



Men's Perception of Women's Passive Sexual Responses Impacts Their Decision-Making During Simulated Hookups

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Abstract

A woman's passive response to a sexual advance can be misconstrued by men as signaling consent when it does not. Characterological factors and situational variances may further shape how men perceive a woman's passive response and impact their sexual decisions during hookups, leading to unwanted sexual experiences for the partner. A sample of men ($n = 357$) completed first-person factorial vignettes depicting a sexual hookup in which a woman reacts to their partner's sexual advance passively, either with or without signs of tension. Men were asked to rate their perceptions of consent and their hypothetical likelihood of engaging in different sexual behaviors, and completed assessments that were used to extract hostile masculinity and impersonal sexual orientation factors. Consent perceptions had strong effects on men's sexual decision-making and mediated situational influences (e.g., passive response type), impersonal sexual orientation, and, to some extent, hostile masculinity; and hostile masculinity had strong direct effects on sexual decision-making irrespective of consent perceptions. Men can discriminate between passive responses and appear to calibrate their decision-making according to their perceptions of consent. Some men, however, are prone to perceive consent in passive responding irrespective of the situation, with others inclined to continue or advance intimacy without considering the woman's level of consent.

Keywords Sexual assault · Passive responding · Sexual consent · Confluence model · Factorial vignettes · Sexual decision-making

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Unwanted or assaultive sexual behavior is a common experience for women during emerging adulthood (Muehlenhard et al., 2017), with the perpetrators disproportionately consisting of their male peers (Kearl, 2018). Correspondingly, many prevention efforts have focused on educating men about when it is appropriate to infer consent (e.g., the tea video, Blue Seat Studios, 2015; Malamuth et al., 2018). These efforts thereby assume that men's misperception of consent is the operative factor underlying their sexual transgressions (Jozkowski, 2015). Supporting this notion are findings strongly suggesting that men do misperceive women's sexual interest (Farris et al., 2008), usually in self-serving ways (Beres, 2010), and tend to conflate their perceptions of a woman's sexual desire with consent to sexual activity (Lofgreen et al., 2021). To the extent that such perceptions translate into men's actions, targeting their tendency to infer consent across sexual scenarios is reasonable.

There is evidence, however, that casts doubt on the notion that misperceptions of consent can broadly account for the gender asymmetry in sexual misconduct (Jozkowski, 2015). For instance, men appear readily able to identify even subtle

signs of sexual refusal (Beres, 2010), and men and women appear to have similar understandings of what behaviors convey consent (Mattson et al., 2022). As Muehlenhard et al. (2016) note, it is understandable for a sexually motivated man to engage in some level of sexual initiation, such as asking a woman out, but it is unclear how his misperceptions of her interest may contribute to advances that constitute harassment or assault. This is particularly relevant considering the multiple indirect and direct strategies women tend to use to signal their disinterest. They conclude that it is conceivable that such unwanted experiences could stem from a genuine misperception of consent, but these cases may be relegated to a narrower set of circumstances.

In the present manuscript, we explored whether one such circumstance is when a woman responds passively to a man's sexual advances during a non-committed sexual interaction (i.e., a hookup). Though problematic sexual experiences occur at relatively high rates within hookups for many reasons (e.g., concomitant alcohol use or prior sexual intimacy; Flack Jr. et al., 2016), it is possible that misperceptions of consent may play a contributing role. Couples in less committed sexual relationships have poorer sexual communication in general (Lehmiller et al., 2014), and hookups are particularly more likely to involve ambiguity in consent communication (Walsh et al., 2021). Therein, passive responding may be especially important to examine, as it is normatively viewed as implying consent, but can also be a corollary of distressing and/or unwanted sexual advances (e.g., the “freeze” response). It remains unclear how perceptions of consent – as well as how contextual aspects of the situation or characteristics of the man involved – influence men's sexual decision-making in response to female passivity during hookup encounters. Such knowledge would likely prove fruitful for selecting and refining prevention efforts targeting perceptions of sexual consent.

Passive Responding, Consent to Sex, and Sexual Assault

Passive responding is defined here as the absence of an explicit verbal or overt behavioral response by one sexual partner to indicate consent or permission for the other partner to increase the level of physical intimacy (e.g., from oral to vaginal sex). A passive sexual response differs from assertive or polite reactions, such as resistance to or approval of sexual advances (Davis et al., 2004). Specifically, passive responding can be understood as an ambiguous reaction where an individual does not clearly express either a “yes” or “no” in response to a sexual advance. In such situations, the person's intentions regarding consent may be unclear, as they do not provide distinct verbal or behavioral cues. An individual's passive sexual response may run a gamut

from implied acceptance of sexual activity to behavioral and physiological freezing that limits their ability to make overt refusals. Consequently, passive responding can serve as a means of communicating consent in some instances, whereas in others, it may not.

Passive responding to a sexual advance aligns with prevailing sexual scripts that cast women as the decision-makers in sexual interactions. According to these deeply ingrained gendered norms, women are viewed as the gatekeeper in a sexual interaction and must set limits to men's sexual entreaties. In this framework, a woman may performatively refuse a man's initial overtures for increased sexual intimacy, which leads the man to respond with behavioral persistence and dominance, at which point the woman passively acquiesces to sexual activity (Wiederman, 2005). These cultural expectations, held by both men and women (Masters et al., 2013), can create the misconception that passive responding is a normative method of signaling consent within traditional sexual scripts. This misunderstanding arises partly because women may not want to appear overly eager to engage in sexual activities, contributing to the ambiguity surrounding passive responses. This may explain why passive responding is a modal signal for conveying and inferring sexual consent in emerging adult populations (Jozkowski & Peterson, 2013).

While normative, passivity as an indicator of consent is not by itself dispositive. For instance, it has been found that women can respond passively even during sexual assaults and such responses may occur more often among those who have previously been victimized or have recently consumed alcohol (Yeater et al., 2011). Passive responding in sexual situations is also associated with increased social anxiety and is observed at higher rates among survivors of prior sexual abuse (Schry & White, 2016; Tirabassi et al., 2017). Passivity may also reflect a state of shock or tonic immobility, which is a defensive pose that occurs in response to situations involving fear and perceived (or actual) behavioral constraint (Marx et al., 2008; also see Gidycz et al., 2008). In the context of sexual assault, this means that women may exhibit passive responses due to fear, past trauma, or other factors unrelated to providing genuine consent. In such cases, men's misinterpretation of passivity as permission to advance can contribute to sexual transgressions.

Though plausible, passive responses in the service of conveying consent may differ topographically from those reflective of distress or intoxication; and there is some evidence suggesting that college-aged men can discriminate between these situations. For instance, using a vignette methodology, Lofgreen et al. (2021) found that men perceived scenarios in which the woman “tenses up and doesn't say anything” as less indicative of consent than those wherein she “stops responding” but offers no resistance (see p. NP1077). The effect was small, however, and average consent ratings suggested that men perceived both forms of passive responding

as an intermediary point between refusal and nonverbal affirmation. Taken together, although men were able to identify some functional difference between passive responses, they viewed neither as a signal to stop. This evidence indicates that situations in which men perceive a passive response may pose a risk for unwanted or assaultive sexual experiences rooted in a misperception of sexual intent.

Factors Influencing Perceptions of Passive Sexual Responses

The interpretation of passive responses is likely complicated by various situational or contextual factors that occur in the events leading up to and during a sexual encounter. That is, passive responding to a sexual advance may be interpreted in conjunction with other contextual factors (e.g., prior sexual history) or signals of sexual availability (e.g., revealing attire), which individuals informally tabulate to determine the permissibility of sexual outcomes (Hickman & Muehlenhard, 1999). Situational or contextual factors can carry meaningful information and, in some sexual situations, may indeed be indicative of an individual's level of sexual consent (Newstrom et al., 2021). Unfortunately, many situational cues that are shown to influence perceptions of sexual intent are often non-diagnostic or may represent misconceptions about what behaviors signal consent. As an example, studies have consistently found a relation between women's alcohol intake and men's perception of sexual consent, with women who drink being viewed as having greater sexual desire or being more responsive to sexual advances (Abbey & Harnish, 1995; Abbey et al., 2001; Davis et al., 2004). Such factors may therefore tip the perceptual balance towards interpreting a potentially ambiguous passive response as affirming consent.

There is also evidence that the interpretation of a woman's passive response during a sexual encounter may be influenced by characteristics of the man within the situation. Specifically, Lofgreen et al. (2021) found that men who reported higher rape myth acceptance and hypermasculinity perceived a greater degree of female consent in the face of passive responding, though men across these spectra perceived consent more comparably when consent or refusal was explicitly communicated. That these dispositional characteristics could have a "top-down" influence on how men perceived passive responding also makes theoretical sense. Specifically, the social information processing model suggests that individuals interpret social cues based on their interpersonal objectives, with continual reference to a central "database" of knowledge (McFall, 1982). Accordingly, those who strongly believe rape necessarily entails physical resistance seem likelier to view passive responding as indicative of consent, whereas those adherent to traditional masculine roles may be interpreting

the woman's passivity through a dominance lens and/or as part of the typical sexual script.

However, men endorsing traditional beliefs about sex and gender may engage in assaultive behavior irrespective of perceived consent, using situational factors like passive responding to provide a post-hoc justification for sexual advancement, or to behave in some other opportunistic manner using the ambiguity of the encounter to their advantage. Indeed, hypermasculine identification and sexist gender norms are components of the superordinate construct of hostile masculinity (see confluence model; Malamuth et al., 1996), which encompasses a broader range of intercorrelated personality traits (e.g., psychopathy) and dispositions (e.g., hostility towards women) that are associated with sexual violence and rights violations in general (Malamuth et al., 1995). For men high in these traits, perceptions of consent might not factor into their sexual calculus to any meaningful degree, though whether and to what extent they do or can explain their sexually assaultive behavior is not well understood. Additionally, aspects of an impersonal sexual orientation (e.g., having many sexual partners, detached sexual behavior) have been linked to an increased risk of engaging in sexual violence (Abbey et al., 2006), and are positively correlated with the magnitude of men's misperception of women's sexual intent (Jacques-Tiura et al., 2007; Perilloux et al., 2012; Wegner & Abbey, 2016). Consistent with social information processing theory, men with impersonal sexual orientations may be more inclined to misinterpret female interest and/or engage in sexual misconduct in line with their broader motivation for numerous sexual partnerships.

Current Study

The aim of this work was to evaluate the association between men's perceptions of consent and the decision to continue or advance the level of intimacy in hookup scenarios wherein the woman responds passively to a sexual advance. We used the factorial vignette approach employed by Lofgreen et al. (2021), which administers multiple first-person vignettes that participants rate in terms of perceived consent and, presently, we asked men whether or not they would stop or decide to continue or advance the level of intimacy in these situations using a variety of different tactics (e.g., "Continue engaging in the initial [sexual] activity, and try to verbally convince your date to advance the activity to a more intimate level"). The vignettes varied on multiple dimensions, which better approximates the real-world heterogeneity of sexual scenarios, while allowing for the experimental manipulation of variables that might be otherwise naturally confounded. We also measured dispositional variables, which were used to explain why some individuals perceive or act in certain ways stably across different situations.

We modified the set of situational variables proposed by Lofgreen et al. (2021), which were selected based on their theoretical and demonstrated relevance to consent perceptions. Hypotheses regarding these factors were framed within the social information processing model (McFall, 1982), which posits a four-step process underlying social responding. These stages entail (1) identifying relevant situational cues (e.g., level of intimacy already attained), (2) the interpretation of that cue in terms of some relevant social dimension (i.e., perceived consent), (3) the consideration and (4) ultimate selection of a behavioral response (e.g., stop versus continue or advance) based on that interpretation. In general, we predicted that the presence of situational cues related to perceived sexual availability (i.e., sexual reputation, alcohol use, and level of revealing attire) would heighten consent perceptions (steps 1 and 2), and in turn the decision to continue some form of sexual activity (steps 3 and 4). Based on the findings of Lofgreen et al. (2021), we hypothesized that the situational factors regarding sexual precedence (i.e., prior sexual contact and current intimacy attained) would have the strongest effect on consent perceptions and, indirectly, sexual decision-making. In addition, we predicted that the different types of passive responding would be differentially associated with consent perceptions and sexual decision-making, with “tenses up” being viewed as indicating less consent and corresponding to a lower likelihood of sexual advancement.

We also fashioned our dispositional variables after Lofgreen et al.’s inclusive set (2021), but incorporated them into the current design using a confluence model approach (Malamuth et al., 1996, 2021). Specifically, we constructed a composite hostile masculinity measure from the individual trait (e.g., psychopathy) and attitude (e.g., rape myth acceptance) variables, as well as aggregated indices relevant to impersonal sexual orientation (e.g., sexual history). Consistent with the social information processing framework, we predicted that dispositional factors would modify the interpretation of a passive response with respect to consent, impacting sexual decision-making in turn.

Given the several mechanisms linking higher hostile masculinity with perceptions of sexual interest (e.g., perceived mate value; Haselton, 2003; Kohl & Robertson, 2014), we predicted that hostile masculinity would indirectly increase the self-reported likelihood of continuing or advancing the level of intimacy by way of higher consent perceptions. However, we predicted that the overall effect of hostile masculinity on sexual responses to female passivity will be partially orthogonal to consent perceptions. Elevations on this trait strongly associate with sexual assault by force or incapacitation (Malamuth et al., 2021), suggesting that perceptions of consent may not be the strongest determinant of whether to proceed in a sexual encounter for these individuals.

For impersonal sexual orientation, scores on measures of this construct specifically correspond with more inclusive understandings of what nonverbal behaviors communicate affirmative consent (Mattson et al., 2022). Correspondingly, we hypothesized that an impersonal sexual orientation would have a unique effect on men’s sexual decisions that is, at least partially, mediated by their stronger perceptions of consent. We also presumed direct influences given evidence that links it to assault through mechanisms separate from consent perceptions (e.g., Testa & Hone, 2019). As a final exploratory analysis, we evaluated potential cross-level interactions wherein dispositional factors influence the cognitive processing of situational elements on perceptions of consent and sexual decision-making.

In summary, the current study posits that: (1) specific situational cues related to perceived sexual availability will increase consent perceptions and influence decisions to continue or advance sexual activity; (2) dispositional factors, such as hostile masculinity and impersonal sexual orientation, will impact consent perceptions and, consequently, sexual decision-making and; (3) different passive response types will be linked to varying levels of consent perceptions and the likelihood of sexual advancement.

Method

Participants

This study screened for self-identified heterosexual male participants living in the United States between the ages of 18–25 for completion of an online survey. By recruiting participants in this age range, we aimed to closely examine sexual consent within the framework of emerging adulthood—a developmental stage distinguished by exploration and the formation of identity (Arnett, 2000). This age group is particularly relevant for examining consent due to their heightened engagement in sexual activity and evolving understanding of sexual ethics (Lefkowitz & Gillen, 2006). Furthermore, Smetana et al. (2006) highlight that cognitive and emotional developments during this period significantly influence decision-making processes, including those related to sexual consent. In effect, our study intends to shed light on the nuanced aspects of consent among emerging adults, contributing to the broader discourse on consent education and sexual behavior.

The final sample consisted of $n = 357$ participants, with the largest group of participants recruited through Qualtrics ($n = 270$), and relatively smaller proportions of individuals recruited via SONA Systems and Mechanical Turk ($n = 73$ and $n = 14$, respectively). This sample of emerging adult men (mean age = 20.7, $SD = 2.0$) reported various aspects of their sociodemographic background. The sample was

predominantly composed of students attending higher education ($n = 238$, 66.7%). Participants primarily identified as European Origin/White ($n = 173$, 48.5%), secondarily as African American/Black/African origin ($n = 77$, 21.6%), and subsequently as mixed ethnicity/race ($n = 35$, 9.8%), Asian American/Asian Origin/Pacific Islander ($n = 25$, 7.8%), Hispanic ($n = 25$, 7.0%), Latino/a ($n = 13$, 3.6%), Middle Eastern ($n = 3$, 0.8%), Native American/Indigenous American ($n = 2$, 0.6%), with a single participant preferring not to answer ($n = 1$, 0.3%). The majority of participants had previously engaged in sexual intercourse ($n = 255$, 71.4%), with the average age of first sexual experience at 16.7 years ($SD = 4.7$). The sample had an average of 4.8 ($SD = 8.6$) sexual partners over their lifetime and 2.6 ($SD = 5.2$) partners since completing secondary school. They also largely described their relationship status as single ($n = 239$, 66.9%), with relatively smaller proportions of individuals in casual relationships ($n = 35$, 9.8%), serious relationships ($n = 57$, 16.0%), and marriages ($n = 23$, 6.4%) with three participants choosing not to report their current relationship status (0.8%).

Materials and Measures

Dispositional Predictors

Hostile masculinity and impersonal sexual orientation are superordinate factors that capture a range of dispositional traits, attitudes, and behaviors associated with sexual aggression. A broad assessment strategy was used to define each dimension, with participants completing multiple scales that were then subjected to data reduction techniques to produce the hypothesized confluence model factors. To capture the hostile masculinity factor, we included measures of psychopathy, hostile and benevolent sexism, rape myth acceptance, hypermasculinity, right-wing authoritarianism, and social dominance orientation. To capture the impersonal sexual orientation factor, we included a measure of sociosexual orientation, as well as elements of participants' sexual history

including participants' age at first intercourse, number of lifetime sexual partners, and the number of partners that they have had since starting college. Importantly, this assessment approach differs from original operationalizations of the confluence model (see Malamuth et al., 1995), but uses similar measures to capture the key components of the underlying constructs (e.g., hostile masculinity and impersonal sexual orientation). A caveat is that the tendency to experience sexual arousal during the domination of women or others was not measured and incorporated, as has been done previously in confluence model operationalizations. An additional caveat is that measures of political ideology (i.e., right wing authoritarianism and social dominance orientation) were included. These were conceptualized as hegemonic attitudes that would correlate with the hegemonic masculinity of hostile masculinity. Despite our rationale as well as prior work that has demonstrated conceptual overlap between hostile masculinity and adjacent masculine constructs (Malamuth et al., 2021), the current measurement strategy departs from previous approaches to extract confluence model factors and may therefore limit the comparability of any extracted factor scores. Measure means, standard deviations, and intercorrelations for all study variables can be found in Table 1.

Hostile Masculinity Factor

Psychopathy The Levenson Self-Report Psychopathy Scale (LSRP, Levenson et al., 1995) assesses antisocial dispositions with 26 items rated on a four-point Likert-type scale ($1 = Strongly disagree$; $4 = Strongly agree$). It measures psychopathy on two scales: primary psychopathy (e.g., *Success is based on survival of the fittest; I am not concerned about the losers*) and secondary psychopathy (e.g., *I find myself in the same kinds of trouble, time after time*). Higher scores indicate higher levels of psychopathic personality features. We used an omnibus index, averaging across the two

Table 1 Intercorrelations, Means, and Standard Deviations for Dispositional Variables

	1.	2.	3.	4.	5.	6.	7.	8.	Mean	SD
1. Adolescent Masculinity Ideology in Relationships Scale	-								2.87	.86
2. Revised Sociosexual Orientation Inventory	.26**	-							3.96	1.47
3. Male Role Attitudes Scale	.69**	.21**	-						2.57	.61
4. Levenson Self-Report Psychopathy Scale	.68**	.31**	.64**	-					2.32	.46
5. Illinois Rape Myth Acceptance Scale—Short Form	.62**	.21**	.64**	.64**	-				2.68	1.26
6. Right-Wing Authoritarianism Scale	.56**	-.05	.58**	.45**	.55**	-			4.43	1.20
7. Ambivalent Sexism Inventory	.54**	.19**	.63**	.49**	.57**	.66**	-		3.55	.71
8. Revised Social Dominance Orientation Scale	.65**	.13*	.55**	.61**	.57**	.65**	.57**	-	3.43	.99

*indicates p value below .05; **indicates p value below .01

subscales. The measure demonstrated good internal consistency with the current sample ($\alpha=0.86$).

Sexism The Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996) measures an individual's endorsement of hostile and benevolent sexism (e.g., *Women exaggerate problems they have at work* and *A good woman should be set on a pedestal by her man*, respectively). The scale is composed of 22 items rated on a six-point Likert-type scale (1 = *Strongly Disagree*; 6 = *Strongly Agree*; $\alpha=0.82$), which were averaged to create a mean score for each participant (higher scores indicating greater sexist attitudes).

Rape Myth Acceptance The Illinois Rape Myth Acceptance Scale–Short Form (IRMA-SF; Payne et al., 1999) is an abbreviated version of the Illinois Rape Myth Acceptance Scale. It contains 20 items (e.g., *If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control*) rated on a six-point Likert-type scale (1 = *Strongly Disagree*; 6 = *Strongly Agree*), with higher scores indicating greater agreement with rape myth attitudes. Participant scores on individual items were averaged to create mean scores. The measure demonstrated good internal reliability in this sample ($\alpha=0.93$).

Hypermasculinity The Male Role Attitudes Scale (MRAS; Pleck et al., 1993) and the Adolescent Masculinity Ideology in Relationships Scale (AMIRS; Chu et al., 2005) were used to assess respondents' exaggeration of male stereotypical behavior. The MRAS contains eight items (e.g., *It is essential for a guy to get respect from others*; $\alpha=0.80$) using a four-point Likert-type scale (1 = *Strongly Disagree*; 4 = *Strongly Agree*). The AMIRS was used as a secondary measure of masculinity that focuses on the need to project masculinity within relationship (e.g., *It's important for a guy to act like nothing is wrong, even when something is bothering him*), which consists of 12 items rated on a six-point Likert-type scale (1 = *Strongly Disagree*; 6 = *Strongly Agree*; $\alpha=0.82$). A summary mean score was calculated for each participant for both measures, with higher levels of each indicating greater hypermasculinity.

Social Dominance Orientation The revised Social Dominance Orientation scale (SDO7; Ho et al., 2015) was utilized to predict social and political attitudes, particularly the preference for hierarchy within social systems. It consists of 16 items (e.g., *Some groups of people must be kept in their place*) rated on a seven-point Likert-type scale (1 = *Strongly Oppose*; 7 = *Strongly Agree*). An average score was calculated for participants with higher scores indicating greater

dominance orientation for the sample. The SDO7 demonstrated good reliability in the current sample ($\alpha=0.88$).

Right-wing Authoritarianism The Right-Wing Authoritarianism Scale (RWA, Altemeyer, 1983) was used to measure attitudes towards conservative authoritarianism. Participants responded to the 22 items (e.g., *The "old-fashioned ways" and the "old-fashioned values" still show the best way to live*) on a nine-point Likert-type scale (-4 = *Strongly Disagree*, +4 = *Strongly Agree*). Items assess the degree to which participants obey authority, endorse traditional societal conventions, and are hostile to those who do not. An average score was calculated for each participant, with higher values indicating greater acceptance of right-wing authoritarianism. The scale demonstrated good reliability in the current sample ($\alpha=0.87$).

Impersonal Sexual Orientation Factor

Sexual History Participants reported their age at first intercourse and number of sexual partners in their lifetime and since the end of secondary school. Individuals' sexual history was assessed here in accordance with the impersonal sexual orientation factor as described by the confluence model.

Sociosexuality The Revised Sociosexual Orientation Inventory (SOI-R; Penke, 2011) assessed participants' tendencies to have casual, uncommitted sexual relationships. The SOI-R is a 9-item questionnaire that looks at three aspects of sociosexuality: behavior (e.g., *With how many different partners have you had sex within the past 12 months?*), attitude (e.g., *Sex without love is OK*), and desire (e.g., *How often do you have fantasies about having sex with someone with whom you do not have a committed romantic relationship?*). We used a combined index, averaging the items across three subscales, to indicate overall orientation towards casual sexual relationships ($\alpha=0.79$).

Calculation of Dispositional Factor Scores

This slate of dispositional assessment scales and historical sexual data were subjected to a principal components analysis (PCA) with a Direct Oblimin rotation and Kaiser normalization procedure. The Kaiser–Meyer–Olkin measure indicated a sufficient level of variance suitable for factor analysis (KMO = 0.83) and Bartlett's test of sphericity indicated the existence of intercorrelations between these variables that were significantly different from the identity matrix ($\chi^2 = 2168.24$, $df = 55$, $p < .001$). Two factors were extracted, with the first and second factor accounting for 42.5% and 21.6% of the response variance, respectively. As expected, the first factor appeared to capture hostile

masculinity traits (e.g., pattern matrix loadings ranged from 0.78 [Ambivalent Sexism Inventory] to 0.84 [Male Role Attitudes Scale]), and the second represented an impersonal sexual orientation factor (e.g., pattern matrix loadings ranged from -0.65 [age at first sexual experience] to 0.90 [number of lifetime sex partners]). A small but significant correlation was found between the two component dimensions ($r = .11, p = .043$). A regression-based approach was used to calculate and save factor scores for each dimension based on the obtained solution. Factor scores were used as dispositional predictors in subsequent analyses (see Table S1 in the online supplement for the full factor loading solutions).

Situational Predictors

Participants were asked to read two vignettes describing a sexual encounter between a man and a woman that depicts a prototypical college hookup scenario wherein the man attempts to escalate the level of intimacy and the woman responds passively to the man's sexual advances. The participants are asked to imagine themselves as the man in the encounter. The female character's name was varied across vignettes based on a selection of the forty most popular female baby names during the mid- to late-1990s using publicly available data from the U.S. Government's Social Security Administration. Though six vignettes were included in the full study, only the two vignettes that depicted passive consent responses were analyzed for the current paper. The two vignettes that depicted overt refusal responses are the subject of a separate theoretical and empirical analysis on the basis of hypothesized differences in men's decision-making in these contexts (McKinnon et al., *in press*), whereas the remaining two vignettes presented scenarios involving consensual sexual encounters.

Vignettes were randomly varied on six situational dimensions: female attire, female sexual history, relationship sexual history, alcohol consumption, intimacy attained, and female passive response type. All variables were dummy coded for subsequent analyses such that situational elements least expected to increase perceptions of consent (e.g., a low level of physical intimacy attained in the encounter) were coded as 0, with values of 1 or greater assigned to contextual aspects that may be ordinally associated with greater perceptions of consent (e.g., a greater degree of pre-coital sexual behavior occurring). These features were selected to vary due to their hypothesized relevance to men's perceptions of consent and behavioral decision-making.

Female Attire The woman in the vignette was described as either appearing “really pretty” and “wearing a nice blouse

and a skirt,” or as “really sexy” and “wearing a short skirt and blouse that reveals her cleavage”. The variable was dummy coded such that the former appearance was coded as 0 and the latter appearance described with sexualized language use was coded as 1, anticipating that the higher value would be more strongly associated with perceptions of sexual consent.

Female Sexual History The woman in the vignette's sexual history was described as “never had sex with anyone else before (coded as 0),” “had sex before with an ex-boyfriend that she dated seriously (coded as 1),” “had sex with several boyfriends that she dated seriously in the past (coded as 2),” or “had casual sex with several guys since she's been in college (coded as 3)”.

Relationship Sexual History As the imagined man in the vignette, the participant was described as either not previously having had sex with the woman, but is “really hoping you'll get the chance to tonight (coded as 0)” or has already had sex with the woman, and is “really hoping you'll get the chance to again tonight (coded as 1)”.

Alcohol Consumption The man and woman were described as either having used alcohol that night or not having used alcohol that night. The alcohol use situational variable was recoded as two separate variables—alcohol use of the man and of the woman in the encounter – in addition to an interaction term for conjoint alcohol use. The dummy coding scheme for both the man and woman alcohol use variables specified 1 for no alcohol use and 2 for alcohol use, with the interaction term being the product of these two dummy coded variables.

Intimacy Attained The level of sexual intimacy occurring in the encounter was described as either a lack of intimacy yet initiated with the man moving to kiss the woman (coded as 0), “making-out” and attempting to initiate sexual touching beneath the woman's shirt (coded as 1), an attempt to remove the woman's underwear (coded as 2), or, lastly, engaging in oral sex without clothes on with the man beginning to initiate penile-vaginal penetration (coded as 3). Higher levels of this variable included elements of lower levels of intimacy as part of the narrative (e.g., the oral sex level specified a series of sexual behavior, such as kissing, prior to attempting to initiate intercourse).

Female Passive Response Type Passive female response types were presented to the man's attempt at advancing the level of intimacy. These included that the woman “stops responding but doesn't resist you in any way” or “tenses up and doesn't say anything,” following Lofgreen et al.'s

methods (2021). The former response type implies ambiguity regarding sexual willingness without indication of any physical resistance or engagement in the sexual activity, and the latter type indicates that the woman has become physically tense and verbally unresponsive during a sexual encounter, consistent with descriptions of tonic immobility (See Appendix for an example of a complete vignette). For the dummy coding arrangement, a value of 0 indicated the ambiguous but relatively neutral passive response and a value of 1 indicated the passive response with potential for psychological distress and freezing.

Outcome Variables

After reading the vignettes, participants rated the likelihood of responding to each situation with nine possible behaviors rated on a seven-point Likert-type scale ($0 = \text{Very Unlikely}$, $6 = \text{Very Likely}$). Per the item response scale, values greater than 3 indicate a greater likelihood of engaging in these behaviors and values less than 3 indicate a lesser likelihood. Two behavioral variables were created from these responses and mean scores were calculated.

Continue Behavior The *continue behavior* variable ($\alpha = 0.75$) is comprised of six of the behavioral items that ranged from stopping the sexual behavior and trying again later to attempting to continue a pre-specified level of sexual intimacy following a passive response with later attempts to persuade or coerce greater levels of intimacy, and included: (1) stop engaging in the sexual activity - it's just not going to happen tonight ($M = 3.5$, $SD = 2.0$); (2) stop engaging in the sexual activity and try to verbally convince your date to continue ($M = 2.6$, $SD = 2.0$); (3) stop engaging in the sexual activity, and attempt to continue the activity again in a few minutes ($M = 2.2$, $SD = 1.9$); (4) continue engaging in the initial activity, but stop trying to advance it to a more intimate level ($M = 2.7$, $SD = 2.0$); (5) continue engaging in the initial activity, and try to verbally convince your date to advance the activity to a more intimate level ($M = 2.5$, $SD = 2.0$); and (6) continue engaging in the initial activity, and try again in a few minutes to advance it to a more intimate level ($M = 2.3$, $SD = 2.0$).

Advance Behavior The *advance behavior* variable ($\alpha = 0.87$) is comprised of three behavioral items that reflect attempts to advance the level of sexual activity at that point in the scenario, and included: (7) continue advancing the level of intimacy - tonight's your lucky night ($M = 2.0$, $SD = 2.0$); (8) continue advancing the level of intimacy by ignoring your date ($M = 1.5$, $SD = 2.0$); and (9) continue advancing the level of intimacy by using some degree of physical force ($M = 1.3$, $SD = 1.9$).

Perceptions of Consent Participants also completed three items that assessed the degree to which they perceived the woman was consenting to sexual activity with them in the vignette, using a seven-point Likert-type scale ranging from 0 (*Not at all*) to 6 (*Very much*): “How much do you think your date wants to continue the sexual interaction?” ($M = 2.7$, $SD = 1.7$), “How much do you think your date has communicated willingness to continue the sexual interaction?” ($M = 2.3$, $SD = 1.8$), and “How much do you think your date has communicated willingness to have sex?” ($M = 2.2$, $SD = 1.9$). Responses to the items were averaged to create mean scores, with higher scores indicating more perceived willingness on the part of the woman to engage in sexual activity with them ($\alpha = 0.90$; $M = 2.4$, $SD = 1.7$).

Procedure

Institutional Review Board (IRB) approval was obtained before any data were collected to ensure ethical treatment of the subject pool. A sample of $N = 499$ participants were recruited and completed factorial vignettes and several trait-level questionnaires (an additional $n = 99$ did not complete vignettes and were excluded from analyses). These individuals were recruited through Qualtrics online research panels ($n = 396$), Amazon's MTurk platform ($n = 21$), and Northeastern University's SONA psychology course participation pool ($n = 82$). Participants recruited via Qualtrics received monetary compensation commensurate with their respective recruitment panel agreement, with no participant receiving more than \$6 for their participation. Those recruited through MTurk received \$0.75, and those recruited through the SONA pool received psychology participation credits to satisfy course requirements.

All participants provided anonymous consent to participate, and all measures were completed anonymously online. Data collection proceeded between February and September of 2018 with the approval of our Northeastern University's Institutional Review Board. Measures and tasks appeared in the following order: socio-demographics questionnaire; six vignettes and related outcome questionnaires; and personality and attitudinal measures in a randomized order. Note that two vignettes each pertained to communicated consent or explicit refusal and were not included in the current analyses: Only responses to the two vignettes wherein the woman responded passively were presently examined. Detailed analyses of the two explicit refusal vignettes are reported in McKinnon et al. (in press).

Prior to analyses, all data were inspected for attention and effortful responding. Those with less than half of their survey item responses completed ($n = 33$) were excluded from analyses. Additionally, individuals with evidence of straightlining or inattentive responding (e.g., repetitive, inconsistent,

or patterned survey completion behavior) as determined via visual inspection or multivariate outliers (e.g., Mahalanobis distances) were excluded for analyses ($n = 84$), resulting in a sample of 382. Little's MCAR test was conducted to evaluate the pattern of missingness in survey measures and indicated that missingness was not completely at random ($\chi^2(17,672) = 19,340, p < .001$). For the remaining participants (who were missing less than 50% of their item responses), missing item responses were derived by mean imputation within each survey measure. Finally, a second round of multivariate outliers were identified ($n = 25$ cases) via Cook's distances derived through preliminary estimations of the hypothesized models and removed, leaving a final sample of 357 participants.

Planned Analyses

We evaluated our hypotheses using a series of multilevel mixed regression models. Participants responded to two vignettes, creating a data structure with both within- and between-subjects variance corresponding to level 1 and 2. We estimated separate models to predict perceptions of consent and the likelihood of continuing or advancing the level of intimacy. In each case, the situational characteristics that varied across vignettes were entered as level 1 predictors. The dummy coding arrangement applied to the situational variables created model intercepts that are the expected value of a given outcome (e.g., perceptions of consent) for a vignette representing the most sexually neutral situation vis-a-vis the contextual cues.

Each model also contained a random intercept representing between-subjects differences in participant responses across the vignettes (i.e., the extent to which some men, on average, scored higher versus lower across the two vignettes). Factor scores for the dispositional predictors (i.e., hostile masculinity and impersonal sexual orientation) were entered at this level. Each outcome (perceptions of consent, and the likelihood of continuing or advancing) was regressed onto the dispositional and situational predictors simultaneously, with the model intercept reflecting the expected value of the consent, continue, or advance variables for a man at the midpoint of the hostile masculinity and impersonal sexual orientation factors when all of the situational influences are set to their lowest level and the passive response contains no evident distress. We used restricted maximum likelihood (REML) estimation in each model. For each outcome, negative log likelihood (-2LL) estimates were calculated for a baseline and predictor model to determine whether model fit significantly improved as a function of entering the situational and dispositional variables. We estimated the perceptions of consent models first, followed by the continue

and advance outcome models. We used multilevel mediation models via the MLMED SPSS macro (Hayes & Rockwood, 2020) to formally assess the relation between variables in each mediational path of interest. Finally, we explored cross-level interactions across three exploratory multilevel mixed regression models.

In efforts to determine whether subgroups recruited from different online platforms could be analyzed as a single sample, the final models were estimated using only the Qualtrics subsample, as this was the only group with sufficient power for a multilevel mixed model. The overall pattern of findings comported with that of the full sample. Additionally, we also tested whether recruitment source would predict outcomes across our final multilevel models, but no significant influence of subgroup was observed.

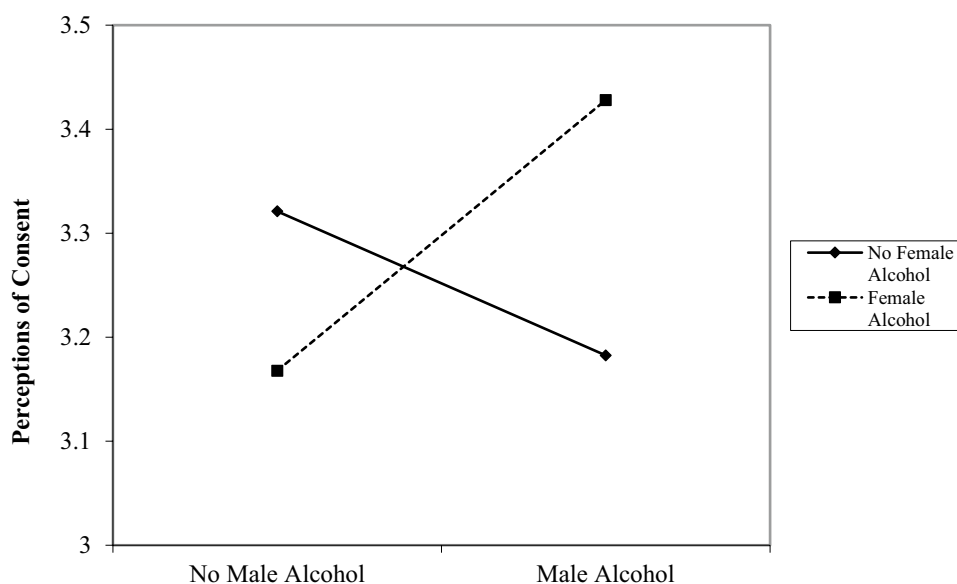
Results

Perceptions of Consent

We hypothesized that both confluence model traits (i.e., hostile masculinity and impersonal sexual orientation) and the situational variables, particularly relationship sexual history, intimacy attained, and passive response type, would be associated with perceptions of consent. A baseline model demonstrated significant variance or error both within- (i.e., Level 1; Wald's $z = 12.18$) and between-subjects (i.e., level 2; Wald's $z = 10.76$) components of the model, $ps < .001$, capturing 27% and 73% of the variance, respectively, suggesting that variation in perceptions of consent was predominantly tied to the dispositional level.

Consistent with our hypotheses, greater levels of intimacy attained in the encounter, $t[482.24] = 4.22, d = 0.27, p < .001$, positively predicted perceptions of consent, whereas the passive response type indicating that the woman tensed up was associated with relatively lower consent perceptions, $t[472.00] = -2.17, d = -0.12, p = .031$. We also found significant effects for conjoint alcohol use, $t[528.64] = 2.25, d = 0.19, p = .025$, with varying findings for men's, $t[529.88] = -1.93, d = -0.17, p = .054$, and women's alcohol use, $t[517.09] = -1.99, d = -0.17, p = .047$. Plots of the conjoint alcohol use interaction indicated that the presence of alcohol use for both the man and woman was linked to perceptions of more female consent to sexual activity (see Fig. 1). Of the dispositional factors, only the hostile masculinity factor significantly predicted perceptions of consent, $t[332.29] = 17.74, r^2 = 0.42, p < .001$. Entering the predictor variables improved model fit, $\chi^2(11) = 214.88, p < .001$. A considerable portion of variance in perceptions of consent was predicted by this model, with the marginal pseudo- R^2 being 0.44.

Fig. 1 Differences in Consent Perceptions as a Function of Alcohol Usage



Continue Behavior

We estimated models focusing on men's decision to continue or advance the sexual encounter and anticipated parallel effects for the dispositional and situational variables. A baseline model revealed significant variance between and within subjects for the continue (Wald's $z = 12.08$ and 10.90) and advance outcomes (Wald's $z = 12.17$ and 12.17), $ps < .001$. Notably, the proportion of error or variance ascribed to the dispositional level grew relatively larger as the behavioral outcome changed from continue (74%) to advance (87%), with the situation-level variance correspondingly shrinking across outcomes (i.e., 26% and 13%, respectively), suggesting that situational factors played less of a role in men's sexual decision-making across these criteria.

We found that alcohol use by the woman in the vignette, $t[474.62] = -2.15$, $d = -0.17$, $p = .032$, was negatively associated with the decision to continue the sexual interaction. In addition, the absence of alcohol use by both parties, $t[487.47] = 2.13$, $d = 0.17$, $p = .034$, and greater levels of intimacy attained in the encounter, $t[438.81] = 2.28$, $d = 0.16$, $p = .023$, predicted greater likelihood of continuing. Significant dispositional predictors included both the hostile masculinity factor, $t[329.05] = 14.12$, $r^2 = 0.32$, $p < .001$, and impersonal sexual orientation factor, $t[349.14] = 2.11$, $r^2 = 0.01$, $p = .035$, with trait elevations in both cases corresponding to higher likelihoods of continuing the sexual interaction. Entering the predictor variables improved model fit, $\chi^2(11) = 130.87$, $p < .001$, with pseudo- R^2 value indicating that approximately 34% of the variance was explained by the fixed effects.

We then added perceptions of consent to the model, which was significantly associated with a greater likelihood of continuing the sexual encounter, $t[623.95] = 11.37$,

$r^2 = 0.20$, $p < .001$. Notably, neither the situational predictors nor impersonal sexual orientation remained significant once accounting for perceptions of consent, suggesting potential mediation. In comparison, hostile masculinity was significantly predictive of the likelihood of continuing the sexual interaction, $t[427.93] = 6.91$, $r^2 = 0.11$, $p < .001$, which was consistent with predictions. Entering the predictors and consent variables improved model fit, $\chi^2(1) = 102.93$, $p < .001$, and accounted for an additional 13% of the variance in the decision to continue the sexual interaction.

Advance Behavior

No situational factors were significantly associated with the decision to advance the level of sexual intimacy; however, hostile masculinity was a significant predictor, $t[337.03] = 20.54$, $r^2 = 0.52$, $p < .001$. While hostile masculinity was the only significant predictor, more than half of the variance in the outcome was accounted for by this set of predictors overall (pseudo- $R^2 = 0.53$), which significantly improved model fit relative to the baseline model, $\chi^2(11) = 248.41$, $p < .001$. Entering perceived consent to the model yielded a better overall fit compared to the preceding model, $\chi^2(1) = 134.14$, $p < .001$, with higher levels of perceived consent associated with a greater likelihood of advancing the sexual encounter, $t[618.41] = 12.89$, $r^2 = 0.24$, $p < .001$. The hostile masculinity factor was still predictive, $t[442.67] = 13.73$, $r^2 = 0.37$, $p < .001$, though its effect size was attenuated by the inclusion of consent perceptions, which additionally increased the overall pseudo- R^2 value by 11%. See Table 2 for results of each multilevel regression model with regression weights.

Table 2 Predictors of Consent and Behavioral Outcomes

Models:	Perceptions of Consent	Continue	Continue (Consent Added)	Advance	Advance (Consent Added)
Predictor	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)	<i>B</i> (<i>SE</i>)
Intercept	4.01 (.68)**	2.98 (.56)**	1.68 (.55)*	2.48 (.54)**	.89 (.52)
Type of Passive Response	-.18 (.08)*	.03 (.07)	.09 (.07)	-.11 (.07)	-.02 (.06)
Attire	-.04 (.08)	-.07 (.07)	-.08 (.07)	.06 (.06)	.05 (.06)
Sexual History of Woman	.06 (.04)	.03 (.03)	.02 (.03)	.02 (.03)	.004 (.03)
Sexual History of Dyad	.06 (.09)	.06 (.07)	.02 (.07)	-.01 (.07)	-.03 (.07)
Man's Alcohol Use	-.54 (.28)	-.44 (.23)	-.32 (.22)	-.21 (.22)	-.05 (.21)
Woman's Alcohol Use	-.55 (.28)*	-.49 (.23)*	-.35 (.22)	-.25 (.20)	-.09 (.21)
Conjoint Alcohol Use	.40 (.18)*	.31 (.15)*	.21 (.14)	.18 (.14)	.06 (.13)
Level of Intimacy Attained	.16 (.04)**	.07 (.03)*	.02 (.03)	.05 (.03)	-.01 (.03)
Hostile Masculinity Factor	1.07 (.06)**	.75 (.05)**	.38 (.06)**	1.25 (.06)**	.83 (.06)**
Impersonal Sexual Orientation Factor	.11 (.06)	.12 (.05)*	.08 (.05)	.07 (.06)	.03 (.05)
Hostile Masculinity x Impersonal Sexual Orientation	.06 (.06)	.06 (.05)	.04 (.04)	.05 (.06)	.03 (.05)
Perceptions of Consent	-	-	.35 (.03)**	-	.40 (.03)**

* $p < .05$; ** $p < .001$

Multilevel Mediation Models

We hypothesized that both the hostile masculinity and impersonal sexual orientation factors would have indirect effects on the continue and advance behavior outcomes, as mediated by perceptions of consent. A separate multi-level mediation model was conducted for each behavioral outcome with the factor scores entered as predictors (X), perceptions of consent entered as a mediator (M), and the relevant behavioral factor entered as an outcome (Y). Significant indirect effects were observed for hostile masculinity through perceptions of consent on both the continue and advance behavior outcomes (see Fig. 2), whereas there were no significant indirect effects observed for impersonal sexual orientation. In sum, participants with higher trait level hostile masculinity are both more likely to continue and advance sexual behavior as a function of perceptions of consent, but also irrespective of them, with the direct effects on behavior being larger than the indirect route.

Exploratory Cross-Level Interactions

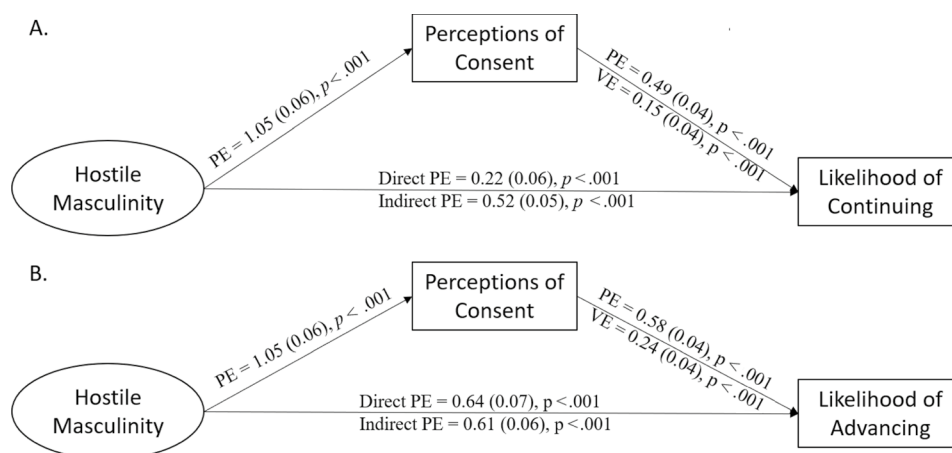
Finally, we estimated a series of exploratory models examining whether the confluence model factors would interact with situational elements to uniquely predict perceptions of consent and the behavioral outcomes. A limited set of significant cross-level interactions were observed across the perceptions of consent and continue models. Summarily, hostile masculinity interacted with intimacy attained in the consent model, $b = -0.12$ (0.04), $t[478.73] = -2.99$, $r^2 = 0.01$, $p = .003$, such that participants lower in hostile masculinity perceived

greater consent at higher levels of intimacy attained (simple slope test for low hostile masculinity: $t = 4.43$, $p < .001$); whereas participants higher in hostile masculinity perceived consent regardless of intimacy level (simple slope test for high hostile masculinity: $t = 0.66$, $p = .510$; also see Fig. 3). Similarly, impersonal sexual orientation interacted with the type of passive response for the continue model ($b = 0.23$, (0.07), $t[480.92] = 3.25$, $r^2 = 0.01$, $p = .001$), and subsequent simple slope tests revealed that individuals at higher levels of impersonal sexual orientation were more likely to continue in the context of a passive response involving tensing up (simple slope test for high impersonal sexual orientation: $t = 3.36$, $p = .001$; simple slope test low impersonal sexual orientation: $t = -1.44$, $p = .151$; also see Fig. 4).

Discussion

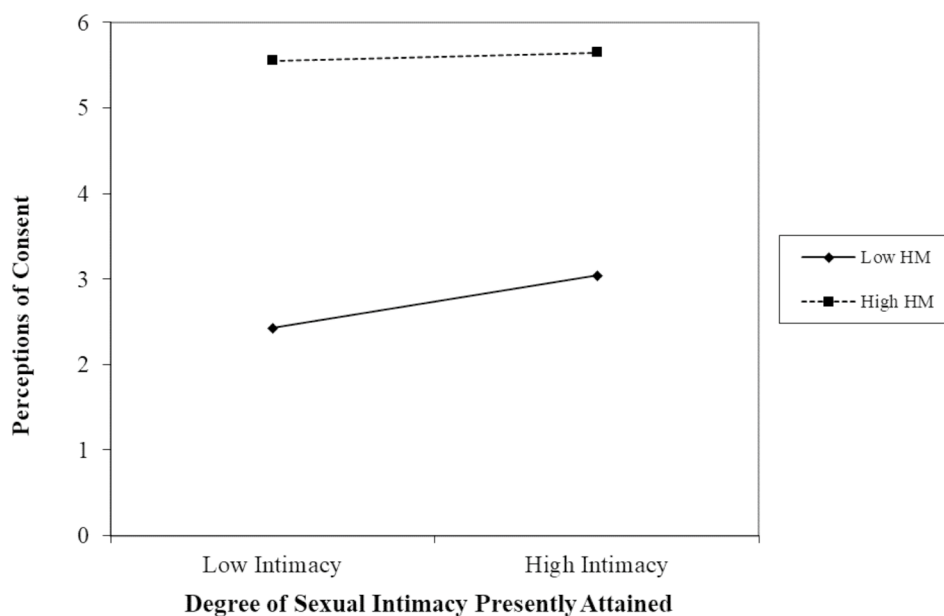
The purpose of the current study was to evaluate the role of consent perceptions in men's decision-making in response to a woman's passive response to his sexual advances during a prototypic hookup scenario. Perceived consent following a passive response was relatively high, which tracks with evidence that passive responding is normatively viewed as a signal of consent (Muehlenhard et al., 2016). Nevertheless, men varied in their perception of consent, with higher perceived consent being linked to an increased likelihood of continuing or advancing the sexual behavior. These findings are important because they suggest a strong link between perceptions of consent and emerging adult men's decision-making in sexual situations, which, to our knowledge, had

Fig. 2 Perceptions of Consent as a Mediator of Hostile Masculinity on Sexual Behavior



Note. This figure demonstrates the significant direct and indirect regression results (including regression coefficients, standard errors, and p values) of the hostile masculinity mediation models. Panel A demonstrates direct and indirect effects on the likelihood of continuing while Panel B depicts the results of regressions upon the likelihood of advancing. Insignificant paths are not presented for visual clarity. Participant (PE) and vignette effects (VE), which refer to between- and within-subjects effects, are also specified where relevant. As an example, there is a greater predictive effect between participants on the likelihood of advancing a sexual encounter (PE = 0.58, SE = 0.04, $p < .001$) as compared with the effect of perceptions of consent within subjects or across each vignette (VE = 0.24, SE = 0.04, $p < .001$).

Fig. 3 Hostile Masculinity Moderates the Effect of Intimacy Attained on Perceptions of Consent



Note. Figure demonstrating the interaction between level of intimacy attained and hostile masculinity (denoted by HM in the legend) and the consequent impact on perceptions of consent.

not been empirically established previously. We also found this effect in situations where the woman responded passively to a sexual advance, highlighting the perception of consent from passive responses as a possible target for prevention efforts. However, this possibility should be considered alongside our broader findings regarding the relative role of various situational and dispositional influences on men's perceptions of consent, as well as their broader impacts on men's sexual decision-making in these situations.

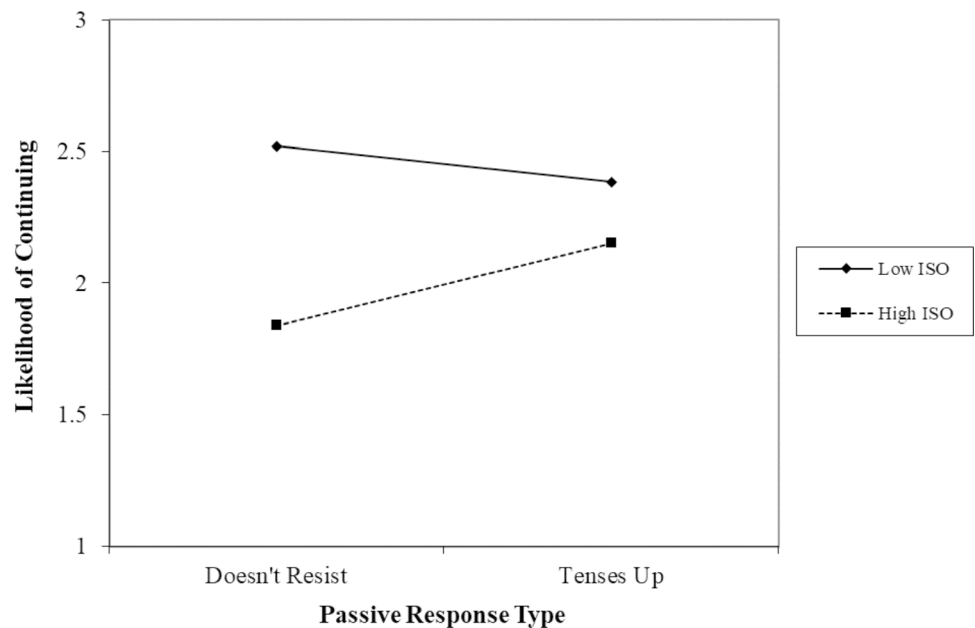
Situational Influences

We found that the situational influences on men's sexual decisions were predominantly explained by perceptions of consent; that is, certain contextual factors impacted the likelihood of behavioral decisions because they calibrated men's views of the woman's sexual intentions. This should be considered alongside findings that emerging adult men do not consider passivity by itself an affirmative indicator (Mattson et al., 2022) or a clear signal to stop (also see Lofgreen et al., 2021). Taken together, these findings suggest that men may be interpreting a passive response as being ambiguous and may be processing the situational factors in earnest; that is, with reference to their perceived bearing on consent. Likewise, certain situational factors appeared to differentially affect men's decision-making by way of consent, and included the type of passive response that was given, the degree of alcohol use by the woman and

pair of individuals, and the level of sexual intimacy that was occurring. Passive responses that indicated that a woman tensed up or used alcohol lead to more conservative estimations of consent whereas greater levels of sexual intimacy and conjoint alcohol consumption was associated with greater estimates of female consent. This latter finding is also notable considering the strong ties between alcohol use and unwanted sexual behavior (Celniker et al., 2022; Davis et al., 2004). More generally, these results provide evidence that men were taking perceived signals of consent into account when making sexual decisions, and that they were sensitive to information that could alter the meaning of a passive sexual response.

Though these findings are encouraging, other effects highlight the potential mechanisms by which a passive response can lead men to pursue unwanted or uninvited sexual behavior. For instance, although men downgraded their perceptions of consent in response to potential distress, we replicated Lofgreen et al.'s (2021) finding that this effect was small. On average, an indication that the woman tensed up only served to reduce men's interpretations of consent to a neutral point between sexual willingness and refusal, as opposed to perceiving it as a signal to curtail the interaction altogether. Passive responses were also unrelated to men's decisions to advance the level of intimacy, overall suggesting that some men may be viewing passive signs of distress as something that could ultimately be negotiated or worked around.

Fig. 4 The Interaction Between Impersonal Sexual Orientation and Passive Response Type



Note. The type of passive responses had a differential influence on the likelihood of continuing the sexual interaction for individuals of high and low impersonal sexual orientation (denoted by ISO in the legend), on the likelihood of endorsing continuing the sexual interaction.

We also found that higher levels of intimacy already attained in the interaction were associated with increases in men's belief that they had secured consent to sex. It is possible that this effect is in line with stereotypical schemas for how sexual intercourse is ultimately attained (Geer & Broussard, 1990); having to proceed through a series of steps before the woman, as sexual gatekeeper, responds passively to the men's advance (see Ward et al., 2022). However, the level of intimacy attained appears to have a consistent effect on men's perceptions of consent across sexual situations (Jozkowski et al., 2014; Lofgreen et al., 2021), and so the operative mechanism is not exclusive to only scenarios involving a passive sexual response. It is plausible that as the level of intimacy increases, emerging adult men may strongly believe that their partner desires sexual intercourse, and therefore processes any incoming information through this lens as corroborating evidence. This is problematic given the evidence that men, on average, pursue sexual activity for pleasure whereas women more typically seek it to achieve greater emotional intimacy (Dawson & Chivers, 2014). As a result of these differing motivations, men may converge on a myopic interpretation of the situation centered upon the achievement of intercourse that may become incorrigible after passing some level of sexual intimacy.

Dispositional Findings

Complicating these situational results is the finding that perceptions of consent varied predominantly between individuals, indicating that these men were consistently inferring similar levels of consent irrespective of what was occurring in the vignettes. Likewise, we found that characterological variables, such as impersonal sexual orientation, interacted with passive responses to influence perceptions of consent, which may partially explain its association with sexual decision-making. Prior work has established that impersonal sexual orientation may impact sexual assault by way of various distal mechanisms, such as increasing the likelihood of being in higher risk sexual situations (Cleveland et al., 2019). However, we found that impersonal sexual orientation is also proximally linked to decision-making within sexual encounters. It is important to highlight that this effect emerged when controlling for hostile masculinity traits, as previous research suggests that the link between impersonal sexual orientation and sexual assault may be explained by aspects of this broad construct (e.g., dark triad traits; Jonason et al., 2017; Malamuth et al., 2021) and rape-supported attitudes (Yost & Zurbriggen, 2006). Our results thus may be outlining an independent mechanism that increases the perpetration of risk for individuals oriented favorably toward more casual sex, especially given that our exploratory analysis revealed that high impersonal sexual orientation men viewed greater consent in situations involving passive distress. These findings are aligned with social

information processing theory, with impersonal sexual orientation serving as a "top-down" influence that can shape the way sociosexual information is interpreted, and with tandem consequences for sexual decision-making.

Hostile masculinity also indirectly influenced sexual decision-making by way of perceived consent, which is consistent with previous work demonstrating that hostile masculine men may misperceive sexual intent (Jacques-Tiura et al., 2007). A core rape myth is the belief that consent is the absence of refusal behavior, as opposed to an affirmative standard, which may be especially relevant in the case of the passive response scenarios examined here (Payne et al., 1999). However, the present direct effect of hostile masculinity was notably stronger, indicating that men elevated on this trait were making sexual decisions largely irrespective of whether they perceived the situation to be consensual. Moreover, the level of intimacy attained in the situation was only relevant to consent perceptions for men low in hostile masculinity, with the overall pattern suggesting that those high on this trait may have already assumed consent to sex. Hostile masculinity was also the strongest and most consistent predictor of sexual decision-making across models and had the largest effect on the decision to advance the level of sexual intimacy when controlling for consent perceptions. To the extent that these effects map onto real-world hookups, they would highlight hostile masculinity as a main ingredient in unwanted sexual experiences following a woman's passive response, and that the operative mechanism *does not* reflect a misunderstanding about consent. Indeed, this may further indicate that consent-focused preventative efforts may have limited impact on individuals whose behavior is a product of the direct effects of hostile masculinity.

Strengths of the Design

This study used factorial vignettes as a means of assessing how men would hypothetically perceive consent and behave in prototypical sexual scenarios. This approach has advantages over comparable methods such as the evaluation of historical sexual encounters, which may be subject to a host of memory biases, or situations involving confederates that preclude the examination of sexual decision-making during hookups. We also experimentally manipulated multiple situational factors. This not only permits stronger causal interpretations and the disentangling of influences that are confounded naturalistically (Atzmüller & Steiner, 2010), but also may better model the heterogeneity of real-world hookups between emerging adults. Thus, the situational effects that emerged appear to exert independent causal influences on men's perceptions of consent and sexual decision-making reliably across situations that varied in other respects. Nevertheless, although the heterogeneity of our vignettes may contribute to ecological validity, this factorial

approach is better suited for testing the main effects of a factor and may have limited power to detect the intersectional effects across factors. Future investigators interested in the processing of overlapping contextual elements may seek to test a smaller number of factors with clear a priori hypotheses for interactions on outcomes.

Another strength of the current design was that we measured men's sexual decision-making using multiple, concrete behavioral anchors. This is beneficial, as describing a potentially stigmatized interaction in a more neutral way leads to substantial increases in reporting rates (Fisher et al., 2000), and identifies risk in men inclined to use certain specific tactics but not others. Regarding this latter point, it is notable that men appeared to be simultaneously considering multiple possible courses of action, ranging from stopping to elevating the level of intimacy, with these different decisional paths resting at different likelihoods. This mirrors evidence that individuals hold different conditional hypotheses regarding a potential sexual counterpart's intentions (Treat et al., 2020), which are continuously updated in light of additional information as the interaction unfolds (Perilloux et al., 2012). Currently, men may have viewed a passive response to their sexual advance as having multiple potential, but mutually exclusive, meanings and calibrated the likelihood of different sexual decisions accordingly. It is also interesting that the rated likelihood of using tactics to continue the interaction appeared to vary more from situation-to-situation than did the decision to advance the level of intimacy, which more strongly reflected person-level variation. These findings thus suggest that different sexual decisions may themselves be influenced by fundamentally separate underlying causal processes, and that measures such as those currently used may be beneficial in teasing apart these finer-grained effects.

Finally, some of the vignette situations that participants were presented with could have been reflective/emblematic of genuine consensual sexual experiences with passive responses. Under such circumstances, advancing a sexual encounter may not necessarily constitute sexual aggression. However, this should be considered alongside our findings indicating that perceptions of consent were primarily reflective of person-level characteristics, and that hostile masculinity characteristics had strong independent impacts on sexual decisions. Correspondingly, these effects suggest that—on a long enough timeline—certain men are more likely to sexually transgress because their consent perceptions and sexual decision-making may to some extent be unmoored from the women's actual sexual intentions. That notwithstanding, we also found evidence that men on average are using perceptions of consent to guide their decision-making and are actively processing situational factors to calibrate their partner's sexual intentions, suggesting potential avenues for prevention efforts targeting perceptions of consent.

Limitations and Future Research Directions

There are several limitations of the study to consider. First, although the literary narrative of the vignettes was oriented to reflect hook-up encounters, the vignettes may fail to parallel the sexual experiences of our sample's participants or the broader population of emerging adults. Participants also could be performatively responding or reporting their approximation of a desirable response. That is, some individuals may have been aware of socially unacceptable responses to these vignettes and avoided endorsing certain sexual behaviors. It is possible that these same individuals behave very differently in a real-world situation with a sexual partner. Although our approach may not fully capture the decision-making of individuals who may be feigning appropriate sexual conduct in the vignettes, this possibility raises interesting questions as to why they may have still reported sexual willingness following passive responding. Next, participants were prompted to rate the likelihood that consent for sexual activity was established, as well as the likelihood of engaging in certain behaviors following a hypothetical passive response. However, this scenario may not reflect the cognitive decision-making processes that occur in men during a real-world sexual encounter, perhaps especially among those high in hostile masculinity. Finally, the experimental vignettes were tested prior to administration of the characterological and attitude scales. While these scales assess trait-level phenomena, responses nevertheless may be impacted by consideration of the preceding hypothetical sexual encounters. However, an important caveat is that the characteristics of our sample were uncorrelated with the situational dimensions of the scenario in the vignette, and suggested that the order of administration had limited influence on participants' responding (see Table S2 in the online supplement for the full correlation matrix).

Other limitations to the current work concern our samples and recruitment strategies. First, participants were recruited via different online platforms, and although statistical analyses indicated that the groups responded similarly to each other, it is possible they constitute different populations. For example, students who completed the study for psychology credit ($n = 73$) may have had different levels of motivation and/or sexual behaviors than individuals participating for monetary compensation. The differential in participant compensation also raises the issue of equity in research subject incentives and future investigators would do well to evaluate appropriate compensation for completion of online studies involving sexual content, especially on crowdsourcing platforms such as MTurk. Second, for individuals who were missing less than half of their responses, mean imputation was carried out at the item level to generate complete cases. Mean imputation is a robust solution for missing item data, as has been described elsewhere (Hawthorne et al., 2005),

but any strategy for imputing missing data is ultimately an educated mathematical guess. Finally, due to data quality and missingness, 142 participants were excluded from analyses, which is a common drawback of internet surveys (Mirzaei et al., 2022). Whether the pattern of findings in this study would change by including valid data from the participants who were excluded due to poor data quality is difficult to ascertain.

Overall, implications for clinical practice must be tempered as these inherent drawbacks in our methodological approach reduce the generalizability of the current work. However, our findings begin to outline a cognitive decision-making process that is relevant to the initiation of sexual advances in the context of passive and ambiguous responses. It remains to be clarified how a passive response is sequentially processed by individuals in these situations. For instance, there may be variance in how sexual approach behaviors are initiated depending on the order in which situational stimuli are presented dynamically over time, as opposed to a static vignette. The individual and cumulative impact of these cues on perceived consent and/or sexual decision-making may also vary between individuals in a particular situation or relationship context. It also appears clear that sexual approach goals are being pursued by individuals at the highest levels of hostile masculinity irrespective of consent, but it is not presently known when and how these goals are activated. Understanding the point at which men's cognitive processing becomes biased towards perceiving consent may highlight key moments and phases for intervention. Future investigators may seek to test perceptions and behavioral tactics at multiple moments during the development of a sexual encounter to evaluate how cognitive processing and decision-making evolves.

Practice Implications

The findings of this study have implications for the development of targeted interventions aimed at reducing instances of unwanted sexual behavior, particularly in scenarios where a passive response is involved. Interventions that prioritize enhancing individuals' understanding of consent perceptions (see Orchowksi et al., 2023) may be especially effective, as the results highlight a strong correlation between perceived consent and subsequent sexual decisions. Men also appeared to be actively processing situational information to calibrate their perceptions of consent. This underscores the need for educational programs that emphasize the nuances of consent and promote open and more explicit communication between partners (Darden et al., 2019). Psychoeducation outlining forms of passive responding and the degree of ambiguity in such sexual encounters may ultimately support more accurate appraisals of consent.

It is important to emphasize that these interventions may need to be tailored to those elevated on dispositional traits like hostile masculinity and impersonal sexual orientation, which were found to impact perceptions and decisions. Targeted interventions could address underlying attitudes associated with these traits or by considering the target population in question. Indeed, recent work has demonstrated that men at the highest risk for engaging in sexual assault may increase their problematic behavior in response to generalized prevention programs (Malamuth et al., 2018). Development of consent interventions that are accepted by hostilely masculine men are especially needed, as this study indicates that they are at highest risk for sexual aggression in the context of passive responding. However, as was observed across models that evaluated the likelihood of advancing the level of sexual intimacy following a passive response, perceptions of consent predicted far less variance in hypothetical behavior than the overall level of hostile masculinity. For individuals whose sexual behaviors are not moored to their partner's level of sexual consent, other contingencies (e.g., legal penalties) may be necessary to reduce the frequency of transgressive sexual behavior. Additional intervention may need to be directed at third parties that receive assault reports (see Holland et al., 2021) to support serious investigation of assaults involving passive responding.

Conclusion

In the face of a passive response, men perceive greater levels of consent and willingness for sexual behavior. Elements of a sexual situation and a given man's dispositional orientation both influence interpretations of consent. Furthermore, perceptions of consent are highly predictive of men's sexual decision-making in these scenarios. Trait-level hostile masculinity exerted the strongest predictive influence on sexual behavior indirectly and also independent of perceptions of consent. Impersonal sexual orientation and aspects of the situation were also relevant but operated on decision-making through their associations with consent perceptions. These findings suggest the need for interventions that target men's perceptions of consent and decision-making processes in the context of passive responding to sexual advances. Importantly, these findings highlight that such interventions may be less relevant for men high in hostile masculinity, who appear to represent the greatest risk for sexual transgressions in this context. Future research is needed on how passive responses are iteratively processed by men of differing dispositional qualities to help guide the development of in-the-moment interventions to prevent unwanted sexual transgressions.

Appendix: Example Vignette

The following is one possible complete vignette presented to a participant:

You just spent an evening out with Alyssa, a girl you think is really attractive. You've been dating her for several weeks. You think Alyssa looks really sexy. She's wearing a short skirt and a blouse that shows her cleavage. You know that Alyssa has had casual sex with several guys since she's been in college. Although you haven't had sex with Alyssa, you're really hoping you'll get the chance to 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 for a while, you and Alyssa start kissing. After a few minutes of making-out you're feeling really turned on, so you start to reach under Alyssa's shirt. Alyssa stops responding but doesn't resist you in any way.

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Data Availability The data as well as the SPSS syntax used to conduct analyses can be found at the following Open Science Framework link: <https://osf.io/aq3sf/>.

Compliance with Ethical Standards

Ethical Compliance The Binghamton University Institutional Review Board approved this human subjects research and all subjects provided informed consent prior to participating in this research.

Competing Interest The authors declare no competing interests.

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