Men’s attitudes toward third party casual sex predict rape myth acceptance

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ABSTRACT

The reproductive self-interest model of morality (RSIMM) is a framework for understanding moral judgments associated with sexual behavior. This model posits that individual differences in sexual strategies, mediated by one’s religiosity and political orientation, casually influence people’s moral judgments toward social hot-button issues. Previous work on the RSIMM has explained individual differences in attitudes toward abortion, prostitution, and contraception. Individuals more interested in long-term mating judged these behaviors as morally wrong. In this preregistered study, we proposed the RSIMM would account for individual differences in rape myth acceptance (RMA). RMA is the phenomenon of endorsing beliefs or stereotypes about rape that diminish the severity of assaults or shift blame from perpetrators to victims. We examined the relationship between political orientation, attitudes toward third-party casual sex, and RMA in a convenience sample of 308 participants (137 women). We predicted that more negative attitudes toward third parties’ casual sex would correlate with increased RMA. Our hypothesis was supported for men but not women: Men who condemned others’ casual sex, had more unrestricted attitudes about their own casual sex, and desired more casual sex were statistically more likely to accept more rape myths. In the discussion, we speculate that sex differences in the relationship between attitudes towards casual sex and RMA may be due to the costs of rape incurred by women but not men.

KEYWORDS

rape myth acceptance, rape myths, condemnation, sexual strategies, reproductive self-interest model of morality

Victim blaming, under-report of sexual assaults, and acquittals of rape allegations are positively associated with acceptance of rape myths – or false beliefs and stereotypes about rape (Grubb & Turner, 2012; Heath & Davidson, 1988; Hildebrand & Najdowski, 2014; Li & Zheng, 2022; Paul, Gray, Elhai, & Davis, 2009; Romero-Sánchez et al., 2018; Sinclair & Bourne, 1998). Victim blaming is associated with negative psychological outcomes such as reputational damage, depression, and anxiety (Wilson, Farley, & Horton, 2022). Understanding who endorses rape myths and why is essential. Rape myth acceptance (RMA) is the phenomenon of endorsing beliefs or stereotypes about rape that diminish the severity of assaults or shift blame from perpetrators to victims (Burt, 1980). Robust predictors of RMA include gender, sexual behavior, and age (e.g., Suarez & Gadalla, 2010). In the current paper, we tested three predictions derived from the hypothesis that individual differences in RMA may be partially driven by the usefulness of RMA to an individual’s sexual strategy – testing the Reproductive Self-Interest Model of Morality (RSIMM, Kurzban, Dukes, & Weeden, 2010; Weeden & Kurzban, 2014). We review existing research on predictors of RMA and the RSIMM. Next, we apply the RSIMM to understand individual differences in RMA.
PREDICTORS OF RMA

Most rape myths are beliefs and attitudes that diminish the severity of rape or shift the responsibility from the perpetrator to the victim. While rape myths sometimes include false beliefs about the prevalence and severity of rape (Payne, Lonsway, & Fitzgerald, 1999), the short form of the Illinois Rape Myth Acceptance scale (IRMA; McMahon & Farmer, 2011) focuses on four categories of beliefs that shift blame from perpetrator to victim. Some rape myths suggest that the victim “asked for it.” Some sympathize with the perpetrator, implying that he “didn’t mean to” rape the victim. Others are concerned with what counts as “real” rape. Finally, some rape myths suggest that women lie when they claim they were raped. Rape myth acceptance is the endorsement of these attitudes and ideas.

Suarez and Gadalla (2010) found several robust predictors of RMA including participants’ gender and accepted discriminatory attitudes. They found that men, on average, endorse more rape myths than women, Cohen’s $d = 0.58$ (Suarez & Gadalla, 2010). Several discriminatory attitudes, including sexism, heterosexism, and ageism were associated with higher RMA. Lastly, hostile attitudes toward women and demographic variables including older age correlated with higher RMA.

Recent research has further identified relationships between RMA and participants’ sexual behavior, sexual desire, and sexual attitudes. RMA positively correlates with reported perpetration of various acts of sexual coercion (Trottier, Benbouriche, & Bonneville, 2021; Yapp & Quayle, 2018). The more sexual partners a participant has had, the more likely they were to endorse rape myths (Fansher & Zedaker, 2020). In a study of male clients’ attitudes towards female sex workers, men’s self-reported frequency of sexual thoughts positively predicted RMA (Monto & Hotaling, 2001). Sexual conservatism—moral judgments about sexual behavior associated with conservative beliefs—also predicts greater levels of RMA (Monto & Hotaling, 2001; Owens, Lewis Hall, & Anderson, 2020).

From an evolutionary perspective, the phenomenon of RMA may be a form of coordinated condemnation of promiscuous sexual behavior. Through discouraging rape victims’ legitimacy by shedding doubt on the fault of the alleged perpetrator, rape myths create a more restricted definition of rape—increasing the plausible deniability of the perpetrator. This plausible deniability may benefit individuals depending on their sexual strategy. While evidence suggests that RMA relates to a person’s sexual behavior, desire, and attitudes, we know of no direct test of sexual strategies predicting RMA. The RSIMM marries the concepts of coordinated condemnation through moralization of certain behaviors and individuals’ sexual strategies.

SEXUAL STRATEGIES AND MORAL JUDGMENTS

A sexual strategy is a series of—conscious or not—tactics serving the attainment of a particular set of reproductive goals including securing, maintaining, and navigating sexual relationships (Buss & Schmitt, 1993). While there are many components of sexual strategies, much of their variation can be captured by temporal orientation: preferences for short-versus long-term relationships (Buss & Schmitt, 1993).

On average, women more than men orient their sexual strategies toward the long-term—seeking greater investment and commitment from their partners than short-term strategists. Due to the nature of mammalian reproduction, ancestral cisgendered women were biologically required to invest significantly more time and resources in their children than ancestral cisgendered men (Trivers, 1972). The combination of a limited pool of gametes, nine-month gestation period, and one to three years of breastfeeding dwarfs the biological requisite contribution of cisgendered men. Ancestral cisgendered men needed only to contribute enough sperm to fertilize the ovum of fertile ancestral, cisgendered women to whom he had sexual access. Therefore, the cost-benefit ratio for sexual activity was lower for ancestral, cisgendered men than ancestral, cisgendered women (Trivers, 1972). Each instance of sexual intercourse was, on average, less reproductively costly for ancestral, cisgendered men than ancestral, cisgendered women.

Despite robust sex differences in population averages of short-versus long-term sexual strategies, there exist large variability. Many men are monogamous and are not attracted to casual sex. Many women prefer casual sex or polyamory over monogamous relationships (Buss, 1991; Simpson & Gangestad, 1992). The sexual strategies individuals follow are heavily influenced by circumstances mediating the probable success of said strategy (Buss & Schmitt, 1993). Moral judgments surrounding sexual activity present an ecological context that could facilitate or impede sexual strategies.

THE RSIMM

The RSIMM accounts for variation in moral judgments as a function of an individual’s sexual strategy, mediated by their political orientation and religiosity. The incorporation of sexual strategies into the political and religious underpinnings of morality is unique to the RSIMM (Kurzban et al., 2010). Individuals are predicted to morally condemn others’ behavior when it conflicts—or is perceived to conflict—with successful implementation of their own sexual strategy.

According to the RSIMM, moral judgments about others’ sexual behavior are often manifestations of the underlying sexual strategies of the individual upholding the judgment (e.g., Buss, 2016; Weeden & Kurzban, 2016). It is often in the best interests of individuals oriented toward long-term sexual strategies to morally condemn attitudes and behaviors associated with promiscuous behaviors. In environments where promiscuous behavior is promoted, or at least not inhibited, long-term relationships are more difficult to attract and maintain for various reasons: (1) to the degree there are women following short-term sexual strategies, men become more reluctant to commit to long-term relationships (Buss, 1989), (2) opportunities for extra-pair copulations increase,
and (3) successfully fending off mate-poachers requires finite time and energy (Buss, 2002, 2016; Ein-Dor, Perry-Paldi, Hirschberger, Birnbaum, & Deutsch, 2015). By condemning promiscuous behaviors, long-term oriented individuals create environments facilitating the ease of their sexual strategy. Alternatively, individuals oriented toward short-term sexual strategies are expected to morally condemn attitudes and behaviors restricting promiscuous behaviors—ultimately increasing access to short-term relationships. Thus, selective moral condemnation likely operates as a strategic component of one’s sexual strategy (Buss, 2016).

Support for the RSIMM

Studies of moral beliefs, religious attendance, and hot-button social issues—such as attitudes toward abortion, contraception, and prostitution—support the RSIMM. One hypothesized function of religious institutions is facilitating long-term, socially monogamous sexual strategies (Weeden, Cohen, & Kenrick, 2008). Cross-cultural data suggest that reproductive moral beliefs, such as avoidance of adultery, predicted religiosity better than cooperative moral beliefs, such as avoidance of lying and stealing (Weeden & Kurzban, 2013). Preferred sexual strategies were central to individual differences in attraction to religious groups and frequency of religious attendance (Weeden et al., 2008). The effects of age and gender on religious attendance were statistically reduced when controlling for sexual strategies. Individuals oriented toward long-term sexual strategies are more likely to condemn abortion, contraception, and legalization of prostitution compared to individuals oriented toward short-term sexual strategies (Weeden, 2003; Weeden & Kurzban, 2016). Abortion, contraception, and prostitution are all associated with perceptions of promiscuity (Caslin & Laite, 2020; Weeden, 2003; Weeden & Kurzban, 2014).

CURRENT STUDY

In the current paper, we tested three predictions derived from the hypothesis that RMA is partially driven by its usefulness to promoting sexual strategies. Because mating psychology differs between men and women (Buss & Schmitt, 1993), we delineate predictions by sex. Preregistration of our hypothesis, design, and data analysis plan are available on OSF (https://bit.ly/RSIMM_OSF).

Sex differences in RMA

As reviewed above, RMA is associated with decreased perceptions of responsibility of the perpetrator (e.g., Grubb & Turner, 2012; Suarez & Gadalla, 2010) and increases perceptions of the victims’ responsibility (Brownmiller, 1975; Burt, 1980; Grubb & Turner, 2012; Romero-Sánchez, Krahé, Moya, & Mégias, 2018). Men’s rape proclivity—i.e., likelihood to commit a rape—is positively related to their rape myth acceptance (e.g., O’Connor, 2023; Seabrook, McMahon, & O’Connor, 2018). Several studies have established a positive correlation between men’s perceptions of their peers’ rape myth acceptance and increased likelihood to commit sexual violence (Böhner, Pina, Tendayi Viki, & Siebler, 2010; Mulla et al., 2019; Oesterle, Orchowski, & Berkowitz, 2023). Those men who accept high rates of rape myths are also more likely to minimize the perceived costs associated with sexual violence (Fortuna & Gulla, 2020; Idisis & Edoute, 2017; Newcombe, Van Den Eynde, Hafner, & Jolly, 2008). Furthermore, an estimated 98–99% of all rapes are perpetrated by men (Greenfeld & Snell, 1999; Mears, 2020). Since RMA is hypothesized to decrease the culpability of the perpetrator, it may be in some men’s self-interest to question rape victims’ legitimacy by endorsing rape myths. That is, it may be beneficial for men engaging in sexually coercive behavior to endorse rape myths as a “means to rationalize and justify their own tendencies to engage in sexual aggression,” and therefore not really rape (Böhner, Eyssel, Pina, Siebler, & Viki, 2009, p. 34).

While potentially traumatizing to all, rape is particularly costly for women. When raped, women may experience unwanted or untimely pregnancies (Gottschal & Gottschall, 2003), physical damage (Lalumière, Harris, Quinsey, & Rice, 2005), and circumvention of mate-choice (Arnvist & Rowe, 2005)–among other interpersonal costs (e.g., damage to sexual and social reputation, Perilloux et al., 2012a; anxiety and depression; Kilpatrick, Resnick, & Veronen, 1981; Oshodi, Macharia, Lachman, & Seedat, 2020). On average, it may not be in a woman’s self-interest endorse rape myths and question the legitimacy of rape victims. Therefore, we predicted men would endorse more rape myths than women (Prediction 1).

The RSIMM and Men’s RMA

Men oriented toward short-term sexual strategies may experience more frequent ambiguous sexual interactions compared to men oriented toward long-term sexual strategies. Men oriented toward short-term strategies are likely to engage in more frequent opposite-sex interactions where they may misinterpret women’s sexual intent (Perilloux et al., 2012b). Rape myths instill doubt about the definition of rape, possibly enabling men’s interpretation of ambiguous, sexual interactions as consensual and benefiting their sexual strategy—consciously or not. Through instilling doubt about the definition of rape, RMA may associate rape victims with promiscuous behavior.¹

Men oriented toward long-term sexual strategies may also be motivated to reduce the accessibility of casual sex in

¹Rape myth acceptance has been associated with stereotypes and perceptions of women’s promiscuity. Many rape myths—in and of themselves—address the perceived promiscuity of the rape victim (e.g., “A woman who has a history of promiscuous behavior has only herself to blame if she is raped” [p. 480, Freymer, 1997] and “In the majority of rapes, the victim is promiscuous or has a bad reputation” [p. 282, (Monti & Hotaling, 2001)]. Studies have also found that individuals high in rape myth acceptance perceive victims as wanting more sex (Workman & Orr, 1996) and more promiscuous than non-victims (see Hocket et al., 2016 for meta-analysis). Much discussion around promiscuity, blame attribution to victims, and rape myth acceptance revolves around rape myths’ effects on the definition of rape (e.g., Burt, 1980, 1991; Burt & Albun, 1981; Freymer, 1997).
the environment. RMA may serve the self-interest of these men by condemning a variety of women’s behavior and associating more women with promiscuous behavior – resulting in environments that more readily uphold long-term sexual strategies. While the constructs of RMA, sociosexual orientation, and condemnation of promiscuous sexual behavior covary, the hypothesized link of interest includes the perception of threat to one’s ability to maintain long-term relationships—if the man is oriented toward a long-term mating strategy. Men oriented toward long-term sexual strategies—and those who have negative attitudes toward others’ casual sex—are expected to accept more rape myths and view coercive sex as consensual, promiscuous sex.

If rape myths blur the boundaries between coercive and casual sex and both men oriented toward short- and long-term sexual strategies benefit in different ways, then men’s RMA. Specifically, we predicted no strong linear relationship between men’s SOI and RMA (Prediction 2).

The RSIMM and Women’s RMA

Rape is particularly costly to women’s reproductive fitness. To protect themselves against these costs, it is in the best interest of women oriented toward short-term sexual strategies to be highly motivated to create distinctive boundaries between coercive and casual sex. By rejecting rape myths, a more clear definition of rape is maintained.

Women oriented toward long-term sexual strategies may be motivated to reduce access to casual sex. Increased access to casual sex within an environment may interfere with women’s long-term sexual strategies. Like men oriented toward long-term sexual strategies, the higher standards for what meets the definition of rape created through high rates of RMA may benefit these women by associating rape victims with promiscuous behaviors. Thus, RMA may facilitate the ease of long-term sexual strategies. We predicted that women with more unrestricted SOIs would accept lower rates of rape myths compared to women with more restricted SOIs. For a list of predictions, see Table 1.

**Table 1. Predictions**

<table>
<thead>
<tr>
<th>Prediction</th>
<th>1</th>
<th>Men would endorse more rape myths than women.</th>
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<tbody>
<tr>
<td>2</td>
<td>No strong linear relationship between men’s SOI and RMA.</td>
<td></td>
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<tr>
<td>3</td>
<td>Women with more unrestricted SOIs would accept lower rates of rape myths compared to women with more restricted SOIs.</td>
<td></td>
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</tbody>
</table>

**Note.** Table indicates predictions made by the Reproductive Self-Interest Model of Morality.

(a preregistered exclusion criterion; n = 97). Two participants were removed from final analyses for indicating they were less than 18 years old. We only included participants identifying as men and women due to our specific predictions. Therefore, we removed 11 participants identifying as “other” in final analyses.

A total of 308 participants (171 men; 137 women) were included in final analyses. Participants ranged between 18 and 73 years old (M = 30.9, SD = 12.7). Our participants identified as primarily heterosexual (n = 210; 68%), bisexual (n = 63; 21%), homosexual (n = 19; 6%), and “other” (n = 18; 5%). Our participants were mainly white/Caucasian (n = 254; 82%). For more information on participants’ demographics, see the supplementary materials (Table S1).

**METHOD**

**Power analyses**

We ran two a priori power analyses: correlational and linear multiple regression. For the bivariate correlation with two tails, alpha set to 0.05, and a medium expected relationship, the necessary sample size was 138. For a linear multiple regression with a medium expected effect size, alpha of 0.05, and three predictors, the total required sample size stated by G*Power was 119 individuals.

**Participants**

We surveyed 418 participants through social media. We removed 110 participants during data processing. Participants were removed for failing to take at least seven minutes
a committed romantic relationship?” (Penke & Asendorpf, 2008; p. 1135). Omitting item 7 minorly affected the reliability of the desire subscale, $\alpha = 0.80$. Since no participants saw item 7 and the reliability of the subscale was still acceptable, we included the subscale without item 7 in all analyses.

**Attitudes toward third party casual sex.** SOI is largely self-focused and assesses one’s recent sexual behavior, attitudes, and desire, so we added two items. We designed these items to capture participants’ condemnation toward others’ casual sex: “It is okay for two consenting adults to have casual sex” (1-extremely disagree to 9-extremely agree) and “If two consenting adults have casual sex, they are violating morals” (reverse-coded), $r(301) = 0.76, p < 0.001, \alpha = 0.86$.

These two items may capture different motivations in mating psychologies. If attitudes towards others’ casual sex are strongly negative and SOI is restricted, this may provide evidence of coordinated condemnation facilitating ease in

| Table 2. Pearson correlations between theoretical relevant variables separated by participant gender |
|--------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Men’s Correlations ($n = 162$–169) |
| 1. Political Orientation | 1.00 | - | - | - | - | - | - | - | - | - | - |
| 2. Religiosity | 0.41*** | 1.00 | - | - | - | - | - | - | - | - | - |
| 3. SOI Overall | -0.15 | -0.15 | 1.00 | - | - | - | - | - | - | - | - |
| 4. SOI Attitude | -0.52*** | -0.45*** | 0.63*** | -0.10 | - | - | - | - | - | - | - |
| 5. SOI Desire | 0.23** | 0.14 | 0.33*** | -0.23** | 1.00 | - | - | - | - | - | - |
| 6. SOI Behavior | -0.05 | 0.02 | 0.84*** | 0.50*** | -0.10 | 1.00 | - | - | - | - | - |
| 7. Third Party Attitudes | -0.53*** | -0.64*** | 0.42*** | -0.73*** | -0.25** | 0.27*** | 1.00 | - | - | - | - |
| 8. RMA Overall | 0.46*** | 0.10 | 0.01 | -0.25** | 0.30*** | -0.05 | -0.32*** | 1.00 | - | - | - |
| 9. She Asked For It | 0.51*** | 0.22** | -0.04 | -0.32*** | 0.34*** | -0.09 | -0.40*** | 0.90*** | 1.00 | - | - |
| 10. Didn’t Mean To | 0.15 | -0.06 | 0.04 | -0.08 | 0.21** | -0.06 | -0.15* | 0.73*** | 0.49*** | 1.00 | - |
| 11. Wasn’t Really Rape | 0.29*** | 0.07 | 0.13 | -0.09 | 0.25** | 0.09 | -0.24** | 0.78*** | 0.63*** | 0.50*** | 1.00 |
| 12. She Lied | 0.51*** | 0.09 | -0.03 | -0.26*** | 0.22** | -0.03 | -0.23** | 0.83*** | 0.73*** | 0.39*** | 0.57*** | 1.00 |

Women’s Correlations ($n = 133$–137) |
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</tr>
</thead>
<tbody>
<tr>
<td>1. Political Orientation</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>2. Religiosity</td>
<td>0.52***</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
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<tr>
<td>3. SOI Overall</td>
<td>-0.34***</td>
<td>-0.30***</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td></td>
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<tr>
<td>4. SOI Attitude</td>
<td>-0.46***</td>
<td>-0.56***</td>
<td>0.65***</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>5. SOI Desire</td>
<td>0.00</td>
<td>0.20*</td>
<td>0.25**</td>
<td>-0.33***</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>6. SOI Behavior</td>
<td>-0.16</td>
<td>-0.19</td>
<td>0.88***</td>
<td>0.54***</td>
<td>-0.09</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
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<tr>
<td>7. Third Party Attitudes</td>
<td>-0.53***</td>
<td>-0.67***</td>
<td>0.50***</td>
<td>0.69***</td>
<td>-0.21*</td>
<td>0.34***</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8. RMA Overall</td>
<td>0.61***</td>
<td>0.35***</td>
<td>-0.16</td>
<td>-0.28**</td>
<td>-0.03</td>
<td>-0.03</td>
<td>-0.32***</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>9. She Asked For It</td>
<td>0.62***</td>
<td>0.38**</td>
<td>-0.07</td>
<td>-0.22**</td>
<td>0.01</td>
<td>0.04</td>
<td>-0.28**</td>
<td>0.84***</td>
<td>1.00</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>10. Didn’t Mean To</td>
<td>0.26**</td>
<td>0.12</td>
<td>-0.14</td>
<td>-0.08</td>
<td>0.00</td>
<td>0.01</td>
<td>-0.14</td>
<td>0.63***</td>
<td>0.42***</td>
<td>1.00</td>
<td>-</td>
<td></td>
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<tr>
<td>11. Wasn’t Really Rape</td>
<td>0.35***</td>
<td>0.23**</td>
<td>0.03</td>
<td>-0.15</td>
<td>0.01</td>
<td>0.09</td>
<td>-0.19</td>
<td>0.64***</td>
<td>0.68***</td>
<td>0.46***</td>
<td>1.00</td>
<td></td>
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<tr>
<td>12. She Lied</td>
<td>0.60***</td>
<td>0.32***</td>
<td>-0.05</td>
<td>-0.21*</td>
<td>0.01</td>
<td>0.06</td>
<td>-0.22*</td>
<td>0.89***</td>
<td>0.77***</td>
<td>0.46***</td>
<td>0.62***</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. Table displays Pearson correlations between theoretically important variables separated by participant gender. “Third Party Attitudes” indicates the participants’ composite score on their attitudes toward third party casual sex. N’s vary due to pairwise deletion. $p < 0.05$, $p < 0.01***$, $p < 0.001$ ***.
maintaining long-term relationships. If attitudes towards others’ casual sex are positive, SOI is unrestricted, but RMA is high, this may provide evidence that RMA associates coercive sex with consensual sex through falsely assuming a victim’s consent. We explored the relationship of attitudes toward third parties’ casual sex and RMA, above and beyond SOI.

**Illinois Rape Myth Acceptance scale.** The IRMA (Payne et al., 1999; McMahon & Farmer, 2011) includes 22 questions on a 5-point Likert-type scale (1–Strongly Disagree to 5–Strongly Agree; α = 0.92) and contains four subscales assessing the degree to which individuals accept rape myths (Table S2). One item was omitted from analysis from an error in survey creation. Its omission did not affect reliability. The authors originally coded the IRMA so lower values indicated more RMA. To ease data interpretation, we reverse-coded each item – allowing interpretation of larger values as greater amounts of RMA.

**Religiosity scale.** We included five items assessing participants’ religiosity. We obtained these items Kurzban et al. (2010), α = 0.90. The religiosity scale had good internal consistency (α = 0.90). We computed a composite variable from averaging the scores on the religiosity scale items: “how religious are you” (0 – not at all religious to 7 – extremely religious), “how spiritual are you” (0 – not at all spiritual to 7 – extremely spiritual), “how often do you pray while you are alone” (0 – never to 6 – daily), “how often do you attend church” (0 – never to 6 – More than 10 times a month), and “how often are you expecting to attend church in the future” (0 – never to 6 – More than 10 times a month)?

**Ethics.** The current study was approved by the Institutional Review Board at California State University, Fullerton. Participants provided informed consent before participating in the study. Participants were debriefed immediately following completion of the study.

### RESULTS

All statistical analyses were computed in R (R Core Team, 2021). A missing values analysis was computed to identify patterns in missing data. Over all variables, cases of missing data interpretation, we reverse-coded each item – allowing interpretation of larger values as greater amounts of RMA.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>β</th>
<th>95% CI [LL, UL]</th>
<th>sr²</th>
<th>95% CI [LL, UL]</th>
<th>Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>0.35**</td>
<td>[0.17, 0.53]</td>
<td>0.00</td>
<td>[−0.00, 0.00]</td>
<td></td>
</tr>
<tr>
<td>SOI Attitude Subscale</td>
<td>0.03</td>
<td>[−0.16, 0.23]</td>
<td>0.03</td>
<td>[−0.00, 0.06]</td>
<td></td>
</tr>
<tr>
<td>SOI Desire Subscale</td>
<td>0.23**</td>
<td>[0.09, 0.36]</td>
<td>0.03</td>
<td>[−0.00, 0.06]</td>
<td></td>
</tr>
<tr>
<td>Third Party Attitudes</td>
<td>−0.38**</td>
<td>[−0.62, −0.15]</td>
<td>0.03</td>
<td>[−0.00, 0.06]</td>
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<tr>
<td>Participant Sex: Female</td>
<td>−0.85**</td>
<td>[−1.22, −0.49]</td>
<td>0.05</td>
<td>[0.01, 0.10]</td>
<td></td>
</tr>
<tr>
<td>SOI Attitude Subscale X Third Party Attitudes</td>
<td>−0.22*</td>
<td>[−0.39, −0.04]</td>
<td>0.01</td>
<td>[−0.01, 0.04]</td>
<td></td>
</tr>
<tr>
<td>SOI Desire X Third Party Attitudes</td>
<td>−0.15*</td>
<td>[−0.28, −0.02]</td>
<td>0.01</td>
<td>[−0.01, 0.04]</td>
<td></td>
</tr>
<tr>
<td>SOI Attitude Subscale X Participant Sex: Female</td>
<td>−0.24</td>
<td>[−0.60, 0.11]</td>
<td>0.00</td>
<td>[−0.01, 0.02]</td>
<td></td>
</tr>
<tr>
<td>SOI Desire Subscale X Participant Sex: Female</td>
<td>−0.40**</td>
<td>[−0.67, −0.14]</td>
<td>0.02</td>
<td>[−0.01, 0.05]</td>
<td></td>
</tr>
<tr>
<td>Third Party Attitudes X Participant Sex: Female</td>
<td>0.35</td>
<td>[−0.19, 0.89]</td>
<td>0.00</td>
<td>[−0.01, 0.02]</td>
<td></td>
</tr>
<tr>
<td>SOI Attitude Subscale X Third Party Attitudes X Participant Sex: Female</td>
<td>0.36</td>
<td>[−0.02, 0.75]</td>
<td>0.01</td>
<td>[−0.01, 0.03]</td>
<td></td>
</tr>
<tr>
<td>SOI Desire Subset X Third Party Attitudes X Participant Sex: Female</td>
<td>0.29</td>
<td>[−0.03, 0.62]</td>
<td>0.01</td>
<td>[−0.01, 0.02]</td>
<td></td>
</tr>
</tbody>
</table>

Note. “Third Party Attitudes” indicates the participants’ composite score on their attitudes toward third party casual sex. A significant b-weight indicates the semi-partial correlation is also significant. β represents standardized regression weights. sr² represents the semi-partial correlation squared. LL and UL indicate the lower and upper limits of a confidence interval, respectively. * Indicates p < 0.05. ** Indicates p < 0.01. Bolded coefficients represent statistically significant following Bonferroni adjustment for three model comparisons.

R² = 0.294**

95% CI [0.18, 0.35]
data accounted for five percent or less, therefore we deleted missing data-cases pairwise in the following analyses.

**Prediction 1**

Men, on average, endorsed more rape myths ($M = 45.32, SE = 1.16$) than women ($M = 35.17, SE = 0.99$), $t(295.3) = 6.64, p < 0.001$, Cohen’s $d = 0.76$ (95% CI[7.06, 13.25]; df adjusted for violation of equal variance assumption; Table S3). This effect held even after controlling for age in an ANCOVA, $F(1, 295) = 41.12, p < 0.001$, $\eta^2_p = 0.12$.

**Predictions 2 and 3**

We ran Pearson correlations between participants’ SOI scores, Political Orientation, and self-reported sex. Men’s SOI was not statistically linearly related to their RMA, $r(161) = 0.01, p = 0.86$. Nor was this relationship predicted by a quadratic polynomial regression, $F(2, 159) = 0.01, p = 0.99$, or a cubic polynomial regression, $F(3, 158) = 0.47, p = 0.71$. The relationship between women’s SOI and RMA approached significance. However, this relationship was weak, $r(131) = -0.16, p = 0.065$ (Table 2).

**Direct test of the RSIMM predicting men and women’s RMA.** To test if the RSIMM predicted participants’ RMA over and above political orientation and religiosity, we ran two multiple regression models. There was no evidence of multicollinearity between the predictors of our model (Table 2).

**Main RSIMM model.** First, we ran a multiple regression model predicting participants’ RMA from their sex, SOIr subscales, attitudes toward third party casual sex, and their interactions. Following backwards stepwise deletion, the final model predicting RMA from participant sex, SOIr desire, SOIr behavior, attitudes toward third party casual sex, and their interactions statistically fit the data, $F(11, 283) = 10.70, p < 0.001$, $R^2 = 0.294$, AIC = 760.45 (Table 3). Three main models were compared; therefore, we Bonferroni-adjusted the alpha to 0.0167 to adjust for...
multiple comparisons. See Table S4 for full model fit prior to stepwise deletion.

The multiple regression statistically predicted participants’ RMA with main effects of the SOIr desire subscale, attitudes toward third party casual sex, and participant sex ($p < 0.01$). For every one SD increase of a participants’ SOIr desire, participants’ rape myth acceptance increased 0.23 SDs, $t(283) = 3.35, p < 0.001$, above and beyond the effects of other included variables and interactions. For every one SD increase in participants’ attitudes toward third party casual sex, participants’ RMA decreased 0.38 SDs, $t(283) = -3.27, p = 0.0012$, above and beyond other variables and interactions. Participants identifying as “female” had RMA scores 0.85 SDs lower than participants identifying as “male,” $t(283) = -4.60, p < 0.001$.

The multiple regression indicated three statistically significant second-level interactions: (1) SOIr attitude and attitudes toward third party casual sex, (2) SOIr desire and attitudes toward third party casual sex, and (3) SOIr desire and participant sex ($p = 0.002 - 0.02$). Using the “pequod” R package (Mirisola & Seta, 2016), we estimated the simple slopes of these interactions.

Simple slopes estimates indicated the slopes of participants who scored one SD higher than the mean on the SOIr attitude subscale were statistically significant, $t(291) = -4.11, p < 0.001$. For participants who scored one SD higher than the mean on SOIr attitude, one SD increase in attitudes towards others’ casual sex was associated with a 0.73 SD decrease in rape myth acceptance. Additionally, simple slopes estimates indicated that the slopes of participants who scored one SD below the mean on the SOIr attitude subscale were statistically significant, $t(291) = -4.74, p < 0.001$. Of the participants scoring one SD below the mean on the SOI attitude subscale, their rape myth acceptance decreased by 0.36 SDs per SD increase in attitudes toward others’ casual sex (Fig. 1).

We explored simple slopes analyses for the interaction between SOIr desire and attitudes toward third-party casual sex. Note that this interaction does not remain statistically significant following Bonferroni adjustments for three model comparisons. Therefore, less weight should be given to this interaction.

![Interaction Between SOI Desire and Attitudes Toward Third Party Casual Sex](image)

**Fig. 2.** Figure shows participants’ rape myth acceptance as a function of the interaction between their attitudes toward third party casual sex and their scores on the desire subscale of the SOIr. “SOI Desire” indicates high (1 SD) and low (−1 SD) of the mean centered SOIr Desire subscale. Simple slopes estimates indicated that the slopes of participants who had a high desire for casual sex (i.e., high SOI Desire) was statistically different than zero, $t(291) = -5.70, p < 0.001$. Participants who had a more unrestricted desire for casual sex and more accepting attitudes toward others’ casual sex accepted statistically less rape myths. Simple slopes estimates indicated that the slopes of participants who had a low desire for casual sex (i.e., low SOI Desire) was not statistically different than zero, $p = 0.09$. N = 308
Simple slopes estimates indicated that the interaction between SOIr desire and attitudes toward third party casual sex produced statistically different slopes. The slope of participants scoring one SD above the mean on the SOIr desire subscale indicated that per one SD increase in openness to third-party casual sex, their rape myth acceptance decreased 0.41 SDs, $t(291) = -5.70, p < 0.001$. Participants scoring one SD below the mean on SOIr desire subscale’s slope was not statistically different from zero, however, $t(291) = -1.72, p = 0.09$ (Fig. 2).

Simple slopes estimates indicated that the interaction between SOIr desire and participant sex were statistically significant for men, $t(291) = 4.63, p < 0.001$, but not women, $t(291) = -0.29, p = 0.77$. As men’s scores on the SOIr desire subscale increased one SD, their rape myth acceptance increased 0.32 SDs. Women’s rape myth acceptance did not statistically change as their SOIr desire increased (Fig. 3).

Finally, the interaction between the SOIr attitude subscale, attitudes toward third party casual sex, and participant sex was not statistically significant, $p = 0.10$. We explored both interactions in the supplemental materials as they approached statistical significance but were not highly powered enough to make any strong inferences (Figures S2-S5).

**Covariate model.** To test the robustness of the RSIMM, we added political orientation and religiosity to the multiple regression model. The RSIMM was statistically robust against the addition of these covariates (Table 4). The model statistically fit the data, $R^2 = 0.41, F(13, 281) = 16.53, p < 0.001$. Apart from the interaction between the SOIr desire subscale and participant sex, all effects of the original model held when controlling for political orientation and religiosity, $ps < 0.01$.

When Bonferroni adjusting the alpha for four model comparisons and controlling for political orientation, the interaction between desire and attitudes towards third-party casual sex become statistically significant again. Religion as a covariate was not statistically significant following Bonferroni adjusted $p$-values. All other coefficients remained statistically significant.

![Interaction Between Participant Sex and SOI Desire Predicting Rape Myth Acceptance](image)

Fig. 3. Figure shows participants’ rape myth acceptance as a function of the interaction between their identified sex and their scores on the desire subscale of the SOIr. Simple slopes estimates indicated that the slopes of male participants were statistically different than zero, $t(291) = 4.63, p < 0.001$. Male participants who had a more unrestricted desire for casual sex accepted statistically more rape myths. Simple slopes estimates indicated that the slopes of female participants were not statistically different than zero, $p = 0.77$. $N = 308$
We corroborated previous data that men display statistically more RMA than women, Cohen’s $d = 0.76$ (e.g., Suarez & Gadalla, 2010; Borgogna, Lathan, & McDermott, 2022; Patterson, Fiene, & Cole, 2022). When placed in ambiguous interactions, men are biased toward perceiving sexual interest from a woman—even if that perception is false (Haselton & Buss, 2000). The content of rape myths may provide a perpetrator reasonable doubt in ambiguous sexual interactions, thus providing reasonable doubt for the perpetrator committing a punishable crime and benefiting men more than women. These data provide preliminary evidence that—for men in our sample—RMA: (1) may aid the creation of environments where distinctions between consensual and coercive sex is minimal and (2) may add social costs to those oriented toward short-term sexual strategies.

Our prediction that there would be no strong linear relationship between men’s SOI and RMA was supported.

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### Table 4. RSIMM model predicting RMA controlling for political orientation and religiosity

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$\beta$</th>
<th>95% CI [LL, UL]</th>
<th>$sr^2$</th>
<th>95% CI [LL, UL]</th>
<th>Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.29**</td>
<td>[0.13, 0.46]</td>
<td>0.14</td>
<td>[0.08, 0.20]</td>
<td></td>
</tr>
<tr>
<td>Political Orientation</td>
<td>0.47**</td>
<td>[0.36, 0.58]</td>
<td>0.01</td>
<td>[0.01, 0.03]</td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>–0.13*</td>
<td>[–0.25, –0.01]</td>
<td>0.01</td>
<td>[–0.01, 0.02]</td>
<td></td>
</tr>
<tr>
<td>SOI Attitude Subscale</td>
<td>0.16</td>
<td>[–0.01, 0.34]</td>
<td>0.02</td>
<td>[–0.01, 0.04]</td>
<td></td>
</tr>
<tr>
<td>SOI Desire Subscale</td>
<td>0.18**</td>
<td>[0.06, 0.30]</td>
<td>0.02</td>
<td>[–0.01, 0.04]</td>
<td></td>
</tr>
<tr>
<td>Third Party Attitudes</td>
<td>–0.32**</td>
<td>[–0.55, –0.10]</td>
<td>0.03</td>
<td>[0.00, 0.06]</td>
<td></td>
</tr>
<tr>
<td>Participant Sex: Female</td>
<td>–0.65**</td>
<td>[–0.98, –0.32]</td>
<td>0.01</td>
<td>[–0.01, 0.04]</td>
<td></td>
</tr>
<tr>
<td>SOI Attitude Subscale X Third Party Attitudes</td>
<td>–0.22**</td>
<td>[–0.38, –0.06]</td>
<td>0.02</td>
<td>[–0.01, 0.04]</td>
<td></td>
</tr>
<tr>
<td>SOI Desire Subscale X Third Party Attitudes</td>
<td>–0.16**</td>
<td>[–0.28, –0.05]</td>
<td>0.01</td>
<td>[–0.01, 0.02]</td>
<td></td>
</tr>
<tr>
<td>Third Party Attitudes X Participant Sex: Female</td>
<td>–0.25</td>
<td>[–0.57, 0.06]</td>
<td>0.01</td>
<td>[–0.01, 0.02]</td>
<td></td>
</tr>
<tr>
<td>SOI Desire Subscale X Participant Sex: Female</td>
<td>–0.23</td>
<td>[–0.47, 0.00]</td>
<td>0.01</td>
<td>[–0.01, 0.02]</td>
<td></td>
</tr>
<tr>
<td>SOI Attitude Subscale X Third Party Attitudes X Participant Sex: Female</td>
<td>0.36</td>
<td>[–0.13, 0.84]</td>
<td>0.00</td>
<td>[–0.01, 0.02]</td>
<td></td>
</tr>
<tr>
<td>SOI Desire Subscale X Third Party Attitudes X Participant Sex: Female</td>
<td>0.34</td>
<td>[–0.01, 0.69]</td>
<td>0.01</td>
<td>[–0.01, 0.02]</td>
<td></td>
</tr>
</tbody>
</table>

$R^2 = 0.433^{**}$

95% CI [0.32, 0.48]

AIC: 699.47

---

**Note.** “Third Party Attitudes” indicates the participants’ composite score on their attitudes toward third party casual sex. A significant $b$-weight indicates the semi-partial correlation is also significant. $\beta$ represents standardized regression weights. $sr^2$ represents the semi-partial correlation squared. LL and UL indicate the lower and upper limits of a confidence interval, respectively. ‘*’ indicates $p < 0.05$. ‘**’ indicates $p < 0.01$. Bolded coefficients represent statistically significant coefficients following Bonferroni adjustments for four model comparisons.

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**DISCUSSION**

The present research tested the RSIMM applied to RMA. The RSIMM statistically predicted both men’s and women’s RMA in our sample, above and beyond political orientation and religiosity. Taken together, reported attitudes third-party casual sex, SOI r attitudes and desires, religiosity, and political orientation statistically accounted for 43% of variation in RMA in our sample. For women, the RSIMM was not conclusive. We only found a statistical effect of on women’s RMA in post-hoc exploratory simple slopes analyses. We cannot confidently state that women’s RMA is explicable partially due to their sexual strategy or condemnation of others’ casual sex. While this nonsignificant effect may be limited to our current convenience sample, it is also possible that the benefits of women’s RMA may not outweigh the costs of associating rape with consensual sex for some women.
That is, in our sample, male participants who were more condemning of others’ casual sex accepted more rape myths. We did not expect SOI to strongly relate to men’s RMA since RMA blurs the definition of rape. The resulting ambiguity defining rape may aid the creation of environments suitable for maintaining both men’s short- and long-term sexual strategies (Buss & Schmitt, 1993). For men more psychologically oriented toward short-term sexual strategies (i.e., unrestricted SOI), blurring the line between consensual sex and coercive sex may create an environment where casual sex is easier to obtain. For men psychologically oriented toward long-term sexual strategies (i.e., restricted SOIs), blurring the line between coercive and consensual sex—and perceiving such “casual” sexual behavior as a threat to the ability to maintain long-term relationships followed by condemnation of “casual” sexual behavior—may aid the maintenance of long-term relationships. An important mediator documented in our study is individuals’ attitudes toward others’ casual sex. This seems to be a proxy of casual sex’s perceived threat to one’s ability to maintain long-term relationship within our sample. Future research should test this assumption by asking participants about the perceived threat that casual sex in the environment to maintaining long-term relationships.

Further research understanding the relationship between women’s sexual strategies and RMA is needed. In a convenience sample, we found long-term oriented women were more condemning of casual sex and accepted more rape myths, but the RSIMM did not predict women’s RMA. Moral judgements toward rape victims may be a smaller effect than assumed for women due to the costs associated with rape. Similar data support this speculation. For example, sex differences in abortion support do not typically emerge (e.g., Finlay, 1981; Sears & Funk, 1991). However, Pinsof (2018) demonstrated that women support abortion more than men after controlling for mating strategies. Pinsof’s (2018) data suggest that supportive attitudes toward abortion is more self-interested than previously expected.

Future research should also address the IRMA (McMahon & Farmer, 2011; Payne et al., 1999) which contains items that are arguably demonstrable statements. For example, “Guys don’t usually intend to force sex on a girl, but sometimes they get too sexually carried away.” Endorsing these statements contributes to a higher total IRMA score indicating greater RMA. However, individuals who are more knowledgeable about sexual assault may report higher agreement with these items – falsely conflating RMA with knowledge of rape (Hahnel-Peeters & Goetz, 2022).

Because online data collection is vulnerable to self-selection bias, many participants identified as liberal. Future research should collect data encompassing a balanced sample – specifically a more conservative population. Further, our convenience sample from social media is not sufficiently random to allow for generalization past our sample. A representative sample would provide more control for demographics potentially affecting moral judgements while maintaining enough variance to accurately capture sexual strategies’ effect on RMA.

Initial findings provided greater understanding of moral judgments, sexual strategies, and RMA. The RSIMM is an a priori framework to understand victim-blaming and RMA. We provided more evidence for self-interest in morality. By using the RSIMM, psychologists may create interventions to reduce RMA and victim blame — ultimately helping victims of rape and sexual assault.

Declaration of interests: The authors declare the following financial interests/personal relationships which may be considered as potential competing interests. Rebecka Hahnel-Peeters reports financial support provided by Psi Chi International Honor Society in Psychology in the amount of $1,495 (#50-1737-20).

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SUPPLEMENTARY MATERIAL

Supplementary data to this article can be found online at https://doi.org/10.1556/2055.2023.00036.

REFERENCES


Bohner, G., Pina, A., Tendayi Viki, G., & Siebler, F. (2010). Using social norms to reduce men’s rape proclivity: Perceived rape myth acceptance of out-groups may be more influential than that of in-groups. Psychology, Crime & Law, 16(8), 671–693.


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