

Women's Rape Fantasies: An Empirical Evaluation of the Major Explanations

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Abstract This study evaluated explanations of rape fantasy in a sample of female undergraduates ($N = 355$) using a sexual fantasy checklist which included eight types of rape fantasy, participants' detailed descriptions of a rape fantasy they have had, a rape fantasy scenario audio presentation, and measures of personality. Three explanations of rape fantasy were tested: openness to sexual experience, sexual desirability, and sexual blame avoidance. Women who were higher in erotophilia and self-esteem and who had more frequent consensual sexual fantasies and more frequent desirability fantasies, particularly of performing as a stripper, had more frequent rape fantasies. Women who were higher in erotophilia, openness to fantasy, desirability fantasies, and self-esteem reported greater sexual arousal to rape fantasies. Sexual blame avoidance theory was not supported; sexual desirability theory was moderately supported; openness to sexual experience theory received the strongest support.

Keywords Rape · Rape fantasy · Sexual fantasy · Personality · Forced sex · Submission

Introduction

Current research suggests that between 31 and 62% of women have rape fantasies (Bivona & Critelli, 2009; Critelli & Bivona, 2008). Although a small minority of rape fantasies are entirely aversive and without erotic effect, it has been estimated that over

90% are either erotic or both erotic and aversive (Bivona & Critelli, 2009). Rape fantasies present a psychological enigma, for it is unclear why so many women would have sexual fantasies about an event that, in real life, would be abhorrent and traumatic. In addition, since nearly all women engage in consensual sexual fantasies (Leitenberg & Henning, 1995), why fantasize about rape when one could just as easily imagine sex that is non-coercive?

Intrigued by this puzzle, researchers have proposed a number of explanations for why many women have rape fantasies and for why these fantasies often generate erotic pleasure. The three explanations evaluated in this investigation are sexual blame avoidance, openness to sexual experience, and sexual desirability. Each alternative explanation presents one central idea rather than a comprehensive theory, and the present study is the first to systematically test each of the three major theories against each other. Note that we use the terms explanation and theory interchangeably, without implying that any of the three theories is well-established or comprehensive. On the other hand, these theories do appear to be the best explanations currently available. A viable explanation should address the defining aspects of rape fantasy: the use of force to obtain sex when the fantasy character exhibits resistance and non-consent. In particular, what roles do the use of force and non-consent play in the fantasy and how might they facilitate sexual arousal?

Theories of Rape Fantasy

Sexual Blame Avoidance

A frequently cited explanation for why many women have rape fantasies is that these fantasies allow women to avoid blame or guilt that may arise from directly expressing their sexual desires (Critelli & Bivona, 2008; Hawley & Hensley, 2009; Knafo & Jaffe, 1984; Moreault & Follingstad, 1978; Shulman & Horne, 2006). According to this explanation, women have been

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socialized to accept the importance of not being perceived as promiscuous or overly sexual. For example, powerful labels, such as “tramp” and “slut,” have been used to control and restrict women’s sexuality. This theory suggests that, for some women, a fantasy of consensual sex may cause feelings of self-blame, guilt, and anxiety. By having the fantasy take the form of rape, the woman’s self character in the fantasy is being forced to do something she doesn’t want to do. Thus, she cannot be blamed for what happens. In contrast to a consensual sexual fantasy, the rape theme enhances sexual gratification by allowing the fantasizer to avoid blame and guilt.

Empirical support for blame avoidance has been mixed, with the majority of studies not in support. Several studies found that rape fantasies were more likely in women with high sex guilt (Moreault & Follingstad, 1978) and in women reared in a sexually repressive family environment (Hariton & Singer, 1974). Other research, however, has either failed to support the relationship between rape fantasies and sex guilt (Hawley & Hensley, 2009; Pelletier & Herold, 1988) or has found an inverse relationship (Shulman & Horne, 2006; Strassberg & Lockerd, 1998). Several studies have found that women who have rape fantasies showed positive rather than negative attitudes toward sexual stimuli (Gold, Balzano, & Stamey, 1991; Shulman & Horne, 2006; Strassberg & Lockerd, 1998).

Openness to Sexual Experience

In direct contrast to sexual blame avoidance is the openness to sexual experience theory. Instead of being driven by repressed sexuality, this theory states that rape fantasies may derive from a woman’s generally open, accepting, and guilt-free attitude toward sex (Gold et al., 1991; Pelletier & Herold, 1988; Strassberg & Lockerd, 1998). For example, Pelletier and Herold found that women who had experienced a greater variety of sex acts and those who had more sexual partners experienced a greater variety of sexual fantasies, fantasized more often about sex, and were more likely than other women to have rape fantasies.

Sexual Desirability

A third explanation for women’s use of rape fantasy considers its implications for their sense of sexual desirability and attractiveness. The central idea here is that the rape fantasy portrays the woman as so attractive, seductive, and irresistible that, in her presence, men cannot control themselves (Hariton, 1973; Heiman, LoPiccolo, & LoPiccolo, 1976; Kanin, 1982; Knafo & Jaffe, 1984). In this way, the rape becomes a testament to her sexual power (Hawley & Hensley, 2009), a source of sexual arousal, and a means of supporting her self-esteem (Kanin, 1982). Although feeling desired would also be a typical theme in consensual sexual fantasies, researchers have suggested that the structure of the rape fantasy, which involves having the male violate social prohibitions and risk legal consequences to possess the

female character, focuses attention on her high desirability. This theory has not yet been directly tested.

It should be noted that the theme of female desirability leading to rape is common in women’s romance novels (Hazen, 1983; Thurston, 1987). These novels, written almost exclusively by women for a female audience, account for over one-third of mass paperback sales in the United States (Salmon & Symons, 2003). One analysis found that in romance fiction situated in previous historical periods, over half included a scene in which the female protagonist was raped (Thurston, 1987). In these novels, the male’s desire for the heroine triggers his sexual motivation and his masculine aggressiveness disinhibits the use of limited force. The heroine’s refusal provides dramatic tension, creating a context for him to display his power and his desire.

Relationships Among the Three Theories

It seems clear that the blame avoidance and openness theories are in direct conflict with each other, although it is possible that each may be viable for a different subset of women. For example, blame avoidance may help to explain the rape fantasies of women who are highly sexually repressed, while openness theory may apply to women with more positive sexual attitudes. Desirability theory can be compatible with either blame avoidance or openness theories.

The frequency of consensual sexual fantasies is relevant for each of the three theories. According to blame avoidance theory, the reason sexually repressed women have rape fantasies is that these fantasies allow them to feel sexual excitement without the feelings of guilt and blame that they would have from consensual sexual fantasies. For this theory, to the extent that sexual repression motivates the occurrence of rape fantasies, the higher the frequency of rape fantasies the lower should be the frequency of consensual sexual fantasies, as these have been found to be negatively correlated with sexual repression (Fisher, Byrne, White, & Kelly, 1988). Openness theory suggests that women with an open and accepting attitude toward sex would have both consensual sexual fantasies and rape fantasies more often than would other women, which suggests that the correlation between the frequency of rape and consensual sexual fantasies should be positive. Desirability theory argues that women who especially want to feel that they are sexually desired would have both rape fantasies and consensual sexual fantasies more often than would other women, as both types of fantasy typically depict male desire for the fantasy self character. Thus, desirability theory suggests that the frequency of rape and consensual sexual fantasies should be positively correlated.

Current Study

Independent and Dependent Measures

The independent or predictor variables for blame avoidance theory included erotophilia, a measure of sexual self-acceptance, and

frequency of consensual sexual fantasies. Predictors for openness theory included erotophilia, frequency of consensual sexual fantasies, openness to fantasy, and sensation seeking. Predictors for desirability theory included self-esteem and the frequencies of four non-coercive sexual fantasies with strong desirability themes. Note that erotophilia and the frequency of consensual sexual fantasies are used to test both openness and blame avoidance theories, but whether the predicted correlations are positive or negative is reversed for these two theories.

The central dependent measures for hypothesis testing included women's frequency of having each of eight rape fantasies, whether or not women have experienced any of the eight rape fantasies, women's self-report of typical sexual arousal to a rape fantasy they have had, and self-report of sexual arousal to an auditory presentation of a rape fantasy.

Tests of Sexual Blame Avoidance Theory

Hypothesis 1 Erotophilia will be negatively related to frequency of rape fantasies.

Hypothesis 2 Frequency of consensual sexual fantasies will be negatively related to frequency of rape fantasies.

No predictions were made regarding the relationship between erotophilia and levels of sexual arousal to one's own rape fantasy or to a rape fantasy scenario presentation. Blame avoidance theory explains why some (erotophobic) women have rape fantasies and why they might become more aroused to a rape fantasy than to a consensual fantasy. This theory, however, does not necessarily claim that erotophobic women would become more aroused to a rape fantasy than would erotophilic women, since erotophilic women do not generally associate blame, guilt, and anxiety with sexual stimuli.

Tests of Openness to Sexual Experience Theory

Hypothesis 3 The openness predictors, erotophilia, frequency of consensual sexual fantasies, openness to fantasy, and sensation seeking, will show positive relationships with frequency of rape fantasies.

Hypothesis 4 Openness predictors will show positive relationships with sexual arousal to own rape fantasy and to a presented rape fantasy scenario.

Tests of Sexual Desirability Theory

Hypothesis 5 Women who have more frequent non-rape sexual fantasies with an explicit desirability theme (indicating a strong motive to feel desired by men) will have more frequent rape fantasies.

Hypothesis 6 Women who have more frequent non-rape sexual fantasies with an explicit desirability theme will report greater sexual arousal to own rape fantasy and to a presented rape fantasy scenario.

This theory also suggests that rape fantasies may play a role in raising or maintaining self esteem, so self-esteem will also be considered, although it is not clear from desirability theory in its present form whether rape fantasies would occur more frequently for those with high or with low self-esteem.

Although openness theory places no special emphasis on fantasies depicting sexual desirability, it would anticipate a general correlation between sexual fantasies of all types based on one's level of openness to sexuality. To separate the openness and desirability theories more clearly, we will test whether the relationship between desirability variables and rape fantasies is maintained when the predictors from openness theory are held constant.

Method

Participants

Participants were 355 women over the age of 18 years from two state universities in the southwestern U.S. The study was described as research on sexuality, including personality, sexual fantasy, and sexual aggression. Participants received research credit for their participation. Ages ranged from 18 to 33 ($M = 20.04$, $SD = 2.41$). The sample was 59% Caucasian/White, 16% African American/Black, 13% Hispanic/Latina, 6% Biracial, 5% Asian American or Pacific Islander, and 1% American Indian or Alaskan Native. With regard to marital status, 89% were single, 5% were married, 3% were divorced, and 5% listed their marital status as other. For sexual orientation, 91% described themselves as heterosexual, 6% as bisexual, 2% as lesbian, and 1% as other.

Measures

Sexual Fantasy Checklist

A checklist was adapted for this study from one originally developed by Hariton and Singer (1974). The original items were based on interviews with women, clinical case studies, and fictional literature. This measure has continued to be adapted and used in sex research (Knafo & Jaffe, 1984; Moreault & Follingstad, 1978; Strassberg & Lockerd, 1998).

Frequency of Rape Fantasies Our working definition of rape fantasy followed common legal definitions of rape. These are waking fantasies that depict the use of force or incapacitation by a male or a female against the will of the self character in the fantasy in

order to enact vaginal, anal or oral contact or penetration. Eight items were used to assess rape fantasies, with each rated on a 7-point frequency scale (0 = never to 6 = several times/day). These items are listed in the Appendix. The “forced sex by a man” item and minor variations of it have been used in a number of studies of rape fantasy. The other items were added to provide a more comprehensive assessment of rape fantasies.

Frequency of Desirability Fantasies The checklist was also used to evaluate non-coercive sexual fantasies with a clear desirability theme. Four items were used: “Feeling my partner’s intense desire for me,” “Others being highly physically attracted to me,” “Being an irresistible, sexy woman,” and “Performing as a stripper or topless dancer.”

Frequency of Consensual Sexual Fantasies This was measured by one item from the checklist: “Engaging in sexual activities that are consensual.”

Own Sexual Fantasy

Participants provided a detailed description of a sexual fantasy that they have had that involved use of sexual aggression or sexual coercion against them. If a participant could not recall a fantasy that met this criterion, they were instructed to describe a fantasy that they have had that comes closest to meeting this criterion. Participants answered a series of questions for the beginning, middle, and end of the fantasy. As fantasies are essentially stories, traditional stages in story development were used to help participants remember details in their fantasy. The questions asked for a description of the characters in the fantasy, the nature of the interaction and sexual acts that took place, and the thoughts, feelings, and motives of the characters.

To be categorized as a rape fantasy, the following criteria were required: the use of force or incapacitation against the will of the self character in the fantasy at the time of vaginal, anal or oral contact or penetration, regardless of any sex acts that may have taken place consensually. As with Kanin (1982), fantasies were also coded as rape fantasies if there was extreme non-consent at the time of attempted penetration, as indicated by a score of 4 on a scale of non-consent (0 = total consent; 4 = extremely strong non-consent).

Self-Reported Sexual Arousal to Own Rape Fantasy Participants provided self-ratings for the beginning, middle, and end of the fantasy for typical level of sexual arousal from having this fantasy (0 = no sexual arousal, 4 = extreme sexual arousal). The mean arousal level of the three was used to measure sexual arousal to the fantasy. Participants also provided a one-time rating of the level of assailant attractiveness (0 = not at all attractive, 4 = extremely attractive).

Rape Fantasy Scenario Presentation

A rape fantasy scenario in the form of a dramatic reading was presented to the participants over headphones. Participants were instructed to close their eyes while listening to the scenario and to try to imagine themselves as the woman in the scenario. The scenario was constructed for this study based on story lines often found in women’s romance literature, so it represented an erotic rape fantasy rather than a literal portrayal of actual rape. It included a male acquaintance who was strongly attracted to the female character. He expressed a desire for sex with her, but she stated a clear disinterest in any sexual interaction. He attempted without success to convince her to consent. When she would not, he overpowered her and raped her. The female character was resistant throughout the interaction and at no time did she give consent; however, as the male was attractive and he provided sexual stimulation, she did experience sexual pleasure from the forced sex. The scenario placed more emphasis on the use of force against her will than on the sexual pleasure.

Self-Reported Sexual Arousal to the Presented Scenario A modified form of the Ratings of Sexual Arousal (Mosher, Barton-Henry, & Green, 1988) was used to assess the participant’s reactions to the rape fantasy scenario. These items were: “How much did you enjoy the experience?” (0 = no enjoyment, 4 = extreme enjoyment), “How sexually aroused did you become during the experience?” (0 = no sexual arousal, 4 = extreme sexual arousal), “How much sensation did you experience in your genitals during the experience?” (0 = no genital sensation at all, 4 = extreme genital sensation), and “How much sexual warmth did you experience in your genitals, breasts, and body?” (0 = no warmth at all, 4 = extreme sexual warmth). These items were highly correlated with each other ($r = .64-.79$) and they were combined to form a measure of sexual arousal (Cronbach’s $\alpha = .92$).

Rosenberg Self-Esteem Scale (Rosenberg, 1989)

This scale measures an individual’s assessment of her own worth as a person, including positive or negative feelings toward the self. The scale is composed of 10 items rated on a scale of 1–4 (1 = strongly agree, 4 = strongly disagree). Test–retest reliabilities have been between .82 and .88, with Cronbach’s alpha ranging from .77 and .88. In the current study, alpha was .89. This measure has been found to be positively correlated with other measures of self-esteem (Robins, Hendin & Trzesniewski, 2001).

Sexual Opinion Survey (Fisher et al., 1988)

This scale measures erotophilia–erotophobia, with items reflecting an anticipation of positive or negative feelings from engaging

in various sexual behaviors. The scale is composed of 21 items rated on a scale of 1 (I strongly agree) to 7 (I strongly disagree), with higher total scores indicating more erotophilic or positive sexual attitudes. This measure has shown a 2 month test–retest reliability of .80. Cronbach’s alpha has ranged from .82 to .90 and in the current study alpha was .88. With regard to construct validity, erotophilia has been correlated with engaging in a wider range of sexual behaviors and having more frequent sexual fantasies.

NEO-PI-R: Fantasy Subscale (Costa & McCrae, 1992)

The NEO-PI-R is a personality inventory based on a five factor model of personality, with each factor composed of several subscales. The Openness to Experience factor includes the fantasy subscale, which is made up of eight items rated on a 5-point scale from strongly disagree to strongly agree. Individuals with high scores on this subscale are imaginative, have an active fantasy life, and construct elaborate fantasies. The fantasy subscale has been found to have a Cronbach’s alpha of .76 and test–retest reliability of .86. In the current study, alpha was .79.

Sensation Seeking Scale—Form V (Zuckerman, 1994)

This scale measures the propensity to seek out novel, intense, and varied experiences. It is composed of 40 forced-choice items divided into four subscales: thrill and adventure seeking, disinhibition, experience seeking, and boredom susceptibility. Internal consistency reliability for the total score ranges from .83 to .86 (.87 in the current study). This scale has been found to predict risky sexual behaviors and alcohol abuse (Deditius-Island & Caruso, 2002).

Rape

One item was used to assess whether or not participants had been the victim of rape: “Have you ever been raped?”

Procedure

Participants completed all measures online in a lab with a researcher present. They were informed that they would be exposed to questionnaires and materials related to sexual fantasy, personality, and sexual aggression, and they were told they could choose not to participate or to withdraw from the study at any time without penalty. All procedures were reviewed and accepted by the university IRB. Prior to the scenario, each participant was informed that she would be listening to an audio presentation of sexually explicit material that may involve sexual aggression. The sexual aggression in the scenario was designed to simulate that found in popular romance fiction, so it did not contain graphic violence. No participants were observed or reported to become emotionally disturbed by the scenario. After completing all measures,

participants were debriefed. No participant indicated any level of distress.

Data Analysis

The data analysis consisted of descriptive statistics, a correlation matrix of major variables, and regression analyses using variables from the three explanations of rape fantasy to predict frequency of the “forced sex by a man” rape fantasy item, whether or not participants had experienced any of the eight rape fantasy items, typical sexual arousal to one’s own reported rape fantasy, and sexual arousal to the presented rape scenario. In addition, a structural equation model (SEM) was run to examine the dimensionality of the rape fantasy items and predict the general propensity to have rape fantasies. To reduce the number of analyses performed and allow a more direct comparison across the theories of rape fantasy, all theoretical predictors for the three theories were entered into each analysis.

Results

Percentages for those who had experienced each of the eight rape fantasy items were as follows: forced sex by a man: 52%; raped by a man: 32%; forced oral sex by a man: 28%; forced anal sex: 16%; incapacitated: 24%; forced sex by a woman: 17%; raped by a woman: 9%; and forced oral sex by a woman: 9%. Overall, 62% of participants reported having had at least one of these fantasies. The rape fantasy item endorsed by the largest percentage of women was forced sex by a man. Of the women who reported having this fantasy, 33% had it less than once a year; 26% had it a few times a year; 20% had it about once a month; 11% had it about once a week; and 9% had it at least four times a week. For greater detail on the distribution of item frequencies, see Bivona and Critelli (2009). Polychoric correlations among the rape fantasies are shown in Table 1. All of these variables were positively correlated with each other (all correlations reported in text are statistically significant at the .01 level). Descriptive statistics for the major variables are shown in Table 2.

Correlations Between Theoretical Predictors and Dependent Measures

Table 3 shows the Spearman correlations between the theoretical predictors and the eight rape fantasy items plus sexual arousal to one’s own rape fantasy and sexual arousal to the auditory presentation of a rape scenario. All correlations were positive. Erotophilia showed consistent positive correlations with the various rape fantasy items and with the two arousal measures. The highest correlations for erotophilia were with forced sex by a woman ($r = .38$) and sexual arousal to own rape fantasy ($r = .38$). Openness to fantasy showed a relatively strong correlation with sexual arousal to

Table 1 Polychoric correlations of individual rape fantasy items ($N = 355$)

	Forced sex by a man	Forced sex by a woman	Incapacitated	Forced oral sex by a man	Forced oral sex by a woman	Forced anal sex	Raped by a man
Forced sex by a woman	.51						
Incapacitated	.64	.48					
Forced oral sex by a man	.71	.51	.59				
Forced oral sex by a woman	.38	.84	.25	.55			
Forced anal sex	.51	.47	.38	.66	.42		
Raped by a man	.78	.34	.66	.59	.34	.48	
Raped by a woman	.49	.85	.59	.41	.79	.42	.63

$p < .01$ for all correlations

Table 2 Descriptive statistics for theoretically derived predictors and sexual arousal

	<i>M</i>	<i>SD</i>
Erotophilia ^a	76.50	21.69
Openness to fantasy ^b	22.05	5.01
Sensation seeking ^c	19.44	6.34
Frequency of consensual sexual fantasies ^d	3.94	1.39
Self-esteem ^e	18.04	5.06
Freq. of feeling partner desire ^d	4.33	1.31
Freq. of others attracted to me ^d	3.57	1.57
Freq. of irresistible woman ^d	4.01	1.59
Freq. of performing as a stripper ^d	1.35	1.35
Mean arousal to own rape fantasy ^f	3.04	.66
Mean arousal to rape fantasy presentation ^g	1.57	.81

^a Absolute range, 12–125

^b Absolute range, 7–32

^c Absolute range, 5–35

^d Absolute range, 0–6

^e Absolute range, 0–33

^f Absolute range, 1–5

^g Absolute range, 0–3.71

own rape fantasy ($r = .38$). For the desirability fantasies, feeling the partner's desire was not correlated consistently with the rape fantasy measures. In contrast, the fantasy of "others being attracted to me" was correlated with sexual arousal to the rape fantasy scenario ($r = .28$), and performing as a stripper was correlated with the forced sex by a man item ($r = .34$) and with sexual arousal to the rape fantasy scenario ($r = .25$). The openness variables showed consistent positive correlations with sexual arousal to both own rape fantasy and the presented scenario, with somewhat stronger relationships with own fantasy. The desirability fantasies showed somewhat stronger relationships with the presented scenario than with own fantasy.

To explore the meaning of rape fantasies in greater detail, sexual fantasy checklist items were examined to determine which non-rape items were most strongly correlated with the forced sex

by a man item. The highest of these correlations was with the fantasy of the female participant "overpowering or forcing a man to surrender sexually against his will" ($r = .55$).

Predicting the Frequency and Prevalence of Rape Fantasies

As the eight rape fantasies were not mutually exclusive and do not reflect specific frequency values, they could not be combined into a single measure of rape fantasy frequency. To control the number of analyses performed, analyses focused on the item for "forced sex by a man," which had been experienced by the largest percentage of women and which has been the item most used in previous research. In addition, the rape fantasy items were treated as a whole in analyses for predicting whether or not a participant had experienced any of the eight types of rape fantasy. Proportional odds (cumulative logit) ordinal regression was used to predict the frequency of the forced sex by a man item (Harrell, 2012; Williams, 2006) and binary logistic regression was conducted for assessing whether one had any of the eight types of rape fantasy or not, as shown in Table 4. In these models, odds ratios greater than one represent an increase in the probability of being in a higher category level on the ordinal outcome variable. For example, an odds ratio of 1.4 indicates a 40% increase (1.0–1.4) in the odds of being in a higher frequency category on the outcome measure if the score on the predictor was increased by one unit (Long, 1997). After initial tests, models were validated via a bootstrapping procedure in which the model was first fit to each of 150 bootstrapped samples and subsequently evaluated on the original dataset. This provided a sense of the average bias and a means for obtaining adjusted measures of fit (Harrell, 2001). Brant's test of the parallel lines assumption was met.

Predicting the Frequency of the "Forced Sex by a Man" Fantasy

Only one person reported having the fantasy at the highest frequency, so the two highest frequency categories were merged, reflecting a frequency of several times a week or more. As

Table 3 Spearman correlations between theoretically derived predictors and rape fantasy outcomes

	Forced sex by a man	Forced sex by a woman	Incapacitated	Forced oral sex by a man	Forced oral sex by a woman	Forced anal sex	Raped by a man	Raped by a woman	Sex arous. to own rape fant.	Sex arous. to scenario
Erotophilia	.27	.38	.13	.23	.32	.18	.16	.26	.38	.30
Openness to fantasy	.23	.26	.17	.25	.20	.12	.15	.22	.38	.23
Sensation seeking	.17	.21	.18	.18	.19	.12	.13	.15	.18	.19
Consensual sex fant.	.22	.18	.09	.21	.18	.10	.14	.14	.30	.18
Self-esteem	.19	.13	.16	.17	.03	.06	.12	.07	.21	.06
Feeling partner desire	.14	.10	.10	.10	.07	.02	.07	.11	.20	.22
Others attracted to me	.22	.15	.20	.21	.08	.10	.16	.15	.18	.28
Irresistible woman	.16	.09	.12	.19	.05	.07	.10	.06	.12	.21
Perform as stripper	.34	.27	.16	.25	.23	.19	.28	.20	.08	.25

Spearman correlations .14 or greater were statistically significant at $\alpha = .01$ for all variables except sexual arousal to own rape fantasy. For this variable, 86 participants gave a written description of a fantasy that qualified as a rape fantasy (see criteria in “Method” section), and with the reduced sample size, correlations .28 or greater were statistically significant at $\alpha = .01$

described above, theoretical predictors for sexual blame avoidance were erotophilia and frequency of consensual sexual fantasies (negative predicted relationships). Theoretical predictors for openness theory were erotophilia, frequency of consensual sexual fantasies, openness to fantasy, and sensation seeking. Theoretical predictors for sexual desirability were the frequencies of four non-coercive sexual fantasies with strong desirability themes and self-esteem. As indicated in Table 3, notable bivariate correlations with the forced sex by a man item included those for erotophilia and the stripper fantasy. For the regression predicting forced sex by a man, the bias-adjusted Nagelkerke R^2 was .15. The variables making notable unique contributions to prediction included self-esteem, consensual sexual fantasies, and the fantasy of performing as a stripper. The absence of a unique contribution for erotophilia suggests that much of its shared variance with the outcome variable was accounted for by other theoretical predictors. Further inspection for curvilinear effects resulted in no significant statistical or substantive advantage. As shown in Table 4, a one standard deviation increase in self-esteem was associated with a 41% change in the odds of being in a higher frequency category for forced sex by a man. Similarly, one *SD* changes in the frequencies of consensual sexual fantasies or the fantasy of performing as a stripper were associated with 47 and 60% changes in the odds of being in a higher frequency level for forced sex by a man.

The coefficients for predictors relevant for blame avoidance theory were positive and thus not in the direction predicted. The test of the null hypothesis that the coefficients for openness theory variables together were equal to zero was significant $\chi^2(4) = 14.41, p < .001$, with coefficients in the direction hypothesized by this theory. Further inspection of the openness to fantasy predictor suggested that while Brant’s test was met for the model in general and for all other explanatory variables, it was not met for this predictor specifically. Using a generalized ordered logit model (Williams, 2006), if one allows its coefficient to vary over the category

predictions, one finds initially that openness to fantasy did not significantly predict presence of the forced sex by a man fantasy. However, its odds ratio did become statistically significant and stronger in the prediction of higher frequency categories of the rape fantasy relative to lower frequency categories, up to an odds ratio of 1.20 for predicting the highest frequency category versus the lower frequency categories ($p < .001$).

The test of the null hypothesis that the coefficients for desirability theory together were equal to zero was also significant $\chi^2(5) = 34.23, p < .001$, although the directions of the desirability fantasy coefficients was somewhat mixed. An analysis was conducted to determine whether the predictors from desirability theory made an incremental contribution to predicting the fantasy of forced sex by a man after employing all of the predictors associated with openness theory. Adding the variables from desirability theory significantly contributed to model fit, likelihood ratio test for the analysis of deviance, $\chi^2(5) = 35.76, p < .001$.

Predicting Whether Participants Had Ever Had Any of the Eight Types of Rape Fantasy

Notable point-biserial bivariate correlations between the theoretical predictors and presence/absence of a rape fantasy of any type included the stripper fantasy ($r = .28$) and erotophilia ($r = .20$). The binary logistic regression for predicting the presence of having had a rape fantasy of any type from the theoretical predictors is described in Table 4. Notable unique predictors included self-esteem and the stripper fantasy. The test of the null hypothesis that the coefficients for openness theory variables together were equal to zero was not significant, $\chi^2(4) = 6.01$. The test of the null hypothesis that the coefficients for desirability theory variables together were equal to zero was significant, $\chi^2(5) = 23.07, p < .001$, with the coefficients consistent and in the predicted direction except for the item concerning feeling partner desire. A one *SD* positive change in self-esteem was associated with a

Table 4 Model results for a proportional odds ordinal logistic regression with frequency of the fantasy “being overpowered or forced by a man to surrender sexually against my will” as the outcome, and results for a binary logistic regression with the outcome of whether or not any type of rape fantasy was experienced

	Forced sex by a man			Rape fantasy of any type		
	Odds ratio	95% CI	% Change in odds ^b	Odds ratio	95% CI	% Change in odds ^b
	$\chi^2(9) = 73.34, p < .001$			$\chi^2(9) = 46.32, p < .001$		
	$R^2 = .20$ (adj. = .15) ^a			$R^2 = .17$ (adj. = .11)		
Erotophilia	1.01	.99–1.02	12.0	1.00	.99–1.02	11.1
Openness to fantasy	1.04	.99–1.09	22.0	.98	.93–1.03	–10.8
Sensation seeking	1.00	.97–1.04	1.1	1.03	.99–1.08	22.9
Consensual sex fantasy	1.32	1.07–1.64	47.2	1.13	.90–1.42	19.0
Self-esteem	1.07	1.03–1.12	41.2	1.07	1.02–1.13	42.9
Feeling partner desire	.87	.69–1.09	–16.6	.96	.74–1.23	–5.6
Others attracted to me	1.18	.97–1.43	28.9	1.08	.88–1.33	13.3
Irresistible woman	.91	.76–1.09	–14.5	1.03	.84–1.26	5.0
Perform as stripper	1.42	1.19–1.69	60.4	1.41	1.15–1.76	59.7

^a Statistically significant variables in bold ($\alpha = .05$). The R^2 reported is the Nagelkerke pseudo R^2 . The bias-adjusted R^2 was estimated via bootstrap validation, fitting the model across 150 bootstrap samples (Harrell, 2001)

^b Percentage change in the odds with a SD change in the predictor/explanatory variable

43% change in the odds of having experienced a rape fantasy of any type. Similarly, a one SD change in the frequency of having the stripper fantasy was associated with a 60% change in the odds of having experienced a rape fantasy of any type.

Fifty-two participants (14.6%) reported that they had been raped, which is consistent with other data from the U.S. population (Spitzberg, 1999). No relationship was found between whether participants had been raped and whether they had a rape fantasy of any type, $\chi^2(1) < 1$.

Three of the rape fantasy items involved a woman other than the participant: forced sex by a woman, forced oral sex by a woman, and raped by a woman. As might be expected, reported sexual orientation (heterosexual vs. lesbian/bisexual) was related to presence or absence of a rape fantasy involving a woman $\chi^2(1) = 45.17, p < .001$. However, of the 71 participants who reported having a rape fantasy involving a woman, 50 described their sexual orientation as heterosexual.

Predicting Sexual Arousal to Rape Fantasy

Sexual Arousal to Own Rape Fantasy

Using the criteria listed in the “Method” section, 24% ($n = 86$) of the fantasy reports qualified as rape fantasies. As indicated in Table 3, Spearman correlations between theoretically derived predictors and sexual arousal to own rape fantasy included notable positive correlations for erotophilia, openness to fantasy, and frequency of consensual sexual fantasies. An ordinary least squares regression was conducted to predict mean sexual arousal to own rape fantasy from the theoretical predictors. Results are shown in Table 5. R^2 was .23 (adj. $R^2 = .05$) and a notable unique

contribution to prediction was made by self-esteem. Erotophilia, openness to fantasy, and self-esteem made relatively strong contributions to the R^2 observed, as indicated by the index of relative importance in Table 5. This index reflects the proportion of R^2 contributed by each predictor as calculated from the squared semi-partial correlations averaged across all possible orderings of variable entry (Grömping, 2006). Note also that sexual arousal to own rape fantasy was strongly correlated with the self-rated attractiveness of the assailant in that fantasy ($r = .51$).

Sexual Arousal to an Auditory Presentation of a Rape Fantasy

Notable bivariate correlations between the theoretical predictors and sexual arousal were found for erotophilia and for the fantasy of “others attracted to me”, as shown on Table 3. An ordinary least squares regression was conducted to predict sexual arousal to the rape fantasy scenario from theoretically derived predictors, and this is shown in Table 5. The R^2 for this analysis was .14 (adj. $R^2 = .08$). Notable unique contributions to prediction were made by erotophilia and the fantasy of others attracted to me, and these variables also showed substantial contributions to R^2 as indicated by the index of relative importance.

Propensity for Having Rape Fantasies

The dimensionality of the eight types of rape fantasy was examined by determining how well a general factor accounts for variability in the items as compared to separate factors. Exploratory analyses were conducted by inspecting Omega Hierarchical (ω_h), Omega Total (ω_T), and Cronbach’s alpha (α) (McDonald, 1999).

Table 5 Model results for regression analyses predicting mean sexual arousal to one's own rape fantasy and mean sexual arousal to an auditory presentation of a rape scenario

	Own rape fantasy ^a					Scenario				
	$F(9,76) = 2.57, p = .01$					$F(9,345) = 6.39, p < .001$				
	$R^2 = .23, \text{adj} = .05^b$					$R^2 = .14, \text{adj} = .08$				
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	RI ^c	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	RI
Erotophilia	.01	.00	1.62	ns	.29	.01	.00	1.93	.05	.23
Openness to fantasy	.03	.02	1.66	ns	.22	.01	.01	1.45	ns	.13
Sensation seeking	.01	.01	<1	ns	.08	.01	.01	<1	ns	.08
Consensual sex fant.	.02	.08	<1	ns	.07	−.02	.04	<1	ns	.04
Self-esteem	.03	.01	2.21	.03	.20	.01	.01	<1	ns	.02
Feeling partner desire	.08	.08	<1	ns	.07	.06	.04	1.39	ns	.10
Others attracted to me	−.01	.09	<1	ns	.04	.08	.04	2.09	.04	.20
Irresistible woman	−.02	.08	<1	ns	.01	−.02	.04	<1	ns	.07
Perform as stripper	.00	.06	<1	ns	.01	.05	.04	1.40	ns	.13

^a Eighty-six participants reported a fantasy that qualified as a rape fantasy

^b Bias-adjusted R^2 for both models was estimated via bootstrap validation with 150 bootstrap samples

^c RI *relative importance*. This is the proportion of the total R^2 contributed by each predictor, based on the squared semi-partial correlations averaged across all possible orderings of variable entry (Grömping, 2006; Kruskal, 1987; Lindeman, Merenda, & Gold, 1980). These proportions sum to 1.0

The ω_h reflects the proportion of variance of the items accounted for by a common factor, while ω_T is based on variance accounted for by all factors that are common to some, but not to other items. (Note that high alpha may result from multiple correlated factors.) An exploratory factor analysis based on the polychoric correlation matrix of the items and using maximum likelihood estimation resulted in an ordering of these reliability statistics suggesting that the items were not unidimensional ($\omega_h = .65, \omega_T = .92, \alpha = .91$) (Zinbarg, Revelle, Yovel, & Li, 2005). These findings indicated the presence of a second factor of items that involved a female perpetrator, and these two factors accounted for more item variance than did a single common factor.

The SEM for the analysis used the variables derived from the openness, blame avoidance, and desirability theories to predict general propensity to have rape fantasies as represented by the two rape fantasy factors. The first factor comprised indicators of rape fantasy involving a male perpetrator or types of rape fantasy in which gender was not specified. The second factor was composed of items involving a female perpetrator. All rape fantasy items had relatively low responses in the higher frequency categories, and thus were collapsed to have at least ten responses in their highest frequency category prior to analysis. Analyses were conducted with Mplus 6.1 (Muthén & Muthén, 2011) using variance- and mean-adjusted weighted least squares estimation (WLSMV). Even though reliability statistics indicated a lack of unidimensionality, an initial model was fit with only one factor to serve as a starting point, and it was found to be of poor fit. By contrast, the two factor model did fit well by several metrics, although the Chi-square test was still significant at the .05 level (see Table 6 for path coefficients and measures of model fit).

While the Chi-square result may suggest more could be done with the model, inspection of the residuals for the observed-estimated correlation matrix showed no easily definable pattern of misfit attributable to specific variables, and no modification indices were found that would result in a statistically improved model.

With regard to the theoretically derived predictors, openness to fantasy, frequency of consensual sexual fantasies, self-esteem, and frequency of the stripper fantasy made statistically notable contributions to propensity for having rape fantasies involving a male perpetrator, with each of these predictors showing positive effects. For predicting propensity for having rape fantasies with a female perpetrator, erotophilia and self-esteem made notable positive contributions. As indicated by R^2 , the amount of variance accounted for by the theoretical predictors was .29 for the male factor and .42 for the female factor. All items loaded strongly on their respective factor, with loadings for the male factor ranging from .69 to .87 and loadings for the female factor ranging from .87 to .97, and the factors themselves were notably correlated ($r = .53$). As the SEM results are the product of an examination of currently existing and somewhat preliminary theories of rape fantasy, we take them to mean that the posited model fits well generally but should be seen as a starting point for further development.

Discussion

This was the first study to make systematic empirical comparisons among the three major theories of rape fantasy. Overall, 62% of participants reported having a rape fantasy of some type. Of the 52% of women who reported having the most common

Table 6 Path coefficients and model fit results from a structural equation model where theoretically derived observed variables predicted propensity for having rape fantasies involving a male^a or a female perpetrator

Covariate	Factor 1 (man)				Factor 2 (woman)			
	Coefficient (<i>SE</i>)	St. co. ^b	<i>z</i>	<i>p</i>	Coefficient (<i>SE</i>)	St. co. ^b	<i>z</i>	<i>p</i>
Erotophilia	.002 (.003)	.038	.50	ns	.024 (.005)	.450	4.40	<.001
Openness to fant.	.027 (.013)	.135	2.00	.045	.028 (.022)	.121	1.27	ns
Sensation Seeking	.009 (.009)	.058	.95	ns	.005 (.014)	.028	.37	ns
Consensual sex fant.	.154 (.058)	.218	2.64	.008	.063 (.095)	.077	.66	ns
Self-esteem	.039 (.011)	.198	3.38	.001	.034 (.017)	.151	2.04	.041
Feeling partner desire	−.079 (.059)	−.105	−1.34	ns	−.033 (.112)	−.038	−.29	ns
Others attracted to me	.100 (.054)	.160	1.86	.062	.028 (.091)	.039	.31	ns
Irresistible woman	−.059 (.046)	−.096	−1.27	ns	−.109 (.086)	−.151	−1.25	ns
Perform as stripper	.186 (.044)	.255	4.21	<.001	.156 (.091)	.184	1.71	.087

Model fit results: $\chi^2(51) = 107.58$, $p = .01$. RMSEA = .04, probability of RMSEA less than or equal to .05 was .94, CFI = .97, weighted root mean square residual = .81. R^2 for Factor 1 = .29, R^2 for Factor 2 = .42

RMSEA root mean square error of approximation, CFI comparative fit index

^a The male factor also included items with gender unspecified, the incapacitated and forced anal sex rape fantasy items

^b Standardized coefficient

rape fantasy, “being overpowered or forced by a man to surrender sexually against my will,” 40% had it at least once a month and 20% had it at least once a week. These results indicate that rape fantasies play a significant role in the sexual fantasy lives of many women. Note that only 32% of women reported that they had experienced the “raped by a man” fantasy item, as compared to the 52% who had endorsed the legally equivalent “forced sex by a man” fantasy. The stronger connotations of the term rape, which often suggests violent assault by a stranger, may have resulted in a number of women not classifying some of their fantasies as “rape” even though they met legal definitions of that term. Participants interpreted the terms “rape” and “forced sex” from their own frames of reference, as these terms were not defined for them. It should also be noted that no significant relationship was found between being the victim of actual rape and having rape fantasies.

The rape fantasy items formed two factors: fantasies with a male perpetrator or with perpetrator gender unspecified and fantasies with a female perpetrator. The female items were related to sexual orientation, as would be expected, even though the majority of women having these fantasies described themselves as heterosexual. The two strongest predictors of the female factor were erotophilia and self-esteem.

Sexual Blame Avoidance Theory

This study tested blame avoidance in several ways and none of the results supported this theory. Frequency of rape fantasies was positively, rather than negatively correlated with erotophilia and positively rather than negatively correlated with the frequency of consensual sexual fantasies. In addition, frequency of rape fantasies showed a strong positive correlation with the fantasy of

“overpowering or forcing a man to surrender sexually against his will.” If blame avoidance theory was accurate, a woman who has rape fantasies would be very unlikely to directly place blame onto herself by fantasizing about forcing a man to have sex with her.

At the present time, it is unclear why tests of this theory have generated several contradictory findings. Support for this theory dates back largely to the 1970s (Hariton & Singer, 1974; Moreault & Follingstad, 1978), but this is a theory with considerable intuitive appeal and it continues to be used as an explanation for rape fantasies. It may be the case that the culture has changed enough over the past several decades that levels of anxiety over being considered overly sexual have dissipated to the point that few women have rape fantasies to avoid blame for having openly consensual sexual fantasies.

Openness to Sexual Experience

The current study tested this theory in a number of ways and nearly all findings were supportive. Erotophilic women were more likely than other women to have experienced a rape fantasy of any type. In addition, women who were erotophilic, open to their fantasy experiences, and those who had frequent consensual sexual fantasies were more likely than other women to have frequent rape fantasies, particularly for the most common rape fantasy, that of “forced sex by a man.” The only openness variable that did not show relatively strong and consistent relationships with rape fantasy frequency was sensation seeking, which involved extending the openness construct to life experiences beyond the domain of sexuality. The openness theory variables appeared to be more successful in predicting frequency of the “forced sex by a man” fantasy than of the presence or absence of any type of rape fantasy. In further support of openness theory, women who were

more erotophilic and more open to their own fantasy experiences also reported more sexual arousal both to their own rape fantasy and to the presented rape fantasy scenario.

Desirability Theory

Desirability received a moderate level of support. Self-esteem showed consistent positive relationships with frequency of rape fantasies and with sexual arousal to one's own rape fantasy. These findings would seem to argue against the notion that there may be something unhealthy about having rape fantasies.

Frequency of rape fantasies varied somewhat with the type of desirability fantasy. The stripper fantasy showed consistent positive relationships with frequency of rape fantasies, but fantasies of being desired by one's partner did not. Two of the desirability fantasies, "others being attracted to me" and "performing as a stripper" showed positive relationships with sexual arousal to the audio presentation of a rape fantasy. In particular, it should be noted that the desirability variables made significant contributions to predicting frequency of the "forced sex by a man" fantasy when the effects of the openness theory predictors were held constant.

Limitations and Suggestions for Future Research

The participants in the current study were a convenience sample recruited from a college population, and, therefore, our findings may not generalize to older women or to younger, non-university populations. The study was also limited to self report of sexual arousal. The use of physiological measures of sexual arousal to rape fantasies would introduce an important dimension to this research since women's reports of sexual arousal and direct measures of vaginal arousal do not always correspond (Chivers, Seto, Lalumière, Laan, & Grimbos, 2010). Some women who become physiologically aroused to rape fantasies may have been reluctant to admit this arousal to others or even to themselves. As nonspecific female genital arousal may have an evolved function of protecting the genital organs from injury during sexual activities (Suschinsky & Lalumière, 2011), it may be of interest to compare levels of genital arousal for rape fantasies that differ in aversiveness.

Although blame avoidance theory was not supported in this study, it would be of interest to test this theory in a culture with higher levels of sexual repression. It may be the case that a threshold in level of sexual repression must be reached before a blame avoidance response is engaged.

The present study represented desirability theory largely through frequency of desirability fantasies. A more direct measure of the extent to which women want to feel sexually desired by others may provide new insights as to how much of the appeal of rape fantasies derives from the desirability theme. Some research (Hawley & Hensley, 2009) indicates that the desirability theme may be especially salient for dominant women and this should be examined further.

Although there is currently no direct evidence linking sympathetic activation to rape fantasies, future research should investigate whether an activation of general arousal in the form of fear, anxiety or anger from fantasy depictions of rape facilitate the sexual arousal generated by rape fantasies. As effects of general arousal on female sexual response have been documented (Meston & Gorzalka, 1995), this component of rape fantasies may complement the contributions of openness and desirability theories.

Blame avoidance theory was not supported and desirability theory received moderate support. Openness theory received the strongest and most consistent support. Although Openness theory provides a good beginning toward an understanding of rape fantasies, current evidence indicates that it is not a complete explanation. It is useful for helping to identify which women are most likely to have rape fantasies, namely those with positive views of their sexuality and a receptiveness to fantasy experiences, but effect sizes were not large, suggesting that other factors must also be involved. As an explanation for rape fantasies, openness theory seems to fit for women who have occasional rape fantasies along with a variety of other sexual fantasies, but it fits less well for women who have rape fantasies at high frequency. A conceptual limitation of this theory is that, in its present form, it does not really explain the role of force and non-consent in rape fantasies. In sum, openness and desirability theories are not inconsistent with each other and each appears to make a valuable contribution to explaining the occurrence of rape fantasies.

Rape fantasies, although taking on the outward manifestations of rape, appear to reflect, in part, a desire for submission to a dominant, passionate, and desirable man, which is a recurrent theme in romance fiction and one that may have evolutionary roots (Salmon & Symons, 2003). Although a sexual fantasy with such a man could occur in a consensual fantasy, most women who have rape fantasies have them in addition to consensual fantasies, perhaps reflecting a desire for thematic variety that would be consistent with openness theory. It may also be the case that a number of those who form a special attachment and preference for rape fantasies do so for idiosyncratic reasons stemming from their personal life histories rather than from a general personality characteristic that they all share.

The submission theme may relate both to evolutionary considerations and to structural limitations of the fantasy format. If the fantasy assailant is to display his power, dominance, and uncontrollable passion for the self character (desirability theory) and if this takes the form of a physical confrontation due to her resistance and non-consent, the heroine cannot afford to win the confrontation. This type of winning would diminish the male's sexual value to her. For many women, it may be difficult to become sexually aroused by a man who can be easily deterred and physically intimidated. In this way, the forced submission can function as a symbolic mating ritual. The theme of winning the male's heart and capturing him as a potential mate and protector is an explicit theme in romance fiction involving rape (Hazen, 1983) and it may be implicit in rape fantasy.

Early attempts to understand rape fantasy took the notion that fantasy often reflects a wish fulfillment and researchers applied this notion indiscriminately, concluding that rape fantasies must therefore show a wish for actual rape. Although rape fantasies do show similarities in structure to actual rape through the use of force and the presence of non-consent, as fantasies, they do not typically include uncontrolled violence, nor do they accurately simulate the distress of being forced to do something one does not want to do (Bivona & Critelli, 2009; Kanin, 1982). A key difference between rape and rape fantasy is that in a rape fantasy two women are involved: the character in the fantasy and the person who is constructing the fantasy. An erotic rape scene often occurs against the will of the character (Bivona & Critelli, 2009), but it is not against the will of the fantasizer. Investigating the nature, origin, and role of the desire for submission, determining the characteristics and personal histories of those who show a special preference for rape fantasy, and exploring the distinct roles of the self character and the fantasist may prove useful in developing a more complete understanding of women's rape fantasies.

Appendix: Rape Fantasy Items

How often do you fantasize about each of the following?

1. Being overpowered or forced by a man to surrender sexually against my will (forced sex by a man)¹
2. Being overpowered or forced by a woman to surrender sexually against my will (forced sex by a woman)
3. Being overpowered or forced into a sexual act against my will because I was incapacitated due to drugs, alcohol or sleep (incapacitated)
4. Being overpowered or forced by a man to give him oral sex (forced oral sex by a man)
5. Being overpowered or forced by a woman to give her oral sex (forced oral sex by a woman)
6. Being overpowered or forced to have anal sex (forced anal sex)
7. Being raped by a man (raped by a man)
8. Being raped by a woman (raped by a woman)

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¹ Descriptions in parentheses are shortened forms of the items that have been used for brevity in text and tables.

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