a real "turn-on."	1	2	3	4	5	6	7
3.	When men rape, it is because of their strong desire for sex.	1	2	3	4	5	6	7
4.	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.	1	2	3	4	5	6	7
5.	Women who are caught having an illicit affair sometimes claim that it was rape.	1	2	3	4	5	6	7
6.	Newspapers should not release the name of a rape victim to the public.	1	2	3	4	5	6	7
7.	Many so-called rape victims are actually women who had sex and "changed their minds" afterwards.	1	2	3	4	5	6	7
8.	Many women secretly desire to be raped.	1	2	3	4	5	6	7
9.	Rape mainly occurs on the "bad" side of town.	1	2	3	4	5	6	7
10.	Usually, it is only women who do things like hang out in bars and sleep around that are raped.	1	2	3	4	5	6	7
11.	Most rapists are not caught by the police.	1	2	3	4	5	6	7
12.	If a woman doesn't physically fight back, you can't really say that it was rape	1	2	3	4	5	6	7
13.	Men from nice middle-class homes almost never rape.	1	2	3	4	5	6	7
14.	Rape isn't as big a problem as some feminists would like people to think.	1	2	3	4	5	6	7
15.	When women go around wearing low-cut tops or short skirts, they're just asking for trouble	1	2	3	4	5	6	7
16.	Rape accusations are often used as a way of getting back at men.	1	2	3	4	5	6	7
17.	A rape probably didn't happen if the woman has no bruises or marks.	1	2	3	4	5	6	7
18.	Many women find being forced to have sex very arousing.	1	2	3	4	5	6	7
19.	If a woman goes home with a man she doesn't know, it is her own fault if she is raped.	1	2	3	4	5	6	7
20.	Rapists are usually sexually frustrated individuals.	1	2	3	4	5	6	7

1 Not at all agree	2	3	4	5	6	7 Very much agree

21.	All women should have access to self-defense classes	1	2	3	4	5	6	7
22.	It is usually only women who dress suggestively that are raped.	1	2	3	4	5	6	7
23.	Some women prefer to have sex forced on them so they don't have to feel guilty about it.	1	2	3	4	5	6	7
24.	If the rapist doesn't have a weapon, you really can't call it rape.	1	2	3	4	5	6	7
25.	When a woman is a sexual tease, eventually she is going to get into trouble.	1	2	3	4	5	6	7
26.	Being raped isn't as bad as being mugged and beaten.	1	2	3	4	5	6	7
27.	Rape is unlikely to happen in the woman's own familiar neighborhood.	1	2	3	4	5	6	7
28.	In reality, women are almost never raped by their boyfriends.	1	2	3	4	5	6	7
29.	Women tend to exaggerate how much rape affects them.	1	2	3	4	5	6	7
30.	When a man is very sexually aroused, he may not even realize that the woman is resisting.	1	2	3	4	5	6	7
31.	A lot of women lead a man on and then they cry rape.	1	2	3	4	5	6	7
32.	It is preferable that a female police officer conduct the questioning when a woman reports a rape.	1	2	3	4	5	6	7
33.	A lot of times, women who claim they were raped just have emotional problems.	1	2	3	4	5	6	7
34.	If a woman doesn't physically resist sex – even when protesting verbally – it really can't be considered rape.	1	2	3	4	5	6	7
35.	Rape almost never happens in the woman's own home.	1	2	3	4	5	6	7
36.	A woman who "teases" men deserves anything that might happen.	1	2	3	4	5	6	7
37.	When women are raped, it's often because the way they said "no" was ambiguous.	1	2	3	4	5	6	7
38.	If a woman isn't a virgin, then it shouldn't be a big deal if her date forces her to have sex.	1	2	3	4	5	6	7
39.	Men don't usually intend to force sex on a woman, but sometimes they get too sexually carried away.	1	2	3	4	5	6	7
40.	This society should devote more effort to preventing rape.	1	2	3	4	5	6	7

1	2	3	4	5	6	7
Not at all agree						Very much agree

41.	A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex.	1	2	3	4	5	6	7
42.	Rape happens when a man's sex drive gets out of control.	1	2	3	4	5	6	7
43.	A woman who goes to the home or apartment of a man on the first date is implying that she wants to have sex.	1	2	3	4	5	6	7
44.	Many women actually enjoy sex after the guy uses a little force.	1	2	3	4	5	6	7
45.	If a woman claims to have been raped but has no bruises or scrapes, she probably shouldn't be taken too seriously.	1	2	3	4	5	6	7

APPENDIX F

MINI-MARKERS-40

Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you see yourself at the present time, not as you wish to be in the future. Describe yourself as you are generally or typically, as compared with other persons you know of the same sex and of roughly your same age. Before each trait, please write a number indicating how accurately that trait describes you, using the following rating scale:

1	2	3	4	5	6	7	8	9
Extremely Inaccurate	Very Inaccurate	Moderately Inaccurate	Slightly Inaccurate	Neither Inaccurate nor Accurate	Slightly Accurate	Moderately Accurate	Very Accurate	Extremely Accurate

___ Bashful	___ Energetic	___ Moody	___ Systematic
___ Bold	___ Envious	___ Organized	___ Talkative
___ Careless	___ Extraverted	___ Philosophical	___ Temperamental
___ Cold	___ Fretful	___ Practical	___ Touchy
___ Complex	___ Harsh	___ Quiet	___ Uncreative
___ Cooperative	___ Imaginative	___ Relaxed	___ Unenvious
___ Creative	___ Inefficient	___ Rude	___ Unintellectual
___ Deep	___ Intellectual	___ Shy	___ Unsympathetic
___ Disorganized	___ Jealous	___ Sloppy	___ Warm
___ Efficient	___ Kind	___ Sympathetic	___ Withdrawn

APPENDIX G

DEBRIEFING

Social Impact and Gender in Risk Recognition of Sexual Assault

Thank you for participating in the current study. The purpose of this research is to better understand how men and women recognize risk for sexual assault perpetration and victimization. Several factors have already been identified as being important in this process, but this is the first study to examine how social influence impacts risk recognition abilities, or how risk recognition is affected by the presence of another person. You may have completed the study with another person or alone. If you completed the study with another person, the individual was actually assisting in the research project. This person knew the purpose of the study and was instructed to not hit the space bar to indicate that the man had "gone too far".

In research, the use of another person is called a "confederate" and is known as a form of deception. While it may be uncomfortable, it is sometimes a necessary part of research. If you had known the person participating with you was never going to hit the space bar, you might have behaved differently. If you are uncomfortable with having been deceived, you are welcome to withdraw your data from the sample. However, we urge you to remember that your results are completely confidential and anonymous. The information that you provided to us is also very helpful in learning more about risk recognition, and moving toward more effective prevention and intervention of sexual assault.

In addition to listening to the audio recording, you filled out several questionnaires. These questionnaires were designed to examine how certain variables, such as alcohol use or believing certain things about rape, may influence risk recognition. Some of these questions may have been difficult to answer or made you think about things that made you uncomfortable or were potentially distressing. Attached is a list of free or low-cost counseling resources in the DeKalb area. We encourage you to look into these resources if you would like to talk to someone about how you may be feeling.

If you would like to learn more about this experiment and its results, please feel free to contact Dr. Michelle Lilly. You may reach her at (815) 753-4602 or at mlilly1@niu.edu. Additionally, if you are interested in reading more about this area of research, you may want to read the following articles:

Social influence: Asch, S. E. (1955). Opinions and social pressure. *Scientific American, 193*, 31-35.

Women and risk recognition of sexual assault victimization: Gidycz, C. A., McNamara, J. R., & Edwards, K. M. (2006). Risk perception and sexual victimization: A review of the literature. *Aggression and Violent Behavior, 11*, 441-456.

Men and risk recognition of sexual assault perpetration: Marx, B. & Gross, A. (1995). Date rape: An analysis of two contextual factors. *Behavior Modification, 19*, 451-463.

We ask that you please refrain from discussing the purpose of this study with your peers. Knowing the purpose of the study beforehand can bias that person's behavior, and consequently, alter the results. Because prevention programs are founded on research, this could impact how effective such programs are.

If you have any complaints, concerns, or questions about this study, please feel free to contact the Office of Research Compliance at (815) 753-8588.