

**Situational and Dispositional Determinants of College Men's Perception of Women's  
Sexual Wantedness and Sexual Consent: A Factorial Vignette Analysis**

by

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## Abstract

The presence of sexual consent is pivotal to the determination of the legality and morality of a given sexual interaction. As such, the conceptualization of sexual consent is of particular importance within the study of sexual coercion. However, the dominant social construction of rape (and other forms of sexual coercion) conflates sexual “wantedness” (i.e., a feeling of desire to engage in a sexual behavior) with sexual consent (i.e., the communication of willingness to engage the behavior; Peterson & Muehlenhard, 2007). The current study utilizes a factorial vignette analysis to examine college men’s perceptions of women’s sexual wantedness and sexual consent in hypothetical dating scenarios depicting a sexual interaction. In addition to explicit consent/refusal communication, the level of physical intimacy attained within the immediate sexual situation and prior sexual history within the relationship impacted men’s perceptions of both sexual wantedness and consent. Results suggested that men tended to perceive verbal consent/refusal communication more clearly than non-verbal communication. On average, men construed passive responding as falling between refusal and consent communication in terms of perceptions of sexual wantedness and consent. Finally, men who endorsed higher hypermasculine identity and rape-supportive beliefs perceived sexual situations as more wanted by the woman and more consensual across situations, controlling for all other situational and dispositional factors.

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## **Introduction**

The majority of coercive sexual practices, including rape, are perpetrated by someone known to the victim through acquaintance, friendship, or in the context of a romantic relationship (Koss, Dinero, Seibel & Cox, 1988; Parrot & Bechhofer, 1991; Tjaden & Thoennes, 2000). This type of sexual assault occurs with alarming frequency and is associated with a host of negative physical, emotional, and interpersonal outcomes (DiVasto, 1985; Koss, Dinero, Seibel, & Cox, 1988; Koss & Burkhardt, 1989). Rape occurring in the context of an acquaintance, friendship, or romantic relationship constitutes an estimated 78.5% of rape in the university setting (Baum & Klaus, 2005). By the end of their senior year of college, approximately 70% of women have experienced some form of sexual victimization, with approximately 21% of those experiences meeting a legal standard of completed rape (Humphrey & White, 2000). Clearly, the issue of acquaintance rape in the university and other settings is a pressing social concern.

### **The Role of Perceived “Sexual Wantedness” in Acquaintance Rape**

Sexual assault is more likely to occur when men report feeling “led on” by the woman in heterosexual dating situations (Abbey, Ross, McDuffie, & McAuslan, 1996; Malamuth & Brown, 1994; Muehlenhard & Linton, 1987). Indeed one of the more prominent “rape myths” is the belief that forced sex is justified if a woman engaged in behavior that was perceived as interest in sexual activity, even in the face of direct refusal (Payne, Lonsway, & Fitzgerald, 1999). Many situational factors that increase risk of sexual assault can be conceptualized as indirect cues of sexual intent or perceived indicators of sexual wantedness (see Farris, Treat, Viken, & McFall, 2008). Among other things, greater levels of blame are attributed to victims of sexual assault who wore revealing clothing (Whatley, 2005; Workman & Freeburg, 1999),

consumed alcohol, (Cameron & Stritzke, 2003), or had a “reputation” for engaging in casual sexual behavior (Cohn, Dupuis, & Brown, 2009). Past consensual activity within the relationship (Goodchilds & Zellman 1984; Koss, et al., 1988; Monson, Langhinrichsen-Rohling, & Binderup, 2000; Shotland, 1989), and consensual engagement in lower levels of sexual intimacy (e.g., kissing or petting) prior to the assault (Van Wie & Gross, 2001), may also contribute to an expectation of continued sexual activity that appears to heighten risk of sexual coercion.

There are two primary reasons why reliance on such indirect signs of sexual wantedness is problematic. First, these indicators may be misinterpreted, and may not in fact be signs of sexual wantedness. For example, in the case of an individual wearing revealing clothing to a social gathering, the individual may have selected the outfit for aesthetic reasons, or the outfit may not have been viewed as “revealing” by the individual who wore it.

Secondly, Peterson and Muehlenhard (2007) demonstrated that “sexual wantedness” is a distinct construct from sexual consent. They define “sexual wantedness” as an individual’s “subjective experience of desiring, feeling inclined toward, or viewing aspects of sex as positively valenced” (p. 73). In contrast, “sexual consent” has been defined as “freely given verbal or nonverbal *communication* of . . . willingness” (Hickman & Muehlenhard, 1999, p. 259). The constructs of sexual wantedness and sexual consent may be related, but are not necessarily so. In fact, people commonly report consenting to sexual activity that is not wanted, often to satisfy partners’ desire or to build intimacy (e.g., Impett & Peplau, 2003; O’Sullivan & Allgeier, 1998). Individuals have also reported unwillingness to engage in sexual activity that is at least partially desired (Muehlenhard & Hollabaugh, 1988; Muehlenhard & Peterson, 2005; Muehlenhard & Rodgers, 1998; Peterson & Muehlenhard, 2007). Perceived sexual wantedness is used by offenders, juries, and the general population alike to justify perpetration of sexual assault

(Estrich, 1987). Often, even clear indications of refusal are discounted when ostensible indicators of a victim's "wantedness" are present (e.g., McHugh, 1997). However, it is the issue of consent - not perceptions of wantedness - on which the morality and legality of a given sexual activity hinges.

### **Perceived Indicators of Sexual Wantedness**

**The role of alcohol.** Roughly 50% of sexual assaults involve alcohol consumption by the perpetrator and/or victim (Abbey, Ross, McDuffie, & McAuslan, 1996). In sexual assault situations in which alcohol is involved, typically both parties have consumed alcohol (Abbey, McAuslan, & Ross, 1998). Abbey (2002) outlined multiple pathways by which alcohol may contribute to sexual assault. Alcohol may increase men's willingness to behave aggressively by weakening inhibition of socially undesirable behavior. Alcohol may also create a myopia that enhances sensitivity to immediate reward cues and lowers sensitivity to long-term consequences, leading to increased likelihood of sexual assault perpetration (Steele & Josephs, 1990). As noted previously, women's use of alcohol is often perceived as an indicator of sexual availability (Abbey & Harnish, 1995), which alone may heighten risk for sexual assault. Abbey and colleagues (2002) also summarize findings suggesting alcohol intoxication substantially decreases an individual's ability to effectively communicate sexual intentions, resolve misperceptions, and physically resist sexual advances.

**Ambiguity in sexual communication.** Ambiguous signals of sexual interest appear to constitute normative sexual communication and may even be adaptive in some situations. Some scholars suggest that pursuers of sexual activity use indirect or ambiguous indicators of sexual interest due to the risk of social rejection or perceptions of impropriety during overt displays of



sexual interest (Mitchell & Wellings, 2002). However, ambiguity creates the clear risk of misperception of sexual interest by both those initiating and responding to sexual cues. For example, an individual interested in sexual activity with a casual date may invite the date into his or her home for a cocktail or a cup of coffee. Although interest in sexual activity may be implied by the invitation – the indirectness of the invitation softens potential harm to the individual’s sexual confidence and self-esteem if the invitation is declined. The recipient of such a veiled sexual advance may conceivably interpret the indirect invitation as a non-sexualized gesture. This may be particularly true for female recipients of sexual interest, as a multitude of studies suggest that, on average, women interpret cross-sex interaction less sexually than men (Abbey, 1982; Abbey & Melby, 1986; Henningsen, 2004; Henningsen, Henningsen, & Valde, 2006; Johnson, Stockdale, & Saal, 1991; Kowalski, 1992; Moore, 2002; Regan, 1997). Gender differences in interpretation of subtle indications of sexual interest may lead to situations in which men have higher expectations for sexual activity than women when women respond affirmatively to ambiguous invitations. As noted previously, these discrepant expectations are a known risk factor for sexual assault perpetration (Muehlenhard & Linton, 1987).

Further complicating the matter of sexual communication, multiple studies suggest recipients of sexual advances typically do not offer consent in the form of a straightforward verbal utterance of willingness (e.g., “Yes, I am willing to have sex with you”). The most common way individuals indicate internal feelings of willingness to engage in sexual activity is through non-verbal behavior (Byers & Heinlein, 1989; O’Sullivan & Beyers, 1992; Beres, Herold, & Maitland, 2004), such as moving closer to the person, reciprocating the sexual behavior, or helping their partner advance the level of intimacy (e.g., undressing self or partner). College students endorse using both direct and indirect forms of verbal and nonverbal behavior

to indicate consent to sexual activity with their partner (Hickman & Muehlenhard, 1999; Vannier & O'Sullivan, 2011). Byers and Heinlein (1989) found that couples reported most frequently consenting to their partner's initiation of sexual activity non-verbally, simply by engaging in the given activity with their partner.

An area in need of further research is passive responding to sexual initiation. Many college women report situations in which they have responded to sexual advances with passivity (e.g., not physically or not saying "no"; Hickman & Muehlenhard, 1999). Although these responses were endorsed as consent behavior by Hickman and Muehlenhard's sample, the literature on sexual assault indicates that silence and non-resistance are frequent responses to sexual situations in which the possibility of consent is invalidated by coercion (Galliano, Noble, Travis, & Puechl, 1993), particularly if the victim is intoxicated (Davis, George, & Norris, 2004). Thus, a great deal of caution should be employed in considering passivity a form of sexual consent – particularly in the absence of other contextual information (see Lim & Roloff, 1999 for an overview of perspectives regarding standards of consent). Further research is needed to understand perceptions of passive responding by those initiating sexual activity.

### **Dispositional Risk Factors in Male Perpetrators of Acquaintance Rape**

The vast majority of acquaintance rape perpetrators are men and approximately 90% of victims are women (Catalano, 2004). Extant literature suggests that repeat perpetrators of acquaintance rape exhibit a characteristic personality profile. In particular, they are more likely to exhibit global disregard for others (Baxter, Marshall, Barbaree, Davidson, & Malcolm, 1984; Hall, Graham, & Shepherd, 1991), have high acceptance of interpersonal aggression (Muehlenhard & Linton, 1987), and have a history of various forms of antisocial behavior

(Abbey & McAuslan, 2004; Knight & Prentky, 1990). They are also likelier to be impulsive (Prentky & Knight, 1986) and less empathic (Lindsey, Carlozzi, & Eells, 2001) than non-offenders. More specifically, perpetrators tend to endorse exaggerated gender role stereotypes and assume attitudes that normalize the occurrence of sexual aggression against women and trivialize its consequences (Abbey McAuslan, Zawacki, Clinton, & Buck, 2001; Koss, Leonard, Beezley, & Oros, 1985; Lisak & Roth, 1988; Malamuth, 1986; Rapaport & Burkhart, 1984). In extreme forms, these attitudes may glorify male sexual aggression, and implicitly or explicitly blame rape victims for violence committed against them (Burt, 1980).

Although research suggests a particular personality profile of sexual-assault perpetrators, the sheer prevalence of acquaintance rape suggests that statistically it's unlikely that only men with psychopathic tendencies perpetrate such assaults. Antisocial personality disorder, characterized by the Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000) as a "pervasive pattern of disregard for and violation of the rights of others" (p. 706) has a lifetime prevalence of approximately 3.6% in men (Compton, Conway, Stinson, Colliver, & Grant, 2005). The same low rates are found when examining psychopathic traits – only 3.7% of men score within an at-risk range on measures of psychopathy in a community sample (Coid, Yang, Ullrich, Roberts & Hare, 2009). In contrast, up to 15% of college men acknowledge forcing sexual intercourse on a partner, casual date, or acquaintance at least once (Rapaport & Burkhart, 1984). Further, 35% of college men report a lifetime prevalence of sexual coercion, operationalized as some form of forced sexual contact or verbal coercion of a partner (Abbey & McAuslan, 2004). Alarming, approximately one-third of men report having ignored their partners' sexual refusal (Rapaport & Burkhart, 1984). These estimates are higher than one might expect if only men with antisocial disposition utilize

sexually coercive strategies – especially considering that not all men with antisocial syndromes perpetrate acquaintance rape or other forms of sexual coercion.

Recent studies suggest offender heterogeneity in disposition and perpetration pattern of men who report perpetration of acquaintance rape. For example, Abbey and McCauslan's (2004) longitudinal findings demonstrated that some men perpetrated sexual assault on one or two occasions, while some endorsed repeated sexual assault. The former subset of men fell between non-offenders and repeat offenders in terms of their expressed hostility toward women and rape-supportive beliefs. They also tended to express remorse for their actions, described the incidents as negative experiences from which they learned, and held the other party less responsible for the incident. These results suggest that propensity to utilize sexual coercion exists on a continuum, and that even individuals with more typical levels of interpersonal responsibility may exhibit sexually aggressive behavior in particular circumstances. More complex models of sexual offending suggest that acquaintance rape is multiply determined, and that perpetrators are impelled to varying degrees by a variety of factors; including immediate affect, sexual arousal, and potentially ambiguous situational cues that lead to misattribution errors or cognitive justification for aggression (Hall & Hirschman, 1991; Malamuth, 1996). As noted by Abbey and McCauslan (2004), incidents of sexual offense may require "a combination of a man's predisposition to commit sexual assault and circumstances in which he feels it is acceptable to act on the predispositions" (p. 279). Similarly in regard to perceptions of sexual consent, Lim and Roloff (1999) suggest three factors influencing judgment of consent: namely, "the explicit nature of the communication cues, the features of the context in which the cues occurred, and characteristics of the third party" (p. 5).

## The Current Study

In the current study, multilevel modeling is used to examine the influence of situational and dispositional factors on men's perceptions of sexual wantedness and sexual consent in hypothetical sexual scenarios. Situational characteristics included category of sexual communication (i.e., consent, refusal, passivity), as well as modality of communication (i.e., verbal v. non-verbal). Other situational factors (discussed in detail below) were chosen because extant research has shown these factors are frequently construed as indicators of sexual intent and have been shown to heighten third-party perceptions of sexual assault victim "responsibility" for assault in vignette studies. Vignette analysis is commonly used to research sexual assault scenarios due to the obvious ethical limitations of studying actual sexual aggression. However, to the author's knowledge vignette methodology has not been employed to examine men's "first-person" construal of women's sexual wantedness and sexual consent. The current study also advances our understanding of men's interpretation of sexual communications by using multi-level modeling to simultaneously examine a wide breadth of contextual variables and dispositional moderators than are present in any existing vignette studies, better reflecting the complexity of actual sexual situations.

Based on a review of extant literature, the following dimensions are included as perceived indicators of the woman's sexual availability: [a] *Female Attire* (Maurer & Robinson, 2008; Moor, 2010; Muehlenhard & Linton, 1987; Whatley, 2005; Workman & Freeburg, 1999), [b] *Female Sexual History* (Cohn, Dupuis, & Brown, 2009; Kanin, 1985), [c] *Alcohol Consumption* (Abbey & Harnish, 1995;; Sims, Noel, & Maisto, 2007), [d] *Relationship Sexual History* (Goodchilds & Zellman 1984; Kanin, 1985; Kirkwood & Cecil, 2001; Monson, Langhinrichsen-Rohling, & Binderup, 2000; Shotland, 1989), and [e] *Intimacy Attained*

(Muehlenhard & Linton, 1987; Van Wie & Gross, 2001). Finally, women's verbal and non-verbal sexual consent, sexual refusal, or passive responding is systematically varied; guided by empirically-based understandings of sexual consent and refusal communication in college students (Hickman & Muehlenhard, 1999; Jozkowski, 2011; Jozkowski, Sanders, Peterson, Dennis, & Reece, 2014).

Participant personality and attitudinal characteristics that heighten or reduce risk of sexual assault were then examined for any direct or moderating role. We hypothesize that these characteristics could influence sexual assault perpetration via their impact on men's construal of whether sexual activity is wanted or consented to. The following robust predictors of acquaintance rape perpetration are included in analyses: [a] *Antisociality* (Calhoun, Bernat, Clum, & Frame, 1997; Hall, Graham, & Shepherd, 1991; Lalumiere & Quinsey, 1996), [b] *Empathy* (DeGue, DeLillo, & Scalora, 2010; Wheeler, George, & Dahl, 2003), [c] *Hostile Sexism* (Rapaport & Burkhart, 1994; Abbey & McAuslan, 2004), [d] *Rape Myth Acceptance* (Rapaport & Burkhart, 1994; Abbey & McAuslan, 2004), and [e] *Hypermasculinity* (Hannan & Burkhart, 1993; Mosher & Anderson, 1986).

I hypothesized that situational cues for wantedness will increase perceptions of sexual consent regardless of actual consent or refusal behavior. That is, distal cues of sexual "wantedness" will be construed as implicit indications of consent. Further, I hypothesized that men high in antisociality, hostility toward women, rape-supportive beliefs, and hypermasculinity will have higher perceptions of sexual wantedness and sexual consent, regardless of explicit consent/refusal communication, particularly in more ambiguous sexual situations (i.e., when hypothetical date is depicted responding passively). In contrast, I hypothesize that men high in

empathy and perspective-taking will be more sensitive to refusal cues, despite indirect indicators of sexual wantedness.

## **Methods**

### **Participants**

Aspects of the university setting, such as sudden decrease in parental supervision, increase in independence, increased consumption of alcohol, and potential presence of peer groups with “rape-supportive” attitudes make college years particularly risky for young adults in terms of involvement in sexually coercive situations (Bannon, Brosi, & Foubert, 2013; Flack, Caron, Leinen, Breitenbach, Barber, Brown, Gilbert ... et al., 2008; Humphrey & White, 2000). Thus, university students were recruited for participation in the current study. Because the preponderance of sexual assault is perpetrated by males with female victims, only heterosexual college men were sampled. One hundred and forty-five male, heterosexual university students completed the study. Participants ranged in age from 19-34, with a mean age of 20.4 ( $SD=2.26$ ); they were primarily Caucasian (92%). See Table 1 for a summary of sample demographic characteristics.

### **Measures**

**Demographic questionnaire.** The demographic questionnaire collected basic information including participants’ age, ethnicity, educational level, work status, relationship status, current relationship length (if applicable), and fraternity membership.

**Sexual history questionnaire.** As extant research suggests that men who repeatedly perpetrate acquaintance rape begin having sex earlier and have a higher lifetime history of sexual

partners (Abbey, McAuslan, & Ross, 1998; Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001), some information regarding participant sexual history was collected. Items included age at first sexual intercourse, lifetime number of sexual partners, number of partners since college, and number of sexual partners in the past 12 months.

**Social desirability.** A shortened version of the Crowne-Marlowe Social Desirability scale (CMSDS; Crowne and Marlowe, 1960) was administered to determine participants' propensity to engage in positive impression management during social interaction (Ballard, 1992). This measure was used to control for positive impression response bias, given the potential for social desirability to play a role in participants' report of their perceptions. The measure contains 13 true or false questions ( $1 = True; 2 = False$ ) assessing participants' willingness to admit to common socially undesirable behaviors (e.g., *I can remember "playing sick" to get out of something*). The CMSDS-SF has demonstrated acceptable reliability in a university sample ( $\alpha = .70$ ; Ballard, 1992). In the current sample, item averages on the CMDS ranged from 1 to 2 and yielded a mean of 1.47 ( $SD = .27; \alpha = .82$ ).

**Vignette questionnaire.** Participants each completed 6 out of a pool of 576 vignette questionnaires presented semi-randomly. The questionnaires include a hypothetical scenario describing a situation in which sexual activity might be expected according to prevalent social scripts (i.e., being alone in one's home with a woman after a date; Eaton & Rose, 2011; Eaton & Rose, 2012; Sakaluk, Todd, Milhausen, & Lachowsky, 2014). In each scenario, the individual will be described as a girl that the participant finds very attractive and with whom he is really hoping to have sex. Six aspects of the scenario are systematically varied. *Female Attire* consisted of two levels; the date was described as either (a) pretty and wearing a nice blouse and skirt, or (b) sexy and wearing a short skirt and blouse that reveals her cleavage. *Female Sexual History*



included three levels, depicting that (a) the date has not had sex with anyone else, (b) has had sex with a previous boyfriend, or (c) has had casual sex with several men since beginning college. *Alcohol Consumption* had two levels; (a) no mention of alcohol or (b) several drinks consumed by both people during the date. *Relationship Sexual History* had two levels; (a) the participant has had sex with the woman before, or (b) he has not had sex with her previously. *Intimacy Attained* had three levels; (a) none, (b) “making-out” with clothes on, or (c) engaging in oral sex with no clothes on. In total, eight different levels of sexual consent/refusal behavior were possible. There were three possible levels of consent behavior; (a) non-verbal consent; “pulls you closer to her,” (b) verbal consent; “says ‘I want you,’” (c) combined consent; “pulls you closer to her and says ‘I want you,’”. Likewise, there were three possible levels of sexual refusal; (d) non-verbal refusal; “pushes away from you” (e), verbal refusal, “says ‘Let’s not do this right now,’” (f) combined refusal; “pushes away from you and says ‘Let’s not do this right now.’” Finally, two different descriptions of passive responding were possible; (a) “tenses up and doesn’t say anything,” and (b) “stops responding but doesn’t resist you in any way.” In all, there were 576 possible permutations of vignette scenarios. Finally, the name of the female varied by vignette; the top 40 female baby names from 1994 were selected for use in the vignettes in attempt to increase ecological validity.

After reading the vignettes, participants completed a short questionnaire assessing their perceptions of the hypothetical situation. Participants’ perceptions of *Sexual Wantedness (SW)* were assessed with one item Likert scale item asking participants agreement with the statement: “Your date wants to continue the sexual interaction;” (1 = *Strongly Disagree*; 7 = *Strongly Agree*). They were also asked to rank their perception of the extent to which their date (a)

communicated willingness to continue the sexual interaction (*Consent to Continue; CTC*) and (b) communicated willingness to have sex (*Consent to Sex; CTS*) using the same Likert scale.

**Antisociality.** The Antisocial Features scale of the Personality Assessment Inventory (PAI; Morey, 1991) was used to assess antisocial traits. The scale consists of three subscales that assess different aspects of antisociality; Antisocial Behaviors (e.g., *I've done some things that weren't exactly legal*), Egocentricity, (e.g., *I'll take advantage of others if they leave themselves open to it*), and Stimulus-Seeking (e.g., *I get a kick out of doing dangerous things*). The scales have demonstrated acceptable reliability in college samples (Morey, 1991). Participants responded on a 4-point Likert scale (1 = *Not at all true*; 4 = *Extremely true*). Higher scores on the PAI indicate higher levels of antisociality. Item averages ranged from 1.08 to 3.13 and yielded a mean of 1.85 ( $SD = .43$ ). The measure demonstrated good internal reliability with the current sample ( $\alpha = .87$ ).

**Empathy.** The Interpersonal Reactivity Index (IRI; Davis, 1980) is used to measure empathy and use of perspective-taking. Participants responded to items on a 5-point Likert scale (1 = *Not at all like me*; 5 = *Just like me*). The Empathic Concern (EC) subscale of the IRI measures the individual's self-reported feelings of warmth and compassion for others' distress and negative experiences (e.g., *When I see someone being taken advantage of, I feel kind of protective toward them*). The Perspective-Taking (PT) subscale measures a dispositional tendency to attempt to understand the viewpoint of others and take such viewpoints into consideration when making decisions (e.g., *Before criticizing somebody, I try to imagine how I would feel if I were in their place*). On the global scale, item averages ranged from 2.43 to 5 and yielded a mean of 3.65 ( $SD=.48$ ). The global measure demonstrated good reliability in the current sample ( $\alpha=.80$ ).

**Hostile attitudes toward women.** The Hostile Sexism Scale (HS) is a component of the Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996) consisting of 11 items designed to assess negative attitudes and stereotypes about women (e.g., *Women seek to gain power by getting control over men*). Participants responded on a 6-point Likert scale (1 = *Strongly Disagree*; 6 = *Strongly Agree*). Item averages ranged from 1.55 to 6 and yielded a mean of 3.51 ( $SD = .80$ ). The measure demonstrated good internal reliability in this sample ( $\alpha = .83$ ).

**Rape-supportive beliefs.** The Illinois Rape Myth Acceptance Scale – Short Form (IRMA-SF; Payne, Lonsway, & Fitzgerald, 1999) is a 20-item abbreviated measure that assesses attitudes regarding rape used to justify sexual violence (e.g., *A lot of women lead a man on and then they cry rape*). Participants responded on a 6-point Likert scale (1 = *Strongly Disagree*; 6 = *Strongly Agree*). Item averages on this scale ranged from 1 to 6 and yielded a mean of 2.14 ( $SD = .79$ ). The IRMA-SF demonstrated good reliability in the current sample ( $\alpha = .92$ ).

**Hypermasculinity.** The Auburn Differential Masculinity Inventory (ADMI; Burk, Burkhart, & Sikorski, 2004) is a 60-item measure that assesses five dimensions of hypermasculinity, or exaggerated male gender role beliefs. The dimensions include hypermasculinity (e.g., *Women, generally, are not as smart as men*), sexual identity (e.g., *My attitude regarding casual sex is “the more the better”*), dominance and aggression (e.g., *I believe sometimes you’ve got to fight or people will walk all over you*), conservative masculinity (e.g., *If I had a son, I’d be sure to show him what a real man would do*), and devaluation of emotion (e.g., *I think men who cry are weak*). Participants responded on a 5-point Likert scale (1 = *Strongly Disagree*; 5 = *Strongly Agree*). Item averages on the global measure ranged from 1.35 to 4.65 and yielded a mean of 2.64 ( $SD = .55$ ). The full scale of the inventory demonstrated good reliability in the current sample ( $\alpha = .95$ ).

## **Procedures**

All measures were completed online and data was collected anonymously. Participants were recruited through Auburn University's Sona-Systems website. All were at least 19 years of age and provided informed consent in order to participate in the study. Participants first completed the demographic and sexual history questionnaire, followed by the measure of social desirability. They then completed six semi-random vignette questionnaires. All participants completed two consent condition vignettes, two refusal condition vignettes, and two passivity condition vignettes. The order of the presentation of conditions (i.e., consent, refusal, passivity) was random, although the two vignettes from each respective condition always appeared consecutively. The two vignettes drawn from each condition (i.e., consent, refusal, or passivity) were selected randomly from the pool of possible vignettes within each respective condition. Finally, participants completed the personality questionnaires, also presented in randomized order. Vignette questionnaires were administered before personality questionnaires to reduce potential effects of fatigue and implicit biasing of other measures. Participants were compensated for their time with course extra credit.

**The multilevel model.** Multilevel modeling (MLM) was used to test the proposed hypotheses. For a full explication of MLM, see Singer and Willett (2003). Briefly, MLM comprises linear regression that is modified for application with "nested" data. In the proposed sample, multiple observations nested within vignettes are nested within participants, violating statistical assumptions of independence of observations. MLM adjusts for the biasing effects of correlated errors inherent to such non-independent data (Hayes, 2006) that may lead to inaccurate significance testing (Kenny, 1995). Moreover, MLM separates the variability in the

individual outcome attributable to multiple levels of the grouping variables. In this case, variability in the outcome variables can be attributed to aspects of the vignette and the individual. The two sources of variance can be used as outcomes to be predicted by candidate explanatory variables.

Multilevel models produce two kinds of coefficient estimates: fixed effects and random effects. Fixed effects estimate a population average intercept (represented by the model constant) and slope (represented by the regression weight) across individuals. Tests of significance for fixed effects essentially determine if the average intercept and average slope are different than zero. Although informative, the average values that the fixed effects produce are unlikely to characterize all individual cases. That is, there is often unexplained variance (i.e., error variance) around the fixed effect estimates. The amount of variance surrounding the outcome intercepts and slopes is referred to as the “random effect.” Random effects can be tested to determine if the amount of variance around the fixed effect is significantly different than zero. Unexplained error variance exhibited by significant tests of random effects justifies the addition of predictors into the model. The utility of adding predictors to the model is determined by examining Pseudo  $R^2$ , the proportional reduction of unexplained variance around each parameter.<sup>1</sup>

A model-building approach was taken for the current analyses. The data are modeled using a three-intercept approach, with each intercept representing a separate outcome (i.e., Sexual Wantedness [SW], Consent to Continue [CTC], and Consent to Sex [CTS]). Each variable added to the model is multiplied by the outcome variable so that the effects for each can be estimated separately. As mentioned previously, although nesting multiple outcomes within

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<sup>1</sup> Pseudo  $R^2$  is computed by subtracting regression estimate of the hypothesized model from the regression estimate of baseline (or comparison) model, and dividing the difference by the baseline model estimate. This statistic produces a “proportional reduction in residual variance” as predictors are added to the model (Singer & Willet, 2003, p. 103).

vignettes creates non-independent errors across observations, MLM adjusts for the biasing effects of correlated errors (Hayes, 2006).

The preliminary model (i.e., the unconditional means model) specifies no predictors and is the equivalent of random effects ANOVA. In this model, the intercept for each outcome represents the grand mean, the average value of each criterion across all vignettes for all individuals. Subsequent models examine the fixed effects of vignette characteristics and participant characteristics on each criterion. Finally, interactions of key variables are tested.

## Results

### Preliminary Model Analysis

**Model specification.** We tested a three-level model in which multiple outcomes (Level 1) are nested within vignettes (Level 2), which are nested within participants (Level 3). The preliminary model estimates average response for each outcome (i.e., perceptions of Sexual Wantedness [SW], Consent to Continue [CTC] and Consent to Sex [CTS]) across all individuals and all vignettes. Outcome was specified as a repeated measure, given the high likelihood of significant correlation. Control variables were entered into the model first, followed by primary variables of interest. The final model estimates the effect of each vignette characteristic and participant dispositional quality in predicting perceptions of Sexual Wantedness, Consent to Continue, and Consent to Sex, while holding all other variables constant. We ran all models specifying an unstructured covariance structure, which makes no assumptions about the nature of the variance unexplained by the predictors and allows errors to correlate freely. Note that the only parameters in the models set to vary randomly were the intercepts for each criterion. That is,

only an individual's average rating across outcomes was allowed to vary around the grand mean. Effects for all other model parameters were fixed.

All continuous variables were standardized to aid with interpretation. Regression estimates can be interpreted as the expected change in perception given a one standard deviation change in the predictor variable for continuous variables. This procedure was selected so that regression weights can be easily compared across predictors. For categorical variables, intercepts can be interpreted as the estimate for that effect when the given variable is at 0.

**Preliminary model.** The preliminary model produces fixed effects for the intercepts, as well as the random effects for each. It also provides a baseline by which random variance explained by the addition of hypothesized predictors can be estimated. For this data, the significance tests of intercepts for all three outcomes are not meaningful (SW,  $b = 3.89$ ,  $t = 36.44$ ,  $p < .001$ ; CTC,  $b = 3.73$ ,  $t = 34.50$ ,  $p < .001$ ; CTS,  $b = 3.41$ ,  $t = 32.31$ ,  $p < .001$ ). As previously noted, however, the estimate for each intercept can be interpreted as the average response across all vignettes for all participants for that outcome. The preliminary model's random effects demonstrated significant variability for each outcome (SW,  $b = 4.59$ , Wald  $Z = 19.13$ ,  $p < .001$ ; CTC,  $b = 4.85$ , Wald  $Z = 19.03$ , and  $p < .001$ ; CTS,  $b = 4.40$ , Wald  $Z = 17.96$ ,  $p < .001$ ), suggesting significant unexplained variance that justifies the addition of situational and dispositional factors into the model. Estimates for covariance parameters for this model are listed in their entirety in Table 3.

### **Hypothesized Model Analysis**

**Control predictors.** The Crowne-Marlowe Inventory was entered into the model as a social desirability control variable along with age, relationship status, fraternity membership and

number of sexual partners across the lifespan. The fixed effects for these variables indicated that none accounted for significant variance in outcomes, so all were removed from future models with the exception of the social desirability measure (at baseline: SW,  $b = -.34$ ,  $t = -.70$ ,  $p = .48$ ; CTC,  $b = -.21$ ,  $t = -.43$ ,  $p = .67$ ; CTS,  $b = -.34$ ,  $t = -.71$ ,  $p = .48$ ).

**Hypothesized predictors.** Situational, dispositional, and consent/refusal communication predictors were then simultaneously entered into the model. The effects for consent, refusal, and passive responding are considered first, along with the effect of vignette depiction of verbal versus non-verbal consent/refusal communication. Then, contextual variables conceptualized as indirect indicators of sexual wantedness (i.e. Female Attire, Female Sexual History, Alcohol Consumption, Relationship Sexual History, and Intimacy Attained) and dispositional variables are examined.

**Sexual communication: coding decisions.** To analyze the impact of Consent Behavior on participant responding, the 8 levels of this variable were broken into component categorical variables. The first component is *Communication Category*, which represented the immediate communication of consent/refusal depicted in the vignette and was coded: *Refusal* = 0, *Passivity* = 1, and *Consent* = 2. The second component, *Communication Modality*, identified each vignette as: *Verbal* = 0 or *Non-Verbal* = 1.<sup>2</sup> Passivity conditions were coded Non-Verbal (0).

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<sup>2</sup> Initially, the second component of the consent behavior variables was termed Communication Modality. It was coded using two binary variables coded 1 if the condition is met; the first represented *behavioral* communication (e.g., “pushes away from you”). The second represented *combined* communication (e.g., “pushes away from you and says, “Let’s not do this right now”). Estimates for *verbal* only mode of communication (e.g., says “Let’s not do this right now”) were estimated when both communication modality variables are at 0. Of note, passivity conditions were coded as a *behavioral* mode using this coding system – potentially adding statistical noise to the behavioral category. Initial analyses demonstrated that the impact of *behavioral* modes of communication interacted significantly with communication category, decreasing perceptions of CTC and CTS when compared to *verbal* modes (CTC,  $b = -.40$ ,  $t = , p < .001$ ; CTS,  $b = .34$ ,  $t = 5.12$ ,  $p < .001$ ). However, there was no significant effect of *combined* mode over verbal communication alone. Stated differently, the mode most consistently impactful was verbal, as adding a behavioral component to verbal communication did not significantly change perceptions of consent. Thus, the verbal and combined levels were collapsed into the current categorical variable - Verbal (*Verbal* = 0 or *Non-Verbal* = 1).



**The impact of communication category and modality.** Not surprisingly, communication category had a strong impact across outcomes, with increasing values of all three outcomes as conditions moved from refusal to passivity and passivity to consent (*SW*,  $b = 1.70$ ,  $t = 16.13$ ,  $p < .001$ ; *CTC*,  $b = 1.56$ ,  $t = 14.12$ ,  $p < .001$ ; *CTS*,  $b = 1.11$ ,  $t = 9.96$ ,  $p < .001$ ). The fixed effect of verbal communication modality was significant for Consent to Continue ( $b = .40$ ,  $t = 2.25$ ,  $p < .05$ ), but not Sexual Wantedness or Consent to Sex ( $b = .30$ ,  $t = 1.79$ ,  $p = .07$  and  $b = .26$ ,  $t = 1.46$ ,  $p = .15$ , respectively). It's possible that the combination of verbal conditions with the verbal and behavioral combined conditions introduced statistical noise to this condition, weakening potential effects. The interaction between *Verbal* and *Communication Category* was significant for Consent to Continue ( $b = .29$ ,  $t = 2.11$ ,  $p < .05$ ) and Consent to Sex ( $b = .53$ ,  $t = 3.74$ ,  $p < .001$ ), indicating that mode of communication has unique impact on perceptions, depending on communication category (i.e., consent versus refusal). Interaction effects were plotted for all both significant interactions (see Figures 1 and 2). For both Consent to Continue and Consent to Sex, modes of communication that included a verbal component, on average, increased men's perceptions that their hypothetical date has communicated willingness to continue the interaction, and the reverse is true for refusal. Stated differently, a verbal component to the communication does appear to make the message intended in the communication clearer in both consent and refusal conditions. Interestingly, for Consent to Sex, a verbal component of communication has a pronounced effect on perceptions that women have indeed communicated willingness to engage in sexual intercourse. In contrast, behavioral and verbal modes of communication are perceived more comparably in terms of perception of sexual refusal.

**Indirect indicators of sexual wantedness.** As noted previously, Female Attire, Relationship Sexual History, and Alcohol Consumption all had two levels, while Female Sexual

History and Intimacy Attained each had three. For all variables, the level theoretically *least* likely to be perceived as Sexual Wantedness was coded as 0. Estimates for fixed effects were non-significant for Female Attire, Female Sexual History, and Alcohol Consumption for all outcomes, demonstrating that these situational factors had no systematic impact on participants' perceptions of Sexual Wantedness, Consent to Continue, and Consent to Sex (non-significant estimates listed in Table 2). Intimacy Attained was a powerful predictor across all outcomes, with increased levels of intimacy leading to higher perceptions of Sexual Wantedness ( $b = .31, t = 4.84, p < .001$ ), CTC ( $b = .37, t = 5.46, p < .001$ ), and Consent to Sex ( $b = .56, t = 8.32, p < .001$ ). Relationship Sexual History did have a significant impact on perceptions of Sexual Wantedness ( $b = .22, t = 2.14, p < .05$ ) and perceived Consent to Continue ( $b = .25, t = 2.31, p < .05$ ), but not Consent to Sex ( $b = .14, t = 1.29, p = .20$ ). Effects were in the hypothesized direction, with past sexual history predicting higher perceptions of sexual wantedness and sexual consent. In summary, prior sexual history with the woman and higher levels of immediate physical intimacy increase men's perceptions of women's sexual wantedness and consent to continue the interaction, whereas only higher intimacy increase men's perceptions that women have consented to sex.

**Dispositional predictors.** Contrary to project hypotheses, antisociality and hostile sexism were not predictive for any outcome and were removed for the purpose of simplifying the model (antisociality: SW,  $b = .01, t = -.13, p = .90$ , CTC,  $b = -.07, t = .47, p = .64$ , and CTS,  $b = -.04, t = .64, p = .52$ ; hostile sexism: SW,  $b = .02, t = .17, p = .89$ , CTC,  $b = -.01, t = -.06, p = .95$ , and CTS,  $b = -.01, t = -.06, p = .95$ ). Removing these parameters did not change the results of significance testing for any other estimates. Endorsement of rape myth acceptance (RMA) had the strongest and most consistent effect on perceptions of wantedness and consent, with higher

rape-supportive beliefs predicting higher perceptions on all three outcomes, as hypothesized (SW,  $b = .31, t = 3.79, p < .001$ ; CTC,  $b = .37, t = 4.16, p < .001$ ; and CTS,  $b = .30, t = 3.44, p < .001$ ). Additionally, the impact of hypermasculinity was significant for Sexual Wantedness ( $b = .22, t = 2.51, p < .05$ ) in the hypothesized direction. It was not significant for either consent variable (CTC,  $b = .18, t = 1.94, p = .05$ ; CTS,  $b = .17, t = 1.89, p = .06$ ). Interpersonal Reactivity was very specific in its impact on responding, with a significant impact on Consent to Sex ( $b = -.16, t = -1.97, p < .05$ ), but not on Sexual Wantedness ( $b = -.01, t = -.14, p = .89$ ) or Consent to Continue ( $b = -.08, t = -.96, p = .34$ ). That is, men who endorse higher levels of empathy and perspective-taking appear to exhibit more caution in interpreting a situation as consensual, all other factors held equal.

**Interactions of situational and dispositional variables.** Finally, interaction effects for rape myth acceptance with both Intimacy Attained and Communication Category were modeled. These particular interactions were chosen because they had the strongest main effects across dispositional and situational predictors. There were no significant interaction effects for rape myth acceptance and Intimacy Attained, and these effects were dropped from the model in the interest of simplicity. The interaction of rape myth acceptance with Communication Category was significant for Sexual Wantedness ( $b = -.17, t = -2.9, p < .01$ ) and Consent to Continue ( $b = -.14, t = -2.23, p < .05$ ), but not Consent to Sex ( $b = -.10, t = -1.48, p = .14$ ). Plots of these interaction effects are depicted in Figures 3 and 4. Briefly, it appears that men high in rape myth acceptance perceive higher sexual wantedness for the consent and refusal conditions, but lower sexual wantedness in passivity conditions compared to men scoring lower on this trait. In regard to consent to continue, men high in rape myth acceptance are perceiving more consent in all conditions compared low scorers. The difference is slightly more more marked in the refusal

condition, which likely accounts for the significant interaction effect. The estimates for each parameter in the final model are presented in Table 2.

## **Discussion**

The current study used multi-level modeling to examine the impact of situational characteristics, consent communication, and participant disposition on perceptions of women's sexual wantedness and sexual consent in hypothetical sexual situations. Interactions between key situational and dispositional variables were examined, guided by initial findings of significant main effects.

### **Consent and Refusal Communication.**

Sexual consent, sexual refusal, and passivity conditions generated for the study had the expected impact on perceptions of wantedness and consent, with consent conditions leading to the highest perceptions of sexual wantedness, consent to continue the interaction, and consent to sex – followed by passivity and then refusal. We also found that the inclusion of a verbal component to sexual communication was influential to interpretations of consent to continue the interaction. Essentially, the perception of consent or refusal to continue the interaction was more pronounced in comparison to non-verbal communication. More specifically, verbal communication decreased perceptions of consent to continue in refusal conditions, but increased perceptions in consent conditions. Verbal communication functioned slightly differently for perceptions of consent to sexual intercourse. A verbal component tended to increase men's perceptions of consent to sex in consent conditions. In refusal conditions, verbal and non-verbal modalities were as effective in portraying refusal. In the current sample, it appears that verbal

communication does have a clarifying effect in the communication of consent and refusal. However, multiple studies suggest that non-verbal modality is the most common method for communicating sexual consent in casual encounters, as well as well-established relationships (Byers & Heinlein, 1989; O'Sullivan & Beyers, 1992; Beres, Herold, & Maitland, 2004). A promising aspect of the current finding is that men appear to perceive both verbal and non-verbal modes of communication similarly when it comes to refusal of sexual intercourse. So, while a verbal "yes" appears helpful in communicating consent, a verbal "no" does not appear necessary in communicating refusal, at least in this sample. This finding substantiates existing qualitative research that many men do demonstrate sophisticated understandings of less direct or explicit sexual refusal communication (Beres, 2010; O'Byrne, Rapley, & Hansen, 2006).

### **Situational Factors Influencing Perceptions of Sexual Wantedness and Consent**

Several other contextual factors influenced perceptions of wantedness and consent. Depictions of higher levels of intimacy consensually attained within the scenario had the strongest effect, increasing perceptions of wantedness and consent across outcomes. This finding is consistent with literature suggesting that heterosexual intimacy follows an expected social script (see Geer and Broussard, 1990), and that increases in physical intimacy along the heterosexual social script leads to heightened expectations that the interaction will culminate in intercourse (Ryan, 2011). Indeed, behaviors that college students report using as indications of consent often include these lower-level sexual interactions (e.g., content; Hickman & Muehlenhard, 1999; Jozkowski, Peterson, Sanders, Dennis, & Reece, 2013). However, current findings suggest that a global interpretation of lower levels of intimacy as consent to higher levels (or as consent to intercourse) likely contribute the cognitive errors/misattributions that

some models of sexual offending suggest play a large role in the justification of sexual coercion (Hall & Hirschman, 1991).

A related situational factor that appeared to have a similar influence on outcomes was the depiction of prior sexual history with the date. When the date was described as someone with whom the participant has had sex with before, perceptions of sexual wantedness and consent to continue the interaction increased. This finding is also consistent with prior research on the impact of relationship characteristics on perceptions of sexual consent (e.g., Humphreys, 2007). This variable may be operating in a similar fashion as the intimacy attained variable.

Specifically, prior sex with a dating partner likely leads to higher expectations that sex will occur in the immediate situation. In contrast with intimacy attained, however, prior sexual history did not increase participants' perceptions of consent to sex. In comparison with intimacy attained, the more distal nature of the sexual history variable in - conjunction with men's apparent caution in concluding that consent to sex has been given - may be contributing to the difference in this effect.

Contrary to study hypotheses; female attire, mutual use of alcohol, and the description of the date's sexual history did not influence either perceptions of sexual wantedness or either sexual consent outcome. This finding is interesting, as it is inconsistent with a number of studies demonstrating that these factors influence men's perception of women's sexual intent and increase third-party attribution of blame to victims in sexual assault vignettes. However, past vignette analyses of these factors have focused on only one or two situational variables at a time. However, the current study examines multiple situational factors simultaneously. As such, it is possible that although these factors may have an impact in isolation - this impact is lost in context of highly complex sexual interactions. Additionally, although these factors were not

influential in the current study, they may have a much stronger impact in real life scenarios. For example, the fictional consumption of alcohol in a vignette scenario likely has a much less powerful impact on perceptions of wantedness and consent than actual use of alcohol.

### **The Influence of Dispositional Variables**

Contrary to our hypotheses and the existing literature, antisociality and hostile sexism were not predictive of men's perceptions of sexual wantedness or sexual consent. Results of the current study may be influenced by sampling; however - antisociality and hostile sexism have been shown to be risk factors in more deviant samples of men incarcerated for sexual offenses (e.g., Baxter et al, 1984; Hall et al., 1991, Knight & Prentkey, 1991). Nevertheless, at least one longitudinal study has demonstrated that antisocial behavior and hostile attitudes toward women are also higher in college men who report repeat perpetration of sexual coercion (Abbey & McAuslan, 2004). As such, other differences in methodology may partially account for the difference in the current study. It's also plausible that - while we did not see an impact of these particular personality traits on men's perceptions of wantedness and consent - we would see an impact if the outcome variable of interest was participants' behavior. That is, men high in antisociality and hostile sexism may not have a skewed perception of sexual refusal, but utilize coercion to proceed with a sexual interaction without regard to this perception.

Conversely, interpersonal reactivity was a significant predictor lower likelihood of perceiving a given situation as consent to sexual intercourse. It appears that men with higher levels of empathic concern and perspective-taking interpreted consent to sexual intercourse more cautiously. It is possible that these men are more sensitive to the consequences for the other party in the case of miscommunication, and thus require more evidence before concluding that consent has indeed been communicated. This finding is consistent with past research demonstrating that

sexually aggressive men demonstrate less competence in recognition and understanding of negative emotional responses from female partners (Malamuth & Brown, 1994).

Of dispositional characteristics examined, rape myth acceptance was the most consistent and powerful predictor, heightening men's perception of sexual wantedness and consent across situations. Central components of the rape myth acceptance construct include the erroneous construal of aspects of women's behavior (e.g., using alcohol, dressing "suggestively") as legitimate permission to engage in sexual activity. The current study suggests that men with higher rape myth acceptance are starting at a higher baseline perception of consent. In fact, men with high rape myth acceptance may believe that the nature of the scenario itself – choosing to spend time in a private place after a date – is in itself an indication of a the woman's consent to engage in sexual behavior. That is, a component of the rape myth belief system is the assumption of consent in the absense of refusal behavior – rather than a standard of consent requiring an affirmative behavioral response (Lim & Roloff, 1999). A promising aspect of this finding is that, as a construct; rape myth acceptance represents a set of beliefs theoretically more responsive to education or intervention than stable personality traits such as antisociality.

Rape myth acceptance also exhibited interesting interactions with perceptions of sexual wantedness, particularly in scenarios depicting passive responding to sexual advances. Unexpectedly, men high in this belief viewed passive responding as less indicative of sexual wantedness, but more consensual in comparison to men with low rape myth acceptance. This finding is potentially reflective of some objectification or or disregard for the other in the situation – a view of the woman's sexual desire as less important in the determination of the acceptability of a sexual advance.



Interestingly, hypermasculinity also increased perceptions of sexual wantedness, but not consent to continue or consent to sex. Similarly to rape myth acceptance, this construct contains a sub-component of normalization of sexual aggression (e.g., *If a woman puts up a fight while we are having sex, it makes the sex more exciting*). It also contains a sub-component that captures sexual prowess as an important element of masculine identity (e.g., *My attitude toward casual sex is the more the better*). For men with high levels of hypermasculinity, sexual attainment and performance is an important element of esteem – which is one possible explanation for why this hypermasculinity is driving perceptions of sexual wantedness, specifically. This finding is reminiscent of theories that conceptualize sexual sexual aggression in response to sexual refusal as a narcissistic reaction (Bushman, Bonacci, Dijk, & Baumeister, 2003).

### **Strengths and Limitations**

A primary strength of the current study is the simultaneous examination a number of contextual and dispositional factors shown to influence perceptions of sexual intent on men's interpretation of the wantedness and consensuality of sexual situations. Although vignette methodology is used frequently in the study of social sexual scripts and sexual assault, most vignette analyses examine only one or two factors at a time. As the current study reflects, some of these factors may not hold as much weight when occurring in the context of a highly variable and complex sexual interaction. The current study allows for the determination of which factors are most influential when all other factors are held equal. The methodology employed in the current study also allows for the examination of the differential impact of context, disposition, and the interaction of these two sources of variance on a men's construals of sexual wantedness and sexual consent.

Although a male university sample is appropriate for the study of sexual perceptions of sexual consent, the sample is limiting in several ways. The current sample was homogenous in age, gender, sexual orientation, ethnicity, and socioeconomic level, limiting the generalizability of findings to other populations. Future studies should expand our understanding of women's determination of sexual consent and consent in same-sex sexual interactions. Additionally, the findings in this study may not generalize well to more diverse populations, including other populations known to have higher incidence of sexual assault and coercion (e.g., U.S. military, Turchik & Wilson, 2010). Finally, although it is helpful to understand how situational and dispositional factors influence men's perceptions of sexual wantedness and consent, more research is necessary in order to determine how these perceptions influence decision-making in sexual situations. Future research should seek to examine any unique mediating impact of these perceptions on the endorsement of sexually coercive behavior. For example, it's possible that some dispositional risk factors for sexual assault, such as rape myth acceptance, increase risk of sexual aggression via their impact on perceptions of consent; while other risk factors (e.g., antisociality) may increase risk via mechanisms other than perception of consent.

### **Conclusions**

The current study used multi-level modeling to examine the impact of situational characteristics, consent/refusal communication, and participant disposition on men's perceptions of women's sexual wantedness and sexual consent in hypothetical sexual scenarios. Several situational and dispositional determinants demonstrated a unique impact on wantedness versus consent outcomes. Situational factors outside of immediate consent/refusal communication – including higher levels of physical intimacy in the immediate situation and past sexual history –

impacted men's perceptions of consent. Men who endorsed higher rape-supportive beliefs were more likely to perceive a situation as both wanted and consensual, regardless of other factors. Men higher in hypermasculinity were more likely to view a given situation as wanted by the woman. The results substantiate existing models of sexual coercion that implicate rape-supportive belief systems as an element of sexual offending. The current study suggests that these belief systems may influence sexual coercion via their impact on men's determinations of consent.

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## Appendix

### Demographics and Sexual History

Age (type your answer in the following box)

\_\_\_\_\_years

#### Sex

- Male
- Female
- Other

#### Sexual Orientation

- Heterosexual
- Gay
- Bisexual
- Other, specify: \_\_\_\_\_

#### Ethnicity

- African American/Black/African Origin
- Asian American/Asian Origin/Pacific Islander
- European Origin/White
- Latino/Latina/Hispanic
- Other, specify: \_\_\_\_\_

#### Class

- Freshman
- Sophomore
- Junior
- Senior
- Other, specify: \_\_\_\_\_

#### Student Status

- Full-time
- Part-time

#### Work Status

- Full time
- Part time
- Not working

### **Fraternity Status**

- Currently a member of a campus fraternity
- Past member of a campus fraternity
- Have never been a member of a campus fraternity

### **Relationship Status**

- Single
- In a casual relationship (e.g., non-exclusive or short-term)
- In serious relationship (e.g., exclusive or long-term)
- Married
- Separated
- Divorced
- Widowed

**(If in a relationship) Are you currently cohabitating with your partner?**

- Yes
- No

**(If in a relationship) How long have you been with your current partner?**

- 1-3 months
- 4-6 months
- 7-9 months
- 10-12 months
- 1-3 years
- 4-6 years
- Other, please specify \_\_\_\_\_

### **Religious affiliation**

- Christian - Catholic
- Christian - Protestant
- Eastern Orthodox
- Hindu
- Islam
- Judaism
- Other, specify \_\_\_\_\_
- None

**Have you ever had vaginal sexual intercourse with a woman? (Sexual intercourse is defined here as penetration with the penis, however slight, and regardless of whether ejaculation was reached.)**

- Yes

- No

**(If yes to previous question)**

**How old were you the first time you had sexual intercourse? \_\_\_\_\_**

**With how many female partners have you had sexual intercourse in your lifetime?  
\_\_\_\_\_**

**With how many female partners have you had sexual intercourse in in the past 12 months? \_\_\_\_\_**

**With how many female partners have you had sexual intercourse since beginning college? \_\_\_\_\_**

#### **The Crowne-Marlowe Social Desirability Scale – Short Form**

For each of the following items, indicate if the statement is true or false of you. : (1) true (2) false.

1. I sometimes feel resentful when I don't get my way.
2. On a few occasions, I have given up doing something because I thought too little of my ability.
3. There have been times when I felt like rebelling against people in authority even though I knew they were right.
4. No matter who I'm talking to, I'm always a good listener.
5. I can remember "playing sick" to get out of something.
6. There have been occasions when I took advantage of someone.
7. I'm always willing to admit it when I make a mistake.
8. I sometimes try to get even rather than forgive and forget.
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of others.
12. I am sometimes irritated by people who ask favors of me.
13. I have never deliberately said something that hurt someone's feelings.

## Vignette Questionnaire

*As you read the following scenario, do your best to imagine yourself in the situation. Then, answer the questions that follow.*

You just spent an evening out with Amy, a girl you think is really attractive. You've been dating her for several weeks.

- (0) You think Amy looks really pretty. She's wearing a nice blouse and a skirt.
  - (1) You think Amy looks really sexy. She's wearing a short skirt and a blouse that shows her cleavage.
- 
- (0) You know that Amy's never had sex with anyone else before.
  - (1) You know that Amy's only had sex before with an ex-boyfriend that she dated seriously.
  - (2) You know that Amy has had casual sex with several guys since she's been in college.
- 
- (0) Although you haven't had sex with Amy, you're really hoping you'll get the chance to tonight.
  - (1) You've had sex with Amy before, and you're really hoping you'll get the chance to again tonight.
- 
- (0) No mention of alcohol.
  - (1) During your date, both of you had several drinks.

After your outing, the two of you go back to your place where you have some privacy.

- (0) After chatting for awhile, you're feeling really turned on, so you move toward Amy to kiss her.
- (1) After chatting for a while, you and Amy start kissing. After a few minutes of making-out you're feeling really turned on, so you start to reach under Amy's shirt.
- (2) After chatting awhile, you and Amy start making-out. Within a few minutes, the two of you are completely undressed and having oral sex. You're feeling really turned on, so you start to penetrate Amy's vagina with your penis.

In response, Amy

- (CC = 0, V = 0) pushes away from you.
- (CC = 0, V = 1) says "Let's not do this right now."
- (CC = 0, V = 1) pushes away from you and says "Let's not do this right now."
- (CC = 1, V = 0) tenses up, but doesn't say anything.
- (CC = 1, V = 0) stops responding to you, but doesn't resist in any way.
- (CC = 2, V = 0) pulls you closer to her
- (CC = 2, V = 1) says "I want you."
- (CC = 2, V = 1) pulls you closer to her and says "I want you."

\*CC = Communication Category; V = Verbal

**Vignette Example 0000000**

You just spent an evening out with Jessica, a girl you find very attractive. You've been dating her for several weeks. You think Jessica looks really pretty tonight. She's wearing a nice blouse and a skirt. You know that Jessica has never had sex with anyone else before. Although you haven't had sex with Jessica, you're really hoping you'll get the chance to tonight. After your outing, the two of you go back to your place where you have some privacy. After chatting for a while, you're feeling really turned on, so you move toward Jessica to give her a kiss. In response, Jessica pushes away from you.

**Vignette Example 1211221**

You just spent an evening out with Hannah, a girl you find very attractive. You've been dating her for several weeks. You think Hannah looks really sexy tonight. She's wearing a short skirt and a blouse that shows her cleavage. You know that Hannah has had casual sex with several guys since she's been in college. You've had sex with Hannah before, and you're really hoping you'll get the chance to again tonight. During your date, both of you had several alcoholic drinks. After your outing, the two of you go back to your place where you have some privacy. After chatting awhile, you and Hannah start making-out. Within a few minutes, the two of you are completely undressed and having oral sex. You're feeling really turned on, so you initiate sex by moving your penis into Hannah's vagina. In response, Hannah pulls you closer to her and says "I want you."

**Indicate how much you agree with the following statements.**

**Your date *wants to continue* the sexual interaction.**

1                      2                      3                      4                      5                      6                      7

Strongly  
Disagree

Strongly  
Agree

**Your date *has communicated willingness to continue* the sexual interaction.**

1                      2                      3                      4                      5                      6                      7

Strongly  
Disagree

Strongly  
Agree

**Your date *has communicated willingness to have sex with you*.**

1                      2                      3                      4                      5                      6                      7

Strongly  
Disagree

Strongly  
Agree

## Personality Assessment Inventory – Antisocial Subscale

Read each of the following statements and decide if it is an accurate statement about you. Give *your own opinion* of yourself. Please indicate your response using the following scale: (1) false, not at all true (2) slightly true (3) mainly true (4) very true.

### Antisocial Behavior (ANT-A)

1. I was usually well behaved at school.
2. I've deliberately damaged someone's property.
3. I've done some things that weren't exactly legal.
4. I used to lie a lot to get out of tight situations.
5. I like to see how much I can get away with.
6. I was never expelled or suspended from school when I was young.
7. I've never been in trouble with the law.
8. I've never taken money or property that wasn't mine.

### Egocentricity (ANT-E)

1. I've borrowed money knowing I wouldn't pay it back.
2. I'll take advantage of others if they leave themselves open to it.
3. I'll do most things if the price is right.
4. I can talk my way out of just about anything.
5. I don't like being tied to one person.
6. I don't like to stay in a relationship very long.
7. I look after myself first; let others take care of themselves.
8. When I make a promise, I really don't need to keep it.

### Stimulus-Seeking (ANT-S)

1. I get a kick out of doing dangerous things.
2. I do a lot of wild things just for the thrill of it.
3. My behavior is pretty wild at times.
4. If I get tired of a place, I just pick up and leave.
5. The idea of "settling down" has never appealed to me.
6. I like to drive fast.
7. I'm not a person who turns down a dare.
8. I never take risks if I can avoid it.

## **Interpersonal Reactivity Index**

Please indicate the degree to which the following statements are true of you on a scale of (1) does not describe me well; to (5) describes me very well.

### **Perspective-taking subscale:**

1. Before criticizing somebody, I try to imagine how I would feel if I were in their place.
2. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
3. I sometimes try to understand my friends better by imagining how things look from their perspective.
4. I believe that there are two sides to every question and try to look at them both.
5. I sometimes find it difficult to see things from the "other guy's" point of view.
6. I try to look at everybody's side of a disagreement before I make a decision.
7. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.

### **Empathic concern subscale:**

1. When I see someone being taken advantage of, I feel kind of protective toward them.
2. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
3. I often have tender, concerned feelings for people less fortunate than me.
4. I would describe myself as a pretty softhearted person.
5. Sometimes I don't feel sorry for other people when they are having problems.
6. Other people's misfortunes do not usually disturb me a great deal.
7. I am often quite touched by things I see happen.

## **Hostile Sexism Scale**

Below is a series of statements concerning men and women and their relationships in current society. Please indicate the degree to which you agree or disagree with each statement using the following scale: (1) disagree strongly; (2) disagree somewhat; (3) disagree slightly; (4) agree slightly; (5) agree somewhat; (6) agree strongly.

1. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."
2. Most women interpret innocent remarks or acts as being sexist.
3. Women are too easily offended.
4. Feminists are not seeking for women to have more power than men.



5. Most women fail to appreciate fully all that men do for them.
6. Women seek to gain power by getting control over men.
7. Women exaggerate problems they have at work.
8. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.
9. When women lose to men in a fair competition, they typically complain about being discriminated against.
10. There are actually very few women who get a kick out of teasing.
11. Feminists are making entirely reasonable demands of men.

### **Illinois Rape Myth Acceptance Scale – Short Form**

Below is a series of statements about sexual situations. Please indicate the degree to which you agree or disagree with each statement using the following scale: (1) disagree strongly; (2) disagree somewhat; (3) disagree slightly; (4) agree slightly; (5) agree somewhat; (6) agree strongly.

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

## Hypermasculinity Scale

The following statements describe certain beliefs. Please read each item carefully and decide how well it describes you. Rate each item on the following 5-point scale: (1) not at all like me, (2) not much like me, (3) a little like me, (4) very much like me, (5) very much like me.

1. If another man made a pass at my girlfriend/wife, I would tell him off.
2. I believe sometimes you've got to fight or people will walk all over you.
3. I think women should date one man.
4. I think men who show their emotions frequently are sissies.
5. I think men who show they are afraid are weak.
6. I think men who cry are weak.
7. I don't get mad, I get even.
8. Even if I was afraid, I would never admit it.
9. I consider men superior to women in intellect.
10. I think women who say they are feminists are just trying to be like men.
11. I think women who are too independent need to be knocked down a peg or two.
12. I don't feel guilty for long when I cheat on my girlfriend/wife.
13. I know feminists want to be like men because men are better than women.
14. Women, generally, are not as smart as men.
15. My attitude toward casual sex is "the more the better."
16. I would never forgive my wife if she was unfaithful.
17. There are two kinds of women: the kind I date and the kind I would marry.
18. I like to tell stories of my sexual experiences to my male friends.
19. I think it's okay for men to be a little rough during sex.
20. If a woman struggles while we are having sex, it makes me feel strong.
21. I am my own master; no one tells me what to do.
22. I try to avoid physical conflict.
23. If someone challenges me, I let him see my anger.
24. I wouldn't have sex with a woman who had been drinking.
25. Sometimes I have to threaten people to make them do what they should.
26. Many men are not as tough as me.
27. I value power over other people.
28. If a woman puts up a fight while we are having sex, it makes the sex more exciting.
29. I don't mind using verbal or physical threats to get what I want.
30. I think it is worse for a woman to be unfaithful than for a man to be unfaithful.
31. I think it's okay for teenage boys to have sex.
32. I like to be in control of social situations.
33. I prefer to watch contact sports like football or boxing.
34. If I had a son I'd be sure to show him what a real man should do.
35. If a woman thinks she's better than me, I'll show her.
36. I notice women most for their physical characteristics like their breasts or body shape.
37. I think it's ok ay for men to date more than one woman.
38. I sometimes feel afraid.
39. I think men who stay home to take care of their children are just as weak as women.

40. I'd rather stay home and watch a movie than go out to a bar.
41. I like to brag about my sexual conquests to my friends.
42. When something bad happens to me I feel sad.
43. I can date many women at the same time without commitment.
44. I think men should be generally aggressive in their behavior.
45. I would initiate a fight if someone threatened me.
46. Women need men to help them make up their minds.
47. If some guy tries to make me look like a fool, I'll get him back.
48. I consider myself quite superior to most other men.
49. I like to be the boss.
50. I like to think about the men I've beaten in physical fights.
51. I would fight to defend myself if the other person threw the first punch.
52. If another man made a pass at my girlfriend/wife, I would want to beat him up.
53. Sometimes I have to threaten people to make them do what I want.
54. I think it's okay to have sex with a woman who is drunk.
55. If I exercise, I play a real sport like football or weight lifting.
56. I feel it is unfair for a woman to start something sexual but refuse to go through with it.
57. I often get mad.

Table 1.  
*Sample Demographic Characteristics*

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<b>Age</b>	20.4 ( <i>SD</i> =2.26)
<b>Ethnicity</b>	
European Origin/White	92%
African American/Black	4.1%
Latino/Latina	2.1%
Asian American/Asian Origin	1.4%
<b>Class</b>	
Freshman	26%
Sophomore	24%
Junior	26%
Senior (or higher)	23%
<b>Fraternity Status</b>	
Non-member	57%
Current Member	38%
Past Member	3.4%
<b>Religious Beliefs</b>	
Christian - Protestant	58%
Christian – Catholic	26%
Atheism/Agnosticism	11%
Eastern Orthodox	1.4%
Judaism	.7%
Other	3.4%
<b>Relationship Status</b>	
Single	54%
Dating Seriously	37%
Dating Casually	8%
Married	.7%

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Table 2.

*Final Model Estimates with Sexual Wantedness, Consent to Continue, Consent to Sex as Criterion*

	Sexual Wantedness	Consent to Continue	Consent to Sex
<b>Estimates of Fixed Effects</b>			
Intercept	1.47***	1.27***	1.28***
Social Desirability (CM)	-.05	.01	.02
Female Attire	.15	.07	.04
Female Sexual History	.06	.08	.04
Relationship Sexual History	.21*	.24*	.13
Alcohol Consumption	.00	.03	-.03
Intimacy Attained	.31***	.37***	.57***
Communication Category (CC)	1.7***	1.6***	1.17***
Verbal	.29~	.39*	.26
CC*Verbal	.12	.29*	.52***
Rape Myth Acceptance (RMA)	.50***	.53***	.42***
Interpersonal Reactivity (IRI)	-.01	-.08	-.16*
Hypermasculinity (HM)	.22*	.17~	.17~
RMA*CC	-.17*	-.14*	-.10~

Note. ~  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

All continuous predictors were entered into the model in their centered form. Thus, these estimates can be interpreted as the increase or decrease in outcome given a one standard deviation increase in the predictor variable.

Table 3.

*Estimates of Covariance Parameters for Preliminary and Final Model*

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<b>SW + CTC + CTS</b>	<b>Preliminary</b>	<b>Final</b>	<b>Pseudo R<sup>2</sup></b>
UN (1,1)	4.59***	2.02***	.56
UN (2,1)	4.37***	1.80***	.59
UN (2,2)	4.85***	2.26***	.53
UN (3,1)	3.55***	1.31***	.63
UN (3,2)	4.39***	1.71***	.61
UN (3,3)	12.25***	2.33***	.81
<b>Akaike's Information Criterion (AIC)</b>	8165.84	7902.21	
<b>Schwarz's Bayesian Criterion (BIC)</b>	8206.51	7943.06	

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Note. ~  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Figure 1. *Perception of Verbal and Non-verbal Consent to Continue*

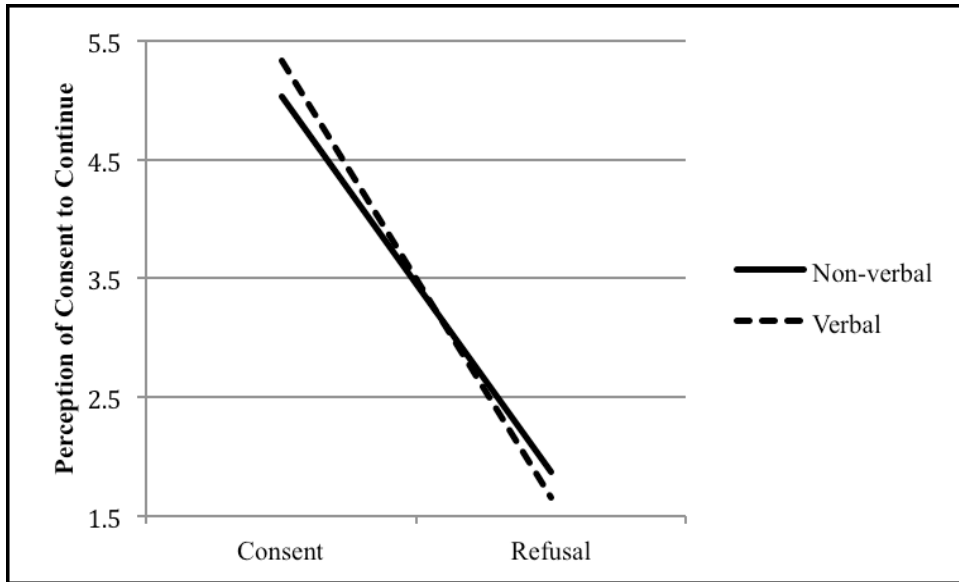


Figure 2. *Perception of Verbal and Non-verbal Consent to Sex*

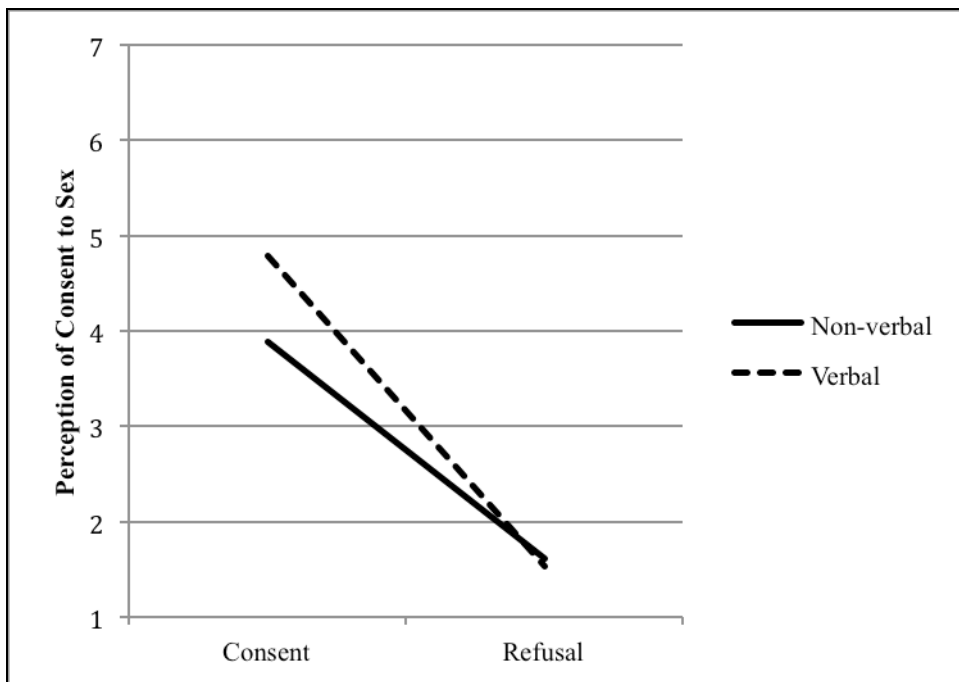


Figure 3. *The Influence of Rape Myth Acceptance on Perceptions of Sexual Wantedness*

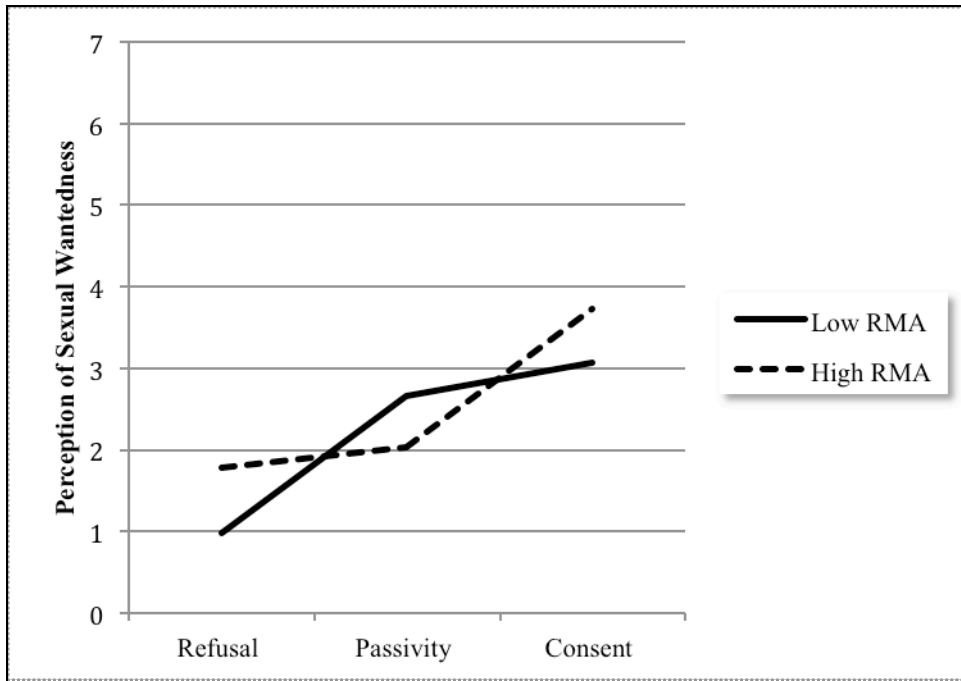


Figure 4. *The Influence of Rape Myth Acceptance on Perception of Consent to Continue*

