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Exploitative male mating strategies: Personality, mating orientation, and relationship status

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ABSTRACT

Previous research suggests men are sexually attracted to women displaying cues to sexual exploitability. During human evolutionary history, men's agreeableness, orientation towards casual sex, and relationship status may have been recurrently associated with greater net benefits of pursuing a sexually exploitative strategy. We hypothesized these three individual differences would predict men's perceptions of women's sexual exploitability. Seventy-two men viewed photographs of women and rated their sexual exploitability. Men's agreeableness, sociosexual orientation, and current relationship status interacted to predict their perceptions of women's sexual exploitability; among unmated men, the combination of low agreeableness and an orientation toward uncommitted sex was associated with higher perceptions of women's sexual exploitability. This suggests mechanisms motivating sexually exploitative strategies may depend on an interaction between personality characteristics and situational variables.

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1. Introduction

Women differ in the degree to which they are sexually exploitable – susceptible to being manipulated, deceived, coerced, or forced into having sex (Buss & Duntley, 2008). Recent research indicates men can detect physical, psychological, behavioral, and attitudinal cues to women's sexual exploitability, and are sexually attracted to women exhibiting these cues (Goetz, Easton, Lewis, & Buss, 2011). Ancestrally, perceiving cues to sexual exploitability and being attracted to women exhibiting them could have guided men's exploitative short-term mating efforts toward susceptible targets. Among men, certain individual differences may have been linked to reaping greater net fitness benefits from pursuing a sexually exploitative strategy. The current study expands upon recent research on sexual exploitability by examining individual differences in men's perceptions of women's sexual exploitability.

Adaptations to exploit should be activated only under conditions in which the probabilistic net benefits of pursuing an exploitative strategy were recurrently greater than those of non-exploitative alternatives (Buss & Duntley, 2008). Sex differences in minimum obligatory parental investment would have recurrently produced contexts in which men's and women's mating strategies conflicted (Trivers, 1972). This would have created selection pressures for exploitative short-term mating adaptations in men to circumvent female mate-choice barriers. Pursuing a sexually exploitative strategy could have increased a man's reproductive success, but also

could have resulted in a number of costs, such as retaliation from the victim's kin, social ostracism, and loss of the opportunity to engage in a long-term relationship with the victim (Buss & Duntley, 2008). In modern societies, punishment for sexually exploitative acts includes incarceration and sometimes chemical castration (Heim & Hursch, 1979). Upon release, sex criminals suffer reputational damage via community-wide notification of their presence (Rafshoon, 1995). Natural selection would have favored exploitative mating mechanisms whose activation was sensitive to individual differences recurrently associated with gaining these benefits or incurring these costs. In this paper, we examine three individual differences hypothesized to influence activation of exploitative short-term mating mechanisms: agreeableness, sociosexual orientation, and relationship status.

1.1. Individual differences among men and perceptions of exploitability

Differences in ancestral men's agreeableness may have predicted their likelihood of successfully pursuing an exploitative short-term mating strategy. A core facet of agreeableness is empathy (del Barrio, Aluja, & García, 2004; Lievens, Ones, & Dilchert, 2009), an emotional sensitivity to another's feelings or desires. Men with high levels of empathy would have had an advantage in the context of committed relationships because they were less self-serving and more oriented toward cooperation and continued reciprocity (Jonason, Li, Webster, & Schmitt, 2009; Lalumière & Quinsey, 1996; Nesse, 1990; Tooby & Cosmides, 2008). Indeed, inconsiderateness, self-absorption, and unreliability predict conflict in long-term relationships (Buss, 1991). On the other hand, low empathy would have facilitated exploitation of women in

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short-term mating contexts (Jonason et al., 2009). Low empathy would have helped men to pursue women as mates despite the women's desires. Low agreeableness is also associated with higher hostile masculinity – an individual's predilection for sexual aggression (Malamuth, 1998). Low agreeableness is also one of the hallmarks of psychopathy (Bradlee & Emmons, 1992; Paulhus, 2001; Paulhus & Williams, 2002), and men with psychopathic tendencies are more likely to be oriented toward uncommitted sex (Jonason et al., 2009) and sexually assault women than are non-psychopaths (Lalumière & Quinsey, 1996; Lalumière, Harris, Quinsey, & Rice, 2005; McHoskey, 2001; Vernon, Villani, Vickers, & Harris, 2008). Consequently, men low on agreeableness may have had a personality orientation that facilitated the execution of a short-term mating strategy when doing so required sexual coercion or assault (Jonason et al., 2009; Lalumière & Quinsey, 1996). Furthermore, the costs of an exploitative strategy may also have been lower for low agreeableness men. Low agreeableness men would have lacked the cooperative tendencies integral to the maintenance of long-term relationships (Bradlee & Emmons, 1992). If men low on agreeableness were less likely to have long-term relationships that could be jeopardized by being identified as an exploiter, such reputational damage would have been less costly for them. Given the differences in these costs and benefits as a function of men's agreeableness, we hypothesized that selection would have favored sexually exploitative mechanisms that incorporated men's agreeableness in cost-benefit assessments.

Another individual difference hypothesized to influence ancestral men's assessments of the costs and benefits of pursuing an exploitative short-term mating strategy is sociosexual orientation. Sociosexual orientation describes an individual's inclination toward engaging in sexual relations without deep emotional commitment (Penke & Asendorpf, 2008). An unrestricted sociosexual orientation is associated with positive attitudes about, a history of, and a desire for uncommitted sex. Men with an unrestricted orientation report a greater number of short-term sex partners than do men with a restricted orientation (Penke & Asendorpf, 2008; Simpson & Gangestad, 1991). Given that men, on average, desire short-term mating more than women do, and women typically report requiring investment before engaging in sexual intercourse (Buss, 2003; Buss & Schmitt, 1993; Schmitt, Shackelford, & Buss, 2001), successful pursuit of a short-term mating strategy in ancestral conditions may have required exploitative tactics. The greater short-term mating success of men with an unrestricted sociosexual orientation may be indicative of these men's greater ability to use sexually exploitative mating tactics. Furthermore, because unrestricted men are more oriented toward uncommitted mating than are restricted men, they would have more frequently encountered circumstances that required sexually exploitative tactics because their mating goals conflicted with women's. Because of their greater orientation toward short-term sexual relations, men with an unrestricted orientation may also have been less likely to be involved in a committed relationship. Thus, unrestricted men may have been less likely to suffer the costs of retaliatory affairs by a mate or mate defection as a consequence of pursuing an exploitative short-term mating strategy. In short, selection would have favored sexually exploitative mechanisms that took sociosexual orientation as input in cost-benefit assessments because unrestricted men would have likely accrued greater benefits and incurred fewer costs from pursuing such a strategy.

Whereas traits such as low agreeableness and an unrestricted sociosexuality may have increased the likelihood of reaping benefits from an exploitative short-term mating strategy, other characteristics would have been associated with incurring greater costs. A man's current relationship status would have likely affected the costs associated with pursuing an exploitative short-term mating strategy. Men involved in committed romantic relationships bene-

fit from exclusive access to their mates' reproductive resources (Buss, 2003). Short-term mating outside of the pair-bond jeopardizes these benefits by putting mated men at risk for retaliatory affairs or mate defection, nonexistent costs for unmated men (Greiling & Buss, 2000; Starratt, Popp, & Shackelford, 2008). Because the costs of pursuing short-term mating would have been higher for men in committed relationships, we hypothesized selection would have favored exploitative short-term mating mechanisms that incorporated current relationship status in their cost-benefit calculus.

1.2. Predictions about sexually exploitative men

The present study examined how men's agreeableness, sociosexual orientation, and relationship status influenced men's perceptions of women as sexually exploitable. Goetz and colleagues (2011) found men can detect cues to sexual exploitability and are sexually attracted to women exhibiting these cues, suggesting that perceiving women as exploitable motivates men to pursue women for exploitative short-term mating opportunities. Thus, we measured men's perceptions of women as sexually exploitable as an indicator of the activation of sexually exploitative mechanisms. Because men low in agreeableness, men with an unrestricted sociosexual orientation, and men not involved in an exclusive relationship would have accrued greater benefits or incurred fewer costs from deploying an exploitative short-term mating strategy, we predicted the following individual differences among men in their perceptions of women's sexual exploitability:

Prediction 1: Lower levels of agreeableness will predict greater perceptions of women's sexual exploitability.

Prediction 2: A more unrestricted sociosexual orientation will predict greater perceptions of women's sexual exploitability.

Prediction 3: Current involvement in an exclusive relationship will predict lower perceptions of women's sexual exploitability.

We also sought to explore whether such perceptions reflect a general tendency to perceive women as sexually exploitable or a sensitivity to cues to exploitability. Goetz and colleagues (2011) tested 63 hypothesized physical, psychological, and behavioral cues to sexual exploitability and found that seven distinct cues predicted elevated perceptions of women as sexually seduceable, deceivable, pressurable, and assaultable. These cues – *intoxicated*, *immature*, *reckless*, *flirty*, *“easy”*, *promiscuous*, and *partying* – were also those most highly correlated with overall perceptions of women's exploitability. If unrestricted, unmated, lower agreeableness men have a specific sensitivity to cues to exploitability, then these individual differences should predict perceptions of the exploitability of women exhibiting high, but not low, levels of these cues. However, if unrestricted, unmated, lower agreeableness men have a general tendency to perceive women as sexually exploitable, then these individual difference variables should predict perceptions of the exploitability of women who exhibit high as well as low levels of these cues.

2. Method

2.1. Participants

Seventy-two heterosexual males, ages 18–47 ($M = 19.61$, $SD = 3.86$), enrolled in an introductory psychology course at a large, public university in the southwestern United States participated in the current study. Thirty men reported they were currently involved in an exclusive relationship. To avoid fatigue effects, participants were randomly assigned to one of three groups, each of which viewed approximately one-third of 110 photographs (one group viewed 36 photographs and the other two viewed 37;

approximately 40 photographs could be viewed and rated in an hour-long session). Photographs within each group were displayed in the same order across participants. All participants provided informed consent and received partial course credit for their participation.

2.2. Materials

2.2.1. Photographic stimuli

A stimuli set of photographs depicting 110 women in a variety of social contexts, displaying a variety of emotions, and dressed in varying attire were obtained from public access websites. This photo set was assembled by searching the internet for photographs of women exhibiting differing levels of cues to sexual exploitability. An independent sample then rated the degree to which the depicted women exhibited hypothesized cues to sexual exploitability on a 1 (not at all) to 7 (extremely) scale (see Goetz et al., 2011 for full details on the cue rating procedure and inter-rater reliability analyses).

2.2.2. Participant surveys

2.2.2.1. Perceptions of women's exploitability. Participants completed a survey assessing their perceptions of the photographed women's sexual exploitability. Four items measured perceptions of the women's sexual exploitability. The first question asked, "How easy would it be for a man to seduce this woman into engaging in sexual intercourse?" The next two questions used the same wording, but "seduce" was replaced in the second and third questions, respectively, with "pressure" and "deceive". The fourth question asked, "How easy would it be for a man to sexually assault this woman?" All items were assessed on a 1 (not at all) to 5 (extremely) Likert-type scale.

2.2.2.2. Personality and mating strategy. To assess participants' personalities and mating strategies, the researchers created a brief questionnaire that included the Ten-Item Personality Inventory (TIPI, Gosling, Rentfrow, & Swann, 2003), and the Revised Sociosexuality Orientation Inventory (SOI-R, Penke & Asendorpf, 2008). The TIPI contains two items for each factor of the Five Factor Model (FFM; Costa & McCrae, 1992), and assesses agreeableness with the items "sympathetic, warm" and "critical, quarrelsome." The TIPI is a reliable measure and demonstrates convergent validity with lengthier personality measures (Ehrhart et al., 2009; Gosling et al. 2003). The SOI-R is a nine-item questionnaire that assesses individuals' history of, attitudes about, and desire for uncommitted sex. Sample items include "With how many different partners have you had sexual intercourse without having interest in a long-term committed relationship with that person?" and "How often do you experience sexual arousal when you are in contact with someone you are not in a committed romantic relationship with?" All items are scored on a five-point response scale and summed to form a composite SOI-R score. Higher SOI-R scores reflect a more unrestricted orientation.

2.3. Procedure

After obtaining informed consent, a research assistant directed the participant to a laboratory computer on which a slide show of one of the three subsets of the photographs was preloaded. The research assistant showed the participant how to scroll through the photographs and provided the participant with a response grid on which to record their ratings of the depicted women. Participants completed the assessments privately. To avoid fatigue effects, the research assistant re-entered the room after 25 minutes and asked participants to complete the survey portion

of the study before finishing their photograph ratings. Upon completing the study, participants were debriefed and thanked.

3. Results

The four exploitability items were positively correlated with one another (seduce-pressure $r = 0.80$, seduce-deceive $r = 0.70$, seduce-assault $r = 0.46$, pressure-deceive $r = 0.81$, pressure-assault $r = 0.59$, deceive-assault $r = 0.57$; all $ps < 0.001$). We thus created a composite exploitability rating by standardizing the mean scores for each item and averaging them. To ensure there were no systematic differences based on the group of pictures viewed, we conducted a one-way analysis of variance to compare mean exploitability ratings between the three picture groups. There were no significant group differences, ANOVA: $F(2, 69) = 1.891$, $p = n.s.$

Because sociosexual orientation and agreeableness were continuous variables, and the dichotomous relationship status variable could be dummy coded, we were able to run multiple regression analyses to test the predicted main effects and explore interactions between men's agreeableness, sociosexual orientation, and relationship status.

3.1. Perceptions of women's sexual exploitability

The three-way interaction between men's agreeableness, sociosexual orientation, and relationship status predicted perceptions of women's sexual exploitability, $\beta = 1.70$, $t(64) = 2.31$, $p = 0.02$, $f^2 = 0.07$ (Table 1). Among unmated men, those with a more unrestricted sociosexual orientation and lower levels of agreeableness perceived women as more sexually exploitable, whereas there was no link between lower levels of agreeableness and perceptions of women's exploitability among unmated men with a more restricted sociosexual orientation (Fig. 1). Exploration of the interaction via simple slope difference tests confirmed that the effect of agreeableness was significantly stronger among unrestricted men (SOI+1SD) than among restricted men (SOI-1SD), $t(70) = 2.05$, $p = 0.04$. Among mated men, lower levels of agreeableness were associated with higher perceptions of women's exploitability, but this effect did not differ between unrestricted and restricted men, $t(70) = 0.96$, $p = 0.34$. Men higher in agreeableness and with a more restricted sociosexuality had the lowest perceptions of women's exploitability among mated men (Fig. 1).

3.2. Sensitivity to cues or general tendency to perceive women as exploitable?

To determine whether higher perceptions of women's sexual exploitability among some men reflected a general tendency to perceive women as sexually exploitable or a sensitivity to cues to exploitability, we reran the regression model on specific subsets

Table 1
Regression model predicting perceptions of women's sexual exploitability.

	B	SE	β
<i>Individual differences</i>			
Agreeableness	0.25	0.24	0.58
Sociosexual orientation	0.72	0.29	0.65*
Relationship status	2.52	1.00	1.46*
<i>Two-way interactions</i>			
A \times SOI-R	-0.14	0.09	-1.00
A \times RS	-0.93	0.38	-1.69*
SOI-R \times RS	-0.89	0.36	-1.51*
<i>Three-way interaction</i>			
A \times SOI-R \times RS	0.31	0.13	1.70*

Note: * $p < 0.05$.

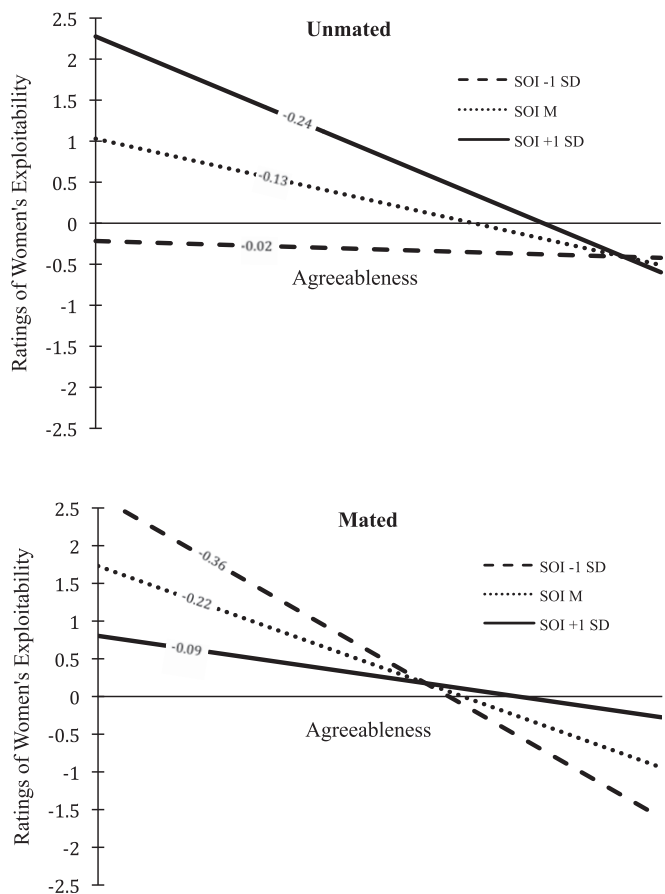


Fig. 1. Three-way interaction between agreeableness, sociosexuality, and relationship status. Lines represent model-generated predicted values of men's perceptions of women's sexual exploitability. Superimposed values indicate slopes for the effect of agreeableness at different levels of sociosexual orientation. Among unmated men (top), lower levels of agreeableness predicted higher perceptions of women's exploitability, an effect that was stronger among men with a more unrestricted sociosexual orientation (SOI +1 SD) than among men with a more restricted sociosexual orientation (SOI-1 SD). Lower levels of agreeableness also predicted higher perceptions of women's exploitability among mated men (bottom), but this effect did not depend on men's sociosexual orientation.

of women who exhibited either high or low levels of cues to exploitability. Goetz and colleagues (2011) had an independent sample rate the degree to which the same women used as stimuli in the current study were *intoxicated*, *immature*, *reckless*, *flirty*, "easy", *partying*, and *promiscuous* on a 1 (not at all) to 7 (extremely) scale. Based on these ratings, we separated those women with a mean rating on these cues greater than 4 from those women who had a mean rating below 4, and ran the regression model on each of these subsets of the women.

The same interaction between men's agreeableness, sociosexual orientation, and relationship status predicted perceptions of the sexual exploitability of *intoxicated* [$\beta = 1.72$, $t(64) = 2.33$, $p = 0.02$], *immature* [$\beta = 1.58$, $t(64) = 2.12$, $p = 0.04$], *reckless* [$\beta = 1.97$, $t(64) = 2.61$, $p = 0.01$], *flirty* [$\beta = 1.62$, $t(64) = 2.16$, $p = 0.03$], *partying* [$\beta = 1.76$, $t(64) = 2.46$, $p = 0.02$], and *promiscuous* [$\beta = 1.61$, $t(64) = 2.18$, $p = 0.03$] women, and was a marginally significant predictor of the perceptions of the sexual exploitability of "easy" [$\beta = 1.31$, $t(64) = 1.76$, $p = 0.08$] women. This same interaction, however, also predicted perceptions of the sexual exploitability of women who were not *immature* [$\beta = 1.52$, $t(64) = 2.03$, $p < 0.05$], *flirty* [$\beta = 1.57$, $t(64) = 2.09$, $p = 0.04$], "easy" [$\beta = 1.53$, $t(64) = 2.07$, $p = 0.04$], or *promiscuous* [$\beta = 1.57$, $t(64) = 2.15$, $p = 0.04$], and was a marginally significant predictor of the percep-

tions of the sexual exploitability of women who were not *intoxicated* [$\beta = 1.36$, $t(64) = 1.79$, $p = 0.08$], *reckless* [$\beta = 1.29$, $t(64) = 1.72$, $p = 0.09$], or *partying* [$\beta = 1.38$, $t(64) = 1.80$, $p = 0.08$].

4. Discussion

Results provide support for the hypothesis that individual differences in men's agreeableness, sociosexuality, and current relationship status are associated with differential activation of psychological mechanisms that may motivate men's sexually exploitative short-term mating strategies.

4.1. Women's sexual exploitability

We predicted men's agreeableness, sociosexual orientation, and relationship status would have main effects on their perceptions of women's sexual exploitability, but we found all three individual difference variables interacted to predict men's perceptions of women's exploitability.

We predicted that lower levels of agreeableness would be associated with higher perceptions of women's sexual exploitability, but the relationship between men's agreeableness and their perceptions of women's exploitability was more nuanced than this initial prediction.

As expected, among mated men, lower levels of agreeableness predicted higher perceptions of women's exploitability, independent of sociosexual orientation. Among unmated men, however, the combination of a more unrestricted sociosexual orientation and lower agreeableness was associated with higher perceptions of women's sexual exploitability. Among unmated men with a restricted sociosexual orientation, lower agreeableness was not linked to higher perceptions of women's exploitability.

The sociosexual orientation-dependent link between men's agreeableness and perceptions of women's exploitability among unmated men may reflect a design feature of men's sexually exploitative strategies. The mechanisms motivating a sexually exploitative strategy may take multiple individual differences as input and only be activated when a specific constellation of these individual differences align. When a man does not have a committed relationship that could be jeopardized by exploitative short-term mating, possesses low levels of agreeableness, and has a greater orientation toward uncommitted sex, the synergy of these individual differences may activate an exploitative short-term mating strategy. However, when exploitative short-term mating does not align with a man's sociosexual orientation, as with men with a more restricted sociosexuality, low levels of agreeableness may be insufficient to activate exploitative short-term mating mechanisms, even among unmated men.

The relationship status-dependent link between men's sociosexual orientation and perceptions of women's exploitability may also reflect a design feature of men's sexually exploitative strategies. When men with an unrestricted orientation are unmated and the costs of jeopardizing of a committed relationship are non-existent, their psychological mechanisms motivating sexually exploitative mating strategies are activated. When these men are involved in a committed relationship, however, the costs of jeopardizing the relationship may deactivate these mechanisms.

The finding that men's agreeableness, sociosexual orientation, and relationship status interacted to predict perceptions of the sexual exploitability of women who exhibited high levels of cues to exploitability and women who exhibited low levels of these cues suggests that the higher perceptions of women's exploitability among these men reflect a general tendency to perceive women as sexually exploitable. If these men possessed a specific sensitivity to cues to exploitability, they should have had elevated perceptions

of the exploitability of women exhibiting high, but not low, levels of these cues.

These findings suggest that the mechanisms motivating sexually exploitative mating strategies depend not on a single individual difference dimension, but on an interaction between personality characteristics and situational variables that are collectively associated with fewer costs and greater benefits of exploitative short-term mating. This is consistent with previous findings that men who engage in sexually aggressive behaviors have a personality profile that differs from other men on multiple personality dimensions (Lalumière & Quinsey, 1996; Lalumière et al., 2005). Sexually exploitative strategies may have such high costs that entire constellations of traits must align to activate them. The current study is the first to directly investigate individual differences in these psychological mechanisms motivating sexual exploitation.

4.2. Limitations

Photographic stimuli and questionnaire-based assessment of men's perceptions enabled us to standardize the study across participants, but these methods have several limitations. Sexual exploitation occurs when psychological mechanisms respond to real-life, interpersonal interactions. Future studies could use stimuli that have greater ecological validity. Photographs contain only static cues to women's exploitability and attractiveness; the use of video stimuli or interactions with actual women may enable researchers to gain a more complete understanding of the contextual factors activating men's exploitative short-term mating strategies. Sexual exploitation is also the behavioral output of psychological mechanisms. To better understand the relationship between the perception of women as sexually exploitable and actual sexually exploitative behavior, future work should measure variables more proximate to actual attempts at sexual exploitation. Assessing men's physiological arousal or reported likelihood of attempting to exploit women, for example, may provide insight into the behavioral output that results from these perceptions (Ariely & Loewenstein, 2006).

4.3. Future directions

Future research should explore the interaction between individual differences in women's exploitability and male individual differences in predicting the activation of exploitative short-term mating mechanisms. Such research would lead to a precise and nuanced understanding of the causal mechanisms underpinning exploitative short-term mating strategies. At an applied level, knowledge of the specific individual and contextual factors most likely to put women at risk could be used to reduce sexual exploitation of women.

5. Conclusions

The current study makes several novel contributions toward understanding the psychology of sexual exploitation. This study is the first to demonstrate an association between personality traits, such as agreeableness and sociosexual orientation, and cognitions motivating sexually exploitative behavior. The current study is also the first to demonstrate an interaction between stable personality traits and situational variables, such as relationship status, in producing cognitions and emotions that motivate sexually exploitative behavior. These findings represent a modest but important first step toward understanding individual differences in men's motivations to sexually exploit women, knowledge that ultimately could contribute to preventing sexual victimization.

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