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# WHO IS THIS ABOUT? AN EXPLORATORY STUDY OF EROTIC SELF-FOCUS

By

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Bachelor of Science in Psychology United States Military Academy 1999

A thesis submitted in partial fulfillment of the requirements for the

Master of Arts -- Psychology

Department of Psychology College of Liberal Arts The Graduate College

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We recommend the thesis prepared under our supervision by

## **Evan Fertel**

entitled

# Who Is This About? An Exploratory Study of Erotic Self-Focus

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May 2015

#### **Abstract**

### Who Is This About? An Exploratory Study of Erotic Self–Focus

By

#### Evan Fertel

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While the literature highlights the significance of relationship factors in the subjective sexual arousal/desire of women, other research indicates that individual factors may be just as, if not more, important to women's sexual desire and arousal. Research on the influence of intrapersonal factors in sexuality, sexual fantasy, erotica consumption and paraphilic tendencies in a subset of MtoF transsexuals suggests that self-directed attention may play a key role in women's sexual arousal/desire. Some theorists have gone so far as to suggest that women are, to some extent, their own erotic objects. The present study explored the extent to which sexual arousal/desire is associated with selffocused attention in women, particularly compared with men. One-hundred ninety-six men and 193 women were recruited through Amazon's Mechanical Turk website in exchange for nominal compensation. Participants completed measures of erotic selffocus designed specifically for this study, as well as measures of body esteem, selfesteem and sexual function. Results confirmed the existence of greater erotic self focus tendencies in women relative to men. Further, participants perceived women as more inclined toward erotic self-focus compared with men.

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#### **Chapter 1: Introduction**

Ongoing efforts to understand female sexual desire and arousal (subjective and physical) continue to confirm the complexity of these two inter-related constructs.

Historically, the purely subjective nature of desire has eluded sound operationalization.

Attempts to concretize desire have traditionally resorted to a biological drive model that seems to align better with the desire experiences of men than of women. This visceral conceptualization of desire has cultivated a pathologizing of female sexuality, indicated by suspiciously high prevalence rates for low desire and Hypoactive Sexual Desire

Disorder (HSDD); upwards of 30% in some surveys (Laumann, Paik & Rosen, 1999).

Furthermore, the constructs of desire and subjective arousal are difficult to tease apart, and women themselves claim to make little distinction between them (Graham, Sanders, Milhausen, & McBride, 2004). Perhaps most confounding is the low concordance between physical arousal (e.g., vasocongestion) and desire/subjective arousal in women. One would expect these two processes to co-occur, yet they do so much more reliably in men (Chivers, Seto, Lalumière, Laan, & Grimbos, 2010).

The research of the last fifteen years indeed confirms a greater complexity in the sexual response of women. Subjective arousal appears to be mediated by a greater number of contingencies in women than in men, in whom subjective arousal appears to be more automatic. Recent models attempting to elucidate the female sexual response have emphasized relationship factors as key arousal contingencies (Basson, 2000). The theory therein is that the excitation or inhibition of a woman's desire hinges, to a large extent, on her feelings about her partner and the quality of the relationship. This theory aligns well with widely held stereotypes characterizing female sexuality as relationally

driven (e.g., Men are from Mars, Women are from Venus) as well as some research (Basson, 2010). However, this relationship-centered depiction of female desire and arousal may not be as robust as claimed by some theorists.

There is a significant body of literature indicating that individual factors may play a greater role than relational ones in women's desire. These include mood, stress, selfesteem and body image. While some of these individual factors may be affected by relational ones, they are in part orthogonal. Mood and stress have been shown to interfere with the sexual function of both men and women, but the self-reported effect of these influences on women is much stronger (Bancroft, Graham, Janssen, & Sanders, 2009). In fact, men report seeking sex to regulate mood, a practice less commonly reported by women. Likewise, low self-esteem and negative body image have been associated with decrements in the sexual function and satisfaction of both men and women; however, women report these contingencies as desire inhibitors more often than do men. While unfavorable self-reflection seems to have a particularly deleterious effect on women's sexual function, favorable self-reflection may also be a greater sexual enhancer for women than for men. In other words, negative feelings about the self may be greater desire inhibitors for women than for men and positive feelings about the self may be greater desire promoters for women than for men. This might argue for a less relational theory of female sexuality, given the impact of self-related variables on women's desire.

In fact, some research suggests that women's sexual desire may be even more acutely autonomous and self-focused than suggested by the impact of self-related variables on sexual desire and subjective arousal. To some extent, women may be their

own source of sexual desire/subjective arousal – their own sexual stimuli. The sexual fantasy literature lends support to this hypothesis, as women report a great deal of sexual fantasy centered on the self rather than on the qualities of a partner (Meana, 2010). In some of the fantasy literature, women appear to be their own erotic 'objects,' with the sexual satisfaction of partners barely registering (Zurbriggen & Yost, 2004). Some researchers have even suggested that women may experience some degree of autogynephilia (Moser, 2009), a construct defined as arousal emanating from the real or imagined experience of womanhood. While the implication of autogynephilia in women may seem extreme given its paraphilic connotation, self-directed attention appears to play a significant role in women's sexuality in so much as can be inferred from research largely intended for other purposes. There are very few studies that directly test the hypothesis that women may be, to some extent, their own sexual stimuli.

The aim of this study is thus to spearhead the direct investigation of the extent to which self-focus is differentially associated with sexual desire/subjective arousal in men and women. To that end, I will first review the relevant literature and propose an exploratory study that examines the construct of erotic self-focus as it relates to participants' experiences and perceptions.

#### **Chapter 2: Literature Review**

Efforts to understand female sexual desire and arousal have often yielded confounding and paradoxical results that raise as many questions as they provide answers. Some findings support commonly held beliefs of what women want and how that differs from what men want, while others challenge the very notion of desire and arousal as motivational states aimed at sex. When comparing desire to arousal, and other phases of the sexual response, such as orgasm, the construct of desire appears decidedly unique. Unlike arousal, desire has no reliable physiological referents and, unlike orgasm, it is not a discrete event that can be observed or easily counted. Thus, desire presents as the most nebulous component of the human sexual response – a supposed motivational state that defies easy operationalization other than self-report of its experience. The literature is filled with differing theoretical perspectives on desire (Meana, 2010), while formal attempts to capture the public's definition of desire yield an array of interpretations (e.g., Brotto, Heiman, & Tolman, 2009; Goldhammer & McCabe, 2011). These efforts to define desire raise questions as to whether desire is physical in nature, behaviorally based, an emotional state, a cognitive process, an interpersonal dynamic or a combination of some or all of these elements.

#### **Traditional Models of Desire and the Sexual Response**

Considering this difficulty in operationalizing sexual desire, it is perhaps not surprising that the construct was absent from early models of sexual response. The Masters and Johnson model, introduced in 1966, consisted of a linear four stage model that begins with arousal/excitation, progresses into a plateau phase in which excitation is maintained, culminates with orgasm, and winds down in a resolution phase. This

physically-based model did not include desire as a separate component of the sexual response. Masters and Johnson's (1966) laboratory research was physiological and thus desire did not make a distinct appearance. Ten years later, Kaplan (1977) argued that any description of the sexual response that did not incorporate a specific motivational phase was necessarily incomplete. She thus reformulated and condensed Masters and Johnson's model into a tri-phasic one wherein the sexual response consists of sequentially experienced desire, arousal and orgasm.

**Inherent assumptions about desire in the Tri-Phasic Model.** Implicit in Kaplan's (1979) tri-phasic model of sexual response are several assumptions about the concept of desire, as noted by Meana (2010). First, the model assumes sexual desire to be a spontaneous motivational state characteristic of other biological drives, such as hunger or thirst. Second, the model is linear and ordinal such that desire occurs first and is followed by arousal, which in-turn leads to sexual activity culminating in orgasm. Third, the structure of the model divides the stages into separate, non-overlapping phenomena. Fourth, it assumes that sexual activity and orgasm are the goals of sexual desire. Running through all of these assumptions is the meta-assumption that men and women have the same sexual response. Finally, the biological nature of the model does not incorporate or acknowledge the various contextual factors capable of influencing the experience of every phase of the model. For example, the model does not account for the potential impact of variables associated with an individual's relationship with their sexual partner; and, on a societal level, it does not consider the role of social and political forces that may alter the expression of sexual response across gender or socioeconomic status.

In their defense, it is likely that neither Masters and Johnson nor Kaplan saw the latter as within the purview of their simple models.

Kaplan's model was the basis for the Diagnostic and Statistical Manual of Mental Disorder's (DSM-IV-TR; American Psychiatric Association [APA], 2000) operationalization of sexual desire for the purpose of diagnosing sexual dysfunction. Consequently, the DSM adopted the assumptions inherent in the model. The fourth edition of the DSM categorizes sexual disorders by the distinct phase of response being disrupted, consequently separating desire from other stages of the sexual response. Therein, Hypoactive Sexual Desire Disorder (HSDD) is defined as a persistent or recurrent deficiency or absence of sexual fantasies and desire for sexual activity that causes marked distress or interpersonal difficulty. This definition clearly adopts the idea of desire as spontaneous in nature and as an ordinal predecessor to a defined outcome (i.e., sexual activity/orgasm). While the definition notes interpersonal difficulties as a potential result of low desire; commensurate with the described assumptions, the DSM definition does not recognize the role of these factors in the generation of desire. It also adds a further assumption about desire; that sexual cognitions are an important defining feature. The updated edition of The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) modifies some of these assumptions in an attempt to elevate the theoretical accuracy and clinical utility of diagnostic criteria. While time will evaluate the impact of these adjustments, the present state of the desire paradigm is a product of previous diagnostic conceptualizations of desire. Nonetheless, the implications of these updates are acknowledged in the analysis below, when relevant.

Deconstructing the assumptions of the Tri-phasic Model and DSM definition of desire.

Assumption of gender neutrality in the experience of desire. Public perception and decades of research consequent to the introduction of the tri-phasic model of the sexual response indicate that there are consistent and significant differences between men and women in regard to their experience and expression of sexuality (for a review, see Petersen & Hyde, 2010). Research further suggests that the conceptualization of desire espoused by Kaplan and the DSM may be a better fit for men's experience of desire than for that of women. As elaborated in the following sections, the spontaneous, linear, fantasy driven, goal oriented and decontextualized experience of desire does a reasonable job of accounting for the experience of many men. The story with women is different; something the new DSM attempts to address by separating desire difficulties under gender specific diagnoses.

Assumption of desire as a spontaneous, visceral drive. Research consistently indicates that women appear to have a lower biological drive for sexual release (Basson, 2000; Baumeister, Catenese, & Vohs, 2001). Despite girls maturing faster than boys, boys report sexual feelings emerging at a younger age relative to girls, with the majority of boys recognizing their own experience of sexual excitement before age 13; an event that typically occurs at a later age in girls (Baumeister, Catanese, & Vohs, 2001; Leiblum, 2002). This trend appears to hold into adulthood, as men in one study reported experiencing spontaneous sexual excitement more times per day than women reported encountering over the course of a week (Knoth, Boyd, & Singer, 1988). Furthermore, men generally indicate their desire as more easily evoked relative to women's reports

(Baumeister et al, 2001). In a survey of undergraduates, Jones and Barlow (1990) discovered men reporting twice as many sexual urges per day as did female participants. While both men and women report sometimes feeling desire as an unprovoked impulsive force, this phenomenon seems to be more characteristic of men's experiences.

Assumption of sexual cognition as a defining feature of desire. The association between sexual fantasy and desire also appears to be significantly stronger in men than in women. Relative to men, whose sexual fantasies often serve as a "guidepost" for their desire, sexual fantasy is not often reported by women as evidence of desire (Brotto, 2010; Goldhammer & McCabe, 2011). In women's narratives about sexual desire experiences, sexual fantasy is not a prominent theme (Brotto, Heiman, & Tolman, 2009). Rather, there is a significant amount of evidence to suggest that women intentionally use fantasy to induce desire and heighten their arousal, before or during sexual activity (Brotto, 2010a; Goldhammer & McCabe, 2011; Hariton & Singer, 1974; Lunde, Larsen, Fog, & Garde, 1991; Meana, 2010; Purifoy, Grodsky, & Giambra, 1992). The only exception to this finding in the literature appears in Regan and Bersheid's (1995) study in which 8.7% of men identified sexual cognitions as an antecedent to sexual desire compared to 14.5% of women. The majority of the literature, however, supports the contention that men experience fantasy spontaneously and associate it with desire while women invoke fantasy so as to trigger desire. Clearly, fantasy is arousing to both men and women (Ellis & Symons, 1990), but its temporal relationship to sexual desire appears to differ between genders. In a 1991 study aimed at capturing young men and women's experiences of sexual desire, Beck, Bozman, and Qualtrough (1991) asked subjects to identify the types of thoughts they felt best represented their sexual desire. Nearly 30% of the men reported sexual fantasy associated with their desire, as compared to only 6% of women. Without explicitly distinguishing between sexual daydreams and sexual fantasy, the same study showed a similar, but less stark, gender trend with 19.3% of men associating sexual daydreams with their desire, relative to 17.9% of women. Both the fantasy and daydream findings support a stronger association between sexual cognitions and desire among men. Thus, conceptualizing desire in terms of fantasy aligns better with the experience of men and seems much less significant for women.

Assumption of desire as an orthogonal and goal oriented state. The traditional model's assumption of desire as both a goal directed state and an independent phase of the sexual response is compatible with Regan and Berscheids' (1999) potentially more comprehensive characterization of desire as a mental awareness of an impulse to achieve a sexual goal. However, considering desire as a psychological awareness of sexual drive is hardly different from being aware of one's own sexual arousal. Thus, some interpretations consider desire and subjective sexual arousal as essentially indistinguishable (Everaerd & Both, 2001; Levine, 2002; Meana, 2010). This perspective is particularly salient in women's experience of desire. In fact, women in several surveys report not being able to differentiate between sexual desire and subjective sexual arousal (Bancroft & Graham, 2011; Basson, 2010; Goldhammer & McCabe, 2011; Graham, Sanders, Milhausen, & McBride, 2004). Thus, for women, the lines between the purportedly orthogonal stages of the supposed sexual response are blurred with the potential overlap of desire and arousal (subjective and physiological).

It is notable that Kaplan's model did not clearly distinguish between cognitive/subjective arousal and physiological arousal, and likely placed greater emphasis

on the physiological component, in the form of genital arousal. However, this is problematic for women as 1) they do not easily distinguish between subjective and physiological arousal when they are subjectively aroused and, conversely, 2) they often experience physiological arousal in the absence of desire/subjective arousal. A recent meta-analysis reviewed over 130 articles exploring the concordance between genital and subjective sexual arousal in men and women (Chivers et al., 2010). Results indicated that, across relevant studies, the correlation between men's subjective and genital arousal was r = .66, while the overall correlation for women was r = .26. The low correlation in women was directly attributable to their relatively indiscriminant physiological arousal to all manner of sexual stimuli, regardless of subjective arousal. Thus, we are left with the paradox that women often experience genital arousal in the absence of desire/subjective arousal but, when they co-occur, women report them to be relatively indistinguishable. In an attempt to account for the blurred lines between desire and subjective arousal in women, the DSM-5 combines the two elements under one diagnosis: Female Sexual Interest/Arousal Disorder.

While the sexual goal component of Regan and Berscheid's (1999) definition of desire is somewhat nebulous, the Kaplan/DSM definition clearly identifies the aim of desire as sexual activity in pursuit of sexual climax, as do theorists such as Levine (1987, 2002, 2003) who asserts that sexual desire takes us closer to or further from sexual behavior. Research indeed supports the notion that men's sexual desire is generally oriented toward sexual activity, whether individual or partnered. However, for women, desire seems directed toward multiple outcomes. Unlike men, who appear highly motivated toward sexual behavior (Baumeister et al., 2001), women's desire appears less

behaviorally oriented. Many women report desire as an end in itself, without the need for behavioral consummation (Goldhammer & McCabe, 2011). In one survey, only half of the women characterized the sex act as the focus of their desire (Brotto et al., 2009). Therefore, the traditional model's idea of desire as focused on engaging in sexual activity may align better with the experience of men.

Assumption of desire as independent of context. Intuitive though it may seem to assume that desire is aimed at behavioral consummation and that behavioral consummation implies the existence of desire, human sexuality is far more complex than that. There are numerous social, relational, and personal reasons why people refrain from sexual behavior despite the presence of desire (Lanti, 2012) or engage in sex for reasons other than desire (Meston & Buss, 2007). While both men and women report having sex in the absence of desire and desist from sexual activity despite desire, there is reason to believe that sexual activity and sexual desire have a stronger connection in men than in women. For example, Lanti (2012) surveyed over 600 college students about refraining from sex when desire for a willing partner was present. Common categories of reasons given for avoiding sex were pregnancy and health risks, adhering to values that made sex unacceptable at that time, fear of social consequences, and relationship avoidance/promotion motivations. Overall, however, the results showed women endorsing a wider range of reasons for abstaining from sex despite desire and the availability of a willing partner.

Gendered social dynamics, in which women generally assume/are relegated to the more submissive role, would suggest that women would also be more likely than men to acquiesce to sex in the absence of desire (Impett & Peplau, 2003). Conversely, in such a

dynamic, a man is less likely to concede to his partner's advances when he is not experiencing desire. In addition to compliant sex, in which women agree to sex they do not desire, coerced sex [with men being by far the more common coercers (Byers & Glenn, 2012; O'Sullivan, 2005)] is yet another example of the desire-behavior incongruence in women (albeit not of their choosing). The updated DSM attempts to consider context in diagnostic criteria in the evaluation of female desire/arousal problems.

Assumption of desire as the first step in an ordinal sequence. For women, it appears non-sexual motivational factors play a more significant role in the initiation of sexual activity and consequent desire and arousal. Non-sexual motivations, such as the desire for emotional closeness or the desire to please a partner, can lead to sexual activity in the absence of sexual desire, with sexual desire potentially emerging after, and conceivably as a result of, arousal (Hurlbert, Apt, Hurlbert, & Pierce, 2000). Whether it is a man who masturbates out of sheer boredom or a woman who acquiesces to sex merely because it is her partner's birthday, there can be a clear disconnect between the desire to have sex and participating in a sexual act, with non-sexual motivational forces bridging the gap. Once we acknowledge that both sexual desire and non-sexual motivations can lead to sexual activity, which can in turn result in arousal and the desire for sex, it becomes clear that desire can manifest itself at multiple points in the sexual response as opposed to only at the beginning, as delineated by the original linear response models. Women's endorsement of a greater number of non-sexual motivations for sex highlights yet another gender disparity supporting the notion that the ordinal Kaplan model is a better fit for men. The non-biological, non-sexual and socio-relational nature

of these motivational influences, particularly significant in women's experiences, represent contextual factors that the traditional model does not account for.

Implications of applying the traditional model. Across the board, it seems the traditional tri-phasic model of sexual response, and concomitant DSM criteria, have endorsed a functional definition of desire that does a better job at capturing men's experiences, while apparently missing the mark with women. The consequence of applying a flawed and male analog model to the sexual experience of women has been a pathologizing of women's desire and sexual response. Changes to the DSM-5 diagnostic criteria for female sexual dysfunctions intend to correct this problem. As noted above, they include the combining of desire and arousal problems into one diagnostic category, a polythetic approach to symptomatology, and a more serious consideration of contextual influences (Brotto, 2010). However, the operationalization of sexual desire in all previous editions of the DSM have led to the current situation in which women generally report much lower levels of desire than men, and meet the just recently outdated criteria for disordered desire at epidemic rates.

Low sexual desire complaints. Data from multiple epidemiologically sound international surveys, such as the National Survey of Sexual Attitudes and Lifestyles (NATSAL: Mercer et al., 2003), the National Health and Social Life Survey (NHSLS: Laumann et al., 1999) and the Global Study of Sexual Attitudes and Behaviors (GSSAB: Laumann et al., 2005), consistently show that women report low sexual desire at double to triple the rates of men. This gender discrepancy grows even larger when considering reported instances in which diminished desire persists over time (Brotto & Klein, 2007; Mercer et al., 2003).

More specifically, in the NATSAL study of over 11,000 British men and women who were sexually active in the year prior to data collection, 17% of men versus 40% of women reported experiencing low sexual desire for a period of at least one month over the previous year (Mercer et al., 2003). When considering longer time frames, 10% of women in the NATSAL reported low desire for a period of six months or more, whereas less than 2% of men endorsed such lasting impairments in desire. In the NHSLS, over 1,000 American men and women between the ages of 18 and 59 responded to inquiries about sexual symptoms during in-person interviews. Reports of low desire were more common among women (27% to 32%) relative to men (14% to 17%) (Laumann et al., 1999). A survey of over 5,000 Finnish women between the ages of 19 and 49 found 55% of respondents reporting low desire on a measure of sexual function (Witting et al., 2008). In a series of interviews of more than 1,000 Swedish women, 60% of interviewees disclosed low desire issues that were at least mild in nature (Fugl-Meyer & Fugl-Meyer, 1999). The same study included interviews with 1,400 Swedish men of which only 16% indicated lack of interest in sex. In a cross-sectional telephone interview of Australian adults between the ages of 18 and 59, more women than men (27% - 40%) versus 14% - 19%) reported a lack of interest in sex over a period of several months or more (Najman, Dunne, Boyle, Cook, & Purdie, 2003). The international GSSAB survey of sexually active adults between the ages of 40 and 80 from 29 countries, surveyed 13,882 women and 11,205 men. Among women, low sexual desire was the most commonly reported sexual problem, with 26% to 43% of women across countries indicating a lack of interest in sex lasting two months or longer (Laumann et al., 2005). The incidence of low desire for men in the same study ranged from 12.5% to 28%.

None of the aforementioned studies focused on HSDD specifically (which requires a report of marked distress or interpersonal difficulty) but rather on self-ratings of sexual desire. It is interesting that women are ranking as low what may in fact be normative for them. It is hard to know who they are comparing themselves to when they rate their desire as low, but it is likely their male partners. It could be that male levels of sexual desire have been held up as the standard to which women compare themselves and find themselves lacking. More research is needed on how women arrive at their desire self-assessment.

In clinical settings, desire difficulties are by far the most prominent complaint of women presenting for treatment (Meana, 2010). In some clinical settings, low sexual desire was the reason for seeking treatment in nearly half of female clients (Hurlbert et al., 2005). In contrast, surveys of men frequently vary with regard to the most prominent sexual problem, with low desire, premature ejaculation, and erectile dysfunction topping the list of most endorsed sexual issues across studies (Brotto, 2010).

Brotto (2010) postulated that the prevalence rate of HSDD in men is somewhere between 1% and 20% depending upon demographics and method of measurement. In a review of low desire in women, Brotto (2010a) reported prevalence rates of HSDD in women ranging from 8% to 23%, while attributing the variation in figures to method of measurement. In any case, there appears to be a clear overrepresentation of women diagnosed with HSDD across studies (Meana, 2010).

With potentially upwards of 40% of women reporting persistent low desire and as many as 20% meeting criteria for HSDD, desire "deficiencies" appear ubiquitous and clinical diagnoses of disordered desire seem commonplace in women. Are so many

women really experiencing low sexual desire? Or, are these statistics the result of measures and diagnostic categories that fail to consider desire as a gendered construct that is experienced and manifested differently in men and women? A number of clinicians and researchers in the last two decades fear it is the latter and have proposed a new conceptualization of desire and the sexual response that may better account for women's experiences.

#### **New Models of the Sexual Response**

In 2000, Rosemary Basson attempted to reconceptualize sexual desire and arousal within a model that she argued better represented the experiences of women. Although her model was meant to incorporate both male and female experiences of desire, it clearly targeted the contextual influences on female sexual desire that traditional drive-centered models neglected. While Basson (2000, 2010) recognized that women experience desire that feels like a spontaneous biological drive, especially toward the beginning of sexual relationships, her model highlights the notion that women's desire more commonly arises in response to a sexual opportunity. She termed this "receptive desire" as opposed to "spontaneous desire." For example, a woman may agree to a partner's advances for any number of reasons (e.g., desire for emotional closeness) but, once engaged in the activity and aroused, she may shift from a sexually neutral condition to a state of sexual desire. This example emphasizes the potential of non-sexual motivations as gateways to sexual desire. Non sexual motivations may be the trigger, but once sex starts and arousal is instated, desire follows. Note that the occurrence of arousal before desire violates the linear order of the Kaplan paradigm.

To accommodate the sequential flexibility of women's sexual response, Basson thus advocated a circular model. A circular model allows for multiple points of entry into the sexual response, such that desire is not necessarily the starting point (although it can be). The circular structure also provides the opportunity for multiple goals/outcomes of sex. Unlike the traditional model which is focused on orgasm as the main reinforcer of desire and sexual activity, Basson's model also accounts for emotional and relational reinforcers particularly valued by women. Additionally, Basson (2010) acknowledged the potential overlap between arousal and desire in the experience of women. Thus, her model, unlike the traditional one, does not rigidly divide the components of sexual response into discrete events.

Compared to Kaplan's model that begins with a spontaneous desire to seek out arousal via sexual activity leading to orgasm, a single example of an episode in Basson's model might be characterized by a woman in a sexually neutral state acquiescing to her partner's advances because she wants to feel emotionally close to him or her. The stimulation of the sexual interaction arouses her genitally and subjectively, which blends into a responsive state of desire with elevated arousal. The sexual pleasure and/or release of the interaction might serve to provide sexual satisfaction and potential physical wellbeing. More importantly, however, the interaction provides nonsexual rewards such as emotional closeness. These nonsexual rewards serve as reinforcement for the woman to readily receive her partner's future advances. Thus, the Basson model attempts to recognize the complexity of women's desire and account for the contextual elements, most notably relationship factors, argued by her and others to be highly significant in women's sexual response.

Support for a relational model. Theoretically, Basson's conceptualization of desire appears to be more compatible with the experiences of women and potentially a more viable standard by which to gauge desire in women. Past research provides ample support for the significance of relationship dynamics in women's desire, especially compared to men's desire experiences. A survey by Brown and Auerbach (1981) suggested that women's motivation for sex may be primarily extrinsic and directed at relationship factors such as love and intimacy whereas men report their leading impetus for sex to be intrinsic and aimed at the release of sexual tension. Further, women tend to find arousal value in relational elements (Byers, 2001; Meana, 2010). In a study with premenopausal women, respondents cited feeling accepted and sought after by a partner as significant triggers of sexual desire (Graham et al., 2004). Further, Regan and Berscheid's (1996) qualitative analysis of desire experiences emphasized love, romance and emotional intimacy as key aspects of women's desire experiences, as compared with men. An earlier survey by Regan and Berscheid (1995) highlighted the perception that women's desire is often triggered by romantic and interpersonal factors, in contrast to men's desire which appears to more often be the result of intrapersonal forces and exposure to erotic stimuli. A British study investigating the self-perception of sexual functioning in women clinically evaluated for sexual dysfunction found them to primarily attribute their sexual problems to relationship and emotional difficulties (King, Holt, & Nazareth, 2007). Further, an Australian study with women from the general population cited relationship factors as the primary reported mediator of participants' sexual desire (Hayes et al., 2008). While they disagree as to the theoretical mechanisms behind

relationally-based desire, both Baumeister (2000) and Diamond (2006) emphasized relationships as a key element in women's sexual desire.

In a review of gender differences in sexual cognition, Geer and Manguno-Mire (1996) discussed several studies illustrating the prominence of relationship-based themes in women's sexual cognitions. Compared with men, women's fantasies more often featured motifs of romance, affection and commitment (Hardin & Gold, 1988; Kelley, 1984; Pryzbyla, Byrne, & Kelley, 1983). In a survey examining gender differences in sexual fantasy, Ellis and Symons (1990) reported context, both emotional and physical/environmental, as a particularly significant facet of women's sexual fantasies. On a cognitive linguistic level, women appear to prefer romantic words over explicit sexual words, with men demonstrating an opposite preference (Geer & Bellard 1996).

Questioning the fit of a relational model. Overall, there are plenty of studies supporting the idea of women's desire as responsive to relationship factors, which in turn provides an empirical basis for Basson's responsive and relationally-based model. However, the literature also contains criticism of Basson's model. The most prominent critique of the relational model argues that its applicability to women may not be universal, such that Basson's conceptualization might best fit women reporting sexual difficulties. Basson's initial series of articles presenting the circular/relational model were largely theoretical in nature (Basson, 2000, 2001, 2002). In her first empirically based analysis providing support for her model, Basson (2001) utilized a sample of women presenting with low sexual desire, half of whose low desire was found to be related to contextual factors, such as relationships. Indirectly supporting the contention that Basson's model may be most applicable to women with desire difficulties is its

greater endorsement by older women and women in long-term relationships, two groups known to report lower levels of desire (Basson, 2002; Lieblum, 2007; Meana, 2010). In one of a couple of direct tests of Basson's model, Sand and Fisher (2007) presented 580 female nurses in the United States with descriptions of the Masters and Johnson, Kaplan, and Basson models of the sexual response and asked them which one best fit their experience. Reponses varied as a function of scores on the Female Sexual Function Index (FSFI). Women with the highest levels of desire endorsed the linear models of Masters and Johnson and Kaplan; whereas, women who scored lower on the desire scale endorsed Basson's model. It is also notable that, of the roughly 85% of the sample who decidedly endorsed a particular model, responses were evenly distributed across the three models (i.e., Masters and Johnson, Kaplan, Basson). This means that, overall, twice as many women endorsed a linear/spontaneous model than a circular/responsive model.

Giles and McCabe (2009) found a similar pattern of results in a random sample of 404 Australian women, with the linear model more closely representing the experiences of women without sexual function problems. Actually, independent of sexual function, the majority of women endorsed the linear model. In a 2011 review of models of female sexual response, Hayes (2011) cautiously suggested that the majority of women identify with the traditional linear/spontaneous models of response while also acknowledging women's experiences of responsive desire that are sensitive to contextual factors and level of sexual functioning. Hayes cited the existence of modified models, such as Basson's (2005) composite model, incorporating both spontaneous and responsive desire; however, he argued that flexible models that account for all contingencies are of limited value, as they are difficult to test or interpret. Ultimately, the research seems to imply

that Basson's circular/responsive model is endorsed most consistently by older women and those with sexual difficulties; the traditional linear/spontaneous model may better represent the experiences of younger women and those without sexual complaints.

Although Basson's sensitivity to women's diverse desire experiences and to the importance of relational factors was a welcome calibration to traditional drive models of sexual desire and response, it may have constituted an over-correction. The scarce data testing the different models suggests that women's sexuality is complex and not easily encompassed by any one of the extant models of the sexual response. While the drive model may have been overly reductionistic, the Basson model may have overstated the influence of relational factors on women's sexual desire.

#### **Evidence for Non-Relational Aspects of Female Sexual Desire**

Intrapersonal variables. Although research supports the role of relational factors in women's desire, there is also a substantial body of work indicating that women's sexual desire/subjective arousal may be at least as contingent on how they feel about themselves as on how they feel about their partners or relationships. More specifically, body image, mood and self-esteem feature prominently in female sexuality and these factors appear to be relatively independent of partner variables.

Body image. A comprehensive review of body image and female sexuality by Woertman and van den Brink (2012) acknowledged the existence of little direct research on the relationship between body image and sexual desire in women. For men, the literature in this area is even more scarce. The existing research highlights the significance of body image in women's sexual functioning, especially relative to men. From a qualitative standpoint, female respondents in a focus group study shared that

feeling comfortable with one's own body served as a facilitator for sexual arousal (Graham et al., 2004). A similar qualitative survey of men also highlighted body image as influential to sexual arousal; however, the topic featured relatively less prominently than in Graham et al's female focus groups (Janssen, McBride, Yarber, Hill, & Butlers, 2008). An investigation of the relationship between body image and romantic love (Ambwani & Strauss, 2007) contained a qualitative component that suggested body esteem to play a more salient role in women's sexual relationships compared to men. Additionally, relative to men, women report greater body image related distraction during sex (La Rocque & Cioe, 2011, Meana & Nunnink, 2006) and a greater tendency to actively conceal their bodies during intimacy with a partner (La Rocque & Cioe). Beyond the few studies examining gender differences in the relationship between body image and sexual desire and arousal, the number of individual studies examining the topic in women appears much greater than those focused on men. In a nonclinical sample of 85 college women in the United States, Seal, Bradford and Meston (2009) found a positive correlation between body esteem and self-reported levels of sexual desire. Koch, Mansfield, Thurau and Carey (2005) cited a similar trend among a large sample of middle-aged women (age 39-56) in which a direct relationship between self-perception of attractiveness and sexual desire was shown. Most recently, Satinsky, Reece, Dennis, Sanders and Bardzell (2012), found body appreciation in women to be unrelated to levels of sexual desire. However, the study did find a significant relationship between body appreciation and measures of subjective sexual arousal. Further, Wiederman (2000) surveyed over 200 college-age women and found sexual avoidance to be associated with higher body image self-consciousness. As noted earlier, sexual behavior is not always a

reliable correlate of desire; however, it appears notable that multiple studies cited a relationship between higher body satisfaction and certain sexual behaviors in women, including greater sexual frequency, higher likelihood of initiating sex, proclivity towards sexual experimentation and more sexual experience (Ackard, Kearney-Cooke, & Peterson, 2000; Trapnell, Meston, & Gorzalka, 1997; Woertman & van den Brink, 2012).

**Mood.** The relationship between mood and sexual desire appears to be more robust in women than in men, for both persistent mood traits and variable mood states. In a comparison of women with and without depressive symptoms, Kuffel and Heiman (2006) showed depressed women scored significantly lower on desire measures than did their non-depressed counterparts. Additionally, Hartmann, Heiser, Ruffer-Hesse and Kloth (2002) found women reporting low desire to exhibit more anxiety, worry and mood instability than those not reporting sexual problems. Further emphasizing the nonrelational nature of these associations, Hartmann et al. (2002) found no notable differences in general measures of relationship quality between desire groups. Additionally, Both, Laan and Schultz (2010) noted that women presenting with low desire had, on average, three times as many depressive episodes in their past compared with women reporting no desire complaints. A more recent within-subjects experiment induced happy and sad mood states in women to gauge responses to erotic material (ter Kuile, Both, & van Uden, 2010). While mood did not have a significant effect on genital arousal, sad mood was associated with significantly lower levels of subjective sexual arousal. Graham et al.'s (2004) survey of women illustrated a meaningful but complex relationship between mood and sexuality, with reports showing mood to potentially inhibit or elevate sexual interest and arousal. Lykins, Janssen and Graham (2006)

empirically demonstrated this duality with the majority of women surveyed displaying decrements in sexual interest associated with depression or anxiety. Importantly, the association between negative mood and inhibited desire was more pronounced for women relative to men. While only a minority of both male and female participants experienced elevations in desire associated with negative mood states, the tendency was more common among men than women. In other words, negative moods were more likely to lead to sexual desire in men than in women.

There appears to be variability in the impact of mood on men's sexual response as evidenced by other studies which show inconsistent results. Meisler and Carey (1991) found negative mood delaying the elevation of men's subjective arousal, but having no effect on genital arousal; whereas, Mitchell, DiBartolo, Brown and Barlow (1998) reported negative mood, albeit manipulated in a different fashion, to have no effect on men's subjective arousal while impeding genital arousal. In another gender comparison study, Beck and Bozman (1995) induced anger and anxiety in participants while viewing erotic material. Women consistently evidenced lower desire across both emotional conditions. Further, women were more sensitive to the difference between emotional states, such that anger was a greater desire inhibitor than anxiety. While mood appears to influence sexual desire and arousal in both men and women, the effect seems more pronounced and reliable in women, such that positive and negative moods are more powerful mediators of sexual desire for women.

Meana (2010) described a notable gender difference between women's responses in Graham et al. (2004) and men's disclosures in Janssen, McBride, Yarber, Hill, and Butlers' (2008) parallel focus group study. Men cited both their mood and their partner's

mood as significant factors related to their arousal; whereas, women's responses focused primarily on their own mood without reference to that of their partners.

**Self-esteem.** Research supports an association between low self-esteem and low sexual desire in women (Both et al., 2006). Qualitative responses by women in Graham et al.'s (2004) survey lend support to these findings, with women citing positive selfimage as a facilitator of arousal. A recent study exploring sexual desire and aging identified positive sexual self-esteem as a meaningful predictor of desire in both men and women (Kontula & Haavio-Mannila, 2009). Another study investigating sexuality in adults and older adults characterized those with hypoactive sexual desire as having a fragile self-system characterized by diminished self-esteem, elevated anxiety, introversion, unfavorable body image, somatization and a tendency to harbor feelings of guilt (Hartmann, Philippsohn, Heiser, & Ru ffer-Hesse, 2004). An investigation of women with and without low sexual desire found a vulnerable sense of self common among women with desire difficulties (Hartmann et al., 2002). In a study of women without sexual dysfunction, both depressed and nondepressed participants were asked to adopt a positive or negative self-schema immediately before viewing erotica. Results showed a direct relationship between positive self-schema and subjective sexual arousal with an opposite trend occurring with the adoption of the negative self-schema (Kuffel & Heiman, 2006). Additionally, research focused on women with hypoactive sexual desire highlights a negative relationship between self-esteem and sexual excitability (Hurlbert et al., 2005).

There is an apparent dearth of empirical research examining the relationship between self-esteem and sexual desire in men. Based on existing research, we cannot thus assert that self-esteem is more central to female sexual function than to male sexual function, although it might be. What we do know is that it seems to be an important mediator of sexual well-being in women.

**Sexual fantasy.** Although relational themes are prominent in the content of women's sexual fantasies, especially compared to men (Ellis & Symons, 1990; Leitenberg & Henning, 1995; Meana, 2010; Zurbriggen & Yost, 2004), there is strong evidence for the existence of decidedly non-relational content in women's fantasies. Three non-relational themes frequently found in women's accounts of their sexual fantasies are 1) a focus on their own pleasure rather than their partner's, 2) a focus on their own desirability, and 3) submission (rape) fantasies.

Zurbriggen and Yost (2004) explored the themes of desire and pleasure in men's and women's fantasies. They found men's fantasies focused on the pleasure and desire of both themselves and their partners. In contrast, women's fantasies concentrated primarily on their own arousal and pleasure, with little to no mention of the partner's experience. Ellis and Symons (1990) noted a similar distinction in their finding that visual images and characteristics of the partner were more central to men's fantasies (a finding also supported by Janssen et al. in 2008); whereas, women's fantasies were more concerned with their own physical and emotional responses. Even when women's fantasies do focus on the partner, the partner appears to be important only insofar as they reflect how desirable the woman is (Ellis & Symons, 1990; Meana, 2010). Leitenberg and Henning (1995) succinctly capture this tendency in stating that, "the man focuses on the woman's body, whereas the woman focuses on the man's interest in her body" (p. 481). Being the object of desire may be the most frequent content theme in women's fantasies (Ellis &

Symons, 1990; Graham et al., 2004; Meana, 2010). As imagined objects of desire, it makes sense that women routinely assume a passive role in their fantasies as recipients of sexual acts and pleasure. This is in contrast to men who tend to be the performers in their fantasies, actively providing pleasure to another (Leitenberg & Henning, 1995).

Perhaps the most flagrantly non-relational theme in women's fantasies is the very common submission (rape) theme. Strassberg and Lockerd (1998) reported that over half of a sample of college women acknowledged having a forced sex fantasy. A multigenerational study of Danish women revealed rape/forced sex to be a common fantasy theme (Lunde et al., 1991). Additionally, half of the women in a study by Hariton and Singer (1974) reported fantasizing about forced sex while having intercourse. A recent study of rape fantasies among college-age women found 62% of participants having had a rape fantasy on an average frequency of four times per year, with over 90% of those reporting rape fantasies as erotic (Bivona & Critelli, 2009). A more recent study of undergraduate women explored rape fantasy content in more detail and cited 32% of participants reporting a "raped by a man fantasy," and 52% endorsing fantasy content that included "forced sex by a man." (Bivona, Critelli, & Clark, 2012)

Coercive sex is hardly relational. It also positions the woman as the passive recipient of a sexual act. In their empirical investigation of explanations for women's rape fantasies, Bivona, Critelli and Clark (2012) found moderate support for the contention that the erotic value of rape fantasies hinges on their assertion of the woman's desirability. The perpetrator in these fantasies is overcome with desire for the irresistible woman. This explanation aligns well with the common desirability theme in women's overall fantasies. However, the explanation that received the strongest support in this

study was openness to sexual experience. Women who were higher in erotophilia, openness to fantasy, desirability fantasies, and self-esteem reported greater sexual arousal to rape fantasies. In other words, women who were more sexually liberal and felt good about themselves were more likely to have submission or rape fantasies.

The research thus provides evidence for the significance of non-relational elements in women's sexual desire/subjective arousal. The importance of individual well-being variables (mood, self-esteem, body image) to sexual desire and the content of much female sexual fantasy may even suggest that female sexual desire relies more on self than on other. This notion of self-directed attention in a sexual context is complex. Self-directed attention may be focused on a particular aspect of self or experience; it may be intentional or incidental; it may vary from moment to moment; it may be positive or it may be negative. Although research on self-focus in regards to sex dates back to Masters and Johnson, we are far from understanding the phenomenon.

#### The Issue of Self-focus and Sex

Self-focus during sex. The notion of self-focus as it relates to sexual response was brought to light in 1970 by Masters and Johnson with the concepts of spectatoring and the intervention they termed "sensate focus." Spectatoring, as intended by Masters and Johnson, refers to focusing on oneself during sexual activity from a third-party point of view – being a spectator watching oneself performing sexually. The defining feature of spectatoring is evaluative, with a focus on the quality of one's appearance and performance during the sexual act. The genesis of this concept was rooted in clinical explorations of erectile dysfunction, wherein men's monitoring of sexual performance and erection strength served to inhibit and interfere with their sexual function. In theory,

focusing on one's own performance and appearance generates anxiety, which in turn redirects one's attention away from erotic cues and onto concerns about achievement and self-presentation that ultimately inhibit sexual response. Further, the consequent negative effect may fuel repetition of this cycle in subsequent sexual episodes (Barlow, 1986; Meston, 2006; Palace, 1999; Wiederman, 2001). This process is particularly meaningful when there is concern over performance or appearance, such as past dysfunction or unfavorable self-image, respectively.

Because spectatoring was conceptualized in the context of sexual dysfunction, the term holds a negative connotation, with cognitive distraction away from erotic elements having deleterious effects on sexual desire and arousal. Meana and Nunnink (2006) highlighted the existence of evaluative self-focus during sex in both men and women, with women reporting significantly more overall spectatoring than men. Wiederman (2000) reported that as much as one third of a college-age sample of women acknowledged appearance based distraction during sexual activity. Van Lankveld, van den Hout and Schouten (2004) found that under a performance demand condition, the genital arousal of both sexually functional and dysfunctional men was inhibited. In women, greater appearance and performance-based cognitive distraction during sex was related to lower sexual satisfaction and less consistent orgasms (Dove & Wiederman; 2000). An unpublished dissertation by Selke (2004) also found an association between spectatoring and reports of lower sexual desire and arousal in women.

While spectatoring has long been considered an impediment to sexual function, early conceptualizations of it assumed that the valence of spectatoring was negative.

What if one was spectatoring and evaluating oneself positively? The research on this

question is mixed, but there is evidence supporting the notion that positive spectatoring may have no effect on arousal, and in some cases, may actually enhance sexual response.

In two separate investigations of men's arousal under a performance demand, results indicated that spectatoring was associated with negative effects for sexually dysfunctional men while actually enhancing arousal in sexually functional men (Abrahamson, Barlow, & Abrahamson, 1989; Heiman & Rowland, 1983). Assuming that the nature of the self-focus will be different for men struggling with performance versus those functioning effectively, the valence of the focus may be more important than the fact that there is a focus on self. Trapnell, Meston and Gorzalka (1997) found support for the significance of valence in spectatoring for women. They showed self-directed attention to be associated with positive body image; a finding that runs counter to the Masters and Johnson's notion of appearance-based spectatoring as inherently negative. Trapnell et al. also noted the relationship between body image and sexual experience to be mediated by the favorability of one's self-evaluation, as opposed to mere self-focus. Further, subjective reports of women who claim positive self-evaluation as a facilitator of arousal also lend support to the mediating role of self-valence in spectatoring (Graham et al., 2004). In other words, self-consciousness can kill sexual arousal if one deems oneself deficient but it can enhance arousal if one has a positive self-perception.

It is paradoxical that while Masters and Johnson (1970) in part blamed spectatoring for inhibited sexual functioning, they promoted sensate focus as an intervention for sexual difficulties. Sensate focus consists of attending to the pleasurable feelings and sensations one is experiencing – while shutting out the partner's needs or feelings. It demands self-focus. Sensate focus has been considered moderately effective

in treating men's erectile dysfunction (Rowland, 2012). Meston (2006) cites multiple treatment outcome studies highlighting the benefits of sensate focus in the treatment of desire and arousal problems in women. In a study of over 900 women, the practice of mentally focusing on vaginal sensations during intercourse was a significant predictor of orgasm consistency (Brody & Weiss, 2010). While sensate focus is often considered a couple's intervention, the self-focus aspect of the practice truly makes it more of an individual endeavor.

The issue of self-focus and its role and effects during sex have been only intermittently investigated and there is much variance in its operationalization. Most of this research incorporates an induced state of self-focus in an erotic context and also examines the role of self-focus as a persistent individual trait. Two studies attempted to induce a state of self-focus by pointing a video camera at participants as they viewed an erotic video. For men with and without sexual dysfunction, the self-focus manipulation had no impact on genital arousal (Van Lankveld, van den Hout, & Schouten, 2004). In an analogous study of sexually functional women using the same camera manipulation, similar results were found (van Lankveld & Bergh, 2008). State self-focus alone affected neither genital nor subjective responses. Meston (2006) conducted a similar study with women by manipulating self-focus through the use of a partially reflective glass panel. Participants in the self-focus condition watched an erotic video through the glass which enabled them to see both the video stimulus and a reflection of themselves. The selffocus manipulation yielded no significant differences in subjective arousal. However, those in the self-focus condition exhibited lower levels of genital arousal. In a study of the women with sexual dysfunction, Seal and Meston (2007) exposed participants to

audio erotica while inducing body awareness via a body focused task in front of a full-length mirror. Relative to controls, participants in the body awareness condition registered higher subjective arousal to the erotica. While variability in findings may be attributable to the method used to manipulate self-focus, the research suggests that the mere act of generic self-focus alone does not account for differences in arousal.

Research on trait self-focus lends support to the significance of valence. For example, the Van Lankveld et al. (2004) study found that men high in trait self-consciousness displayed inhibited genital response under the self-focus condition; whereas, the opposite trend was true for men low in trait self-consciousness. For women, Van Lankveld et al. (2008) found that women with high trait self-consciousness experienced smaller genital responses under the self-focus condition.

Another study attempted to more explicitly operationalize self-focus by considering self-directed sexual attention relative to attention paid to other factors such as context or one's partner. In 1983, Beck, Barlow and Sakeim, investigated the effects of attentional focus on genital and subjective arousal in a small sample of sexually functional and dysfunctional men. The authors operationalized attentional focus on two levels: focusing on oneself or focusing on one's partner. While the actual experiment, examining men's arousal levels as a function of their attentional focus and their partners displayed level of sexual arousal yielded inconclusive results, an intriguing finding emerged from post session interviews. Sexually functional men reported habitually focusing on their partners during sexual activity. This is in stark contrast to participants with sexual dysfunction whose reports did not show any consistent trend of attentional focus during sexual interactions. These responses suggest that greater function and

arousal in men is associated with a focus on their partners during sex. To date, there appears to be no research directly examining the role of self versus partner focus in women's sexual arousal. At present, the only insight into how women might differentially respond to focusing on themselves versus their partners can be gleaned from existing interpretations on how women experience erotica.

**Attentional focus, observational stance and erotica.** Money and Ehrhardt (1972) and Symons (1987) proposed very similar hypotheses of how women engage erotica relative to men. They argued that men view women in erotic material as sexual objects who they seek to extract from the scene and have sex with. In contrast, women identify themselves with the woman in the scene as a sexual object to whom men respond. Simply stated, men objectify their erotic target, while women identify with being the object of desire. While the soundness of this interpretation has been the subject of debate, indirect research findings support these hypotheses. In a study on sexual arousal patterns, Heiman (1977) found men and women to be most aroused by an erotic audio stimulus focused on the woman's experience. The fact that both men and women found a female centered erotic stimulus most arousing is notable, as it is compatible with objectification and identification on the part of the men and women respectively. Another study by Laan, Everaerd, van Bellen and Hanewald (1994) found women preferring erotic videos that focused on the experience of the woman over those focused on the man. Even in depictions of solo sexual activity, both men and women became aroused by a video of a woman masturbating (Abramson & Mosher, 1979). When men and women composed fantasies based upon these videos, the women appeared to identify with the women in the film in a way that promoted arousal; whereas, the men did not

seem to form an arousing identification with a masturbating man (Mosher & Abramson, 1977).

Whether a man is objectifying an erotic target by imagining himself having sex with her, or a woman is envisioning herself into the role of the woman actor as an irresistible object, both approaches involve the projection of oneself into the scene as participants in the erotica. Relating this back to the issue of self versus other focus, it appears that the maximally arousing situation for a man is projecting himself into the scene with a focus on his object of desire as he copulates with her; whereas, a woman appears to find the arousal value in projecting herself into the scene while focusing on herself as the object of desire during the encounter. Thus, when injecting oneself into erotica for sexual gratification, it seems men's arousal is facilitated by a focus on the other, while women's arousal is fostered by focus on the self.

Erotic stimuli, however, are not always engaged with projection of the self into the scene. The consumption of erotic material can also be viewed from a purely third-party stance. Several studies have examined arousal as it relates to engaging erotica from a participant versus observer standpoint. Koukounas and Over (2001) instructed a sample of men to embrace a particular observational stance as they viewed films depicting heterosexual intercourse. Men registered higher genital and subjective arousal when taking the participant stance, even when viewing the exact same video from both the observational and participant perspectives. Sheen and Koukounas (2009) employed a similar methodology with women and also found greater subjective arousal associated with adopting a participant stance. Other studies first presented an erotic stimulus and then asked participants which stance they had adopted during the exposure. The gender

comparisons in these studies yielded conflicting results. Janssen, Carpenter and Graham (2003) found elevations in men's subjective arousal associated with both a participant and observer stance, although the participant stance yielded greater arousal. In women, only the participant stance correlated significantly with arousal. A more recent study (Bossio, Spape, Lykins, & Chivers, 2013) found women's subjective arousal associated with both an observer and participant stance, while men's subjective arousal related only to a participant stance.

There seems to be a consistent trend in imagining oneself as a participant in a given erotic situation as more reliably arousing than imagining oneself as an observer. However, the mixed results when an observer stance is taken are curious. When considering the participant perspective, theory and research provide a potential framework for the processes at play, such that men are objectifying and women are identifying. The mere adoption of an observer perspective reveals very little without an understanding of where the observer's attention is focused, which in turn reveals where the erotic value of the experience lies.

Eye tracking studies with erotic stimuli provide insight into where observers focus their visual attention. While there are variations in the aims and methodological approaches of these eye tracking studies, a common theme emerges among them. When viewing sexual scenes, heterosexual men focus predominantly on the woman in the scene; whereas, women focus their attention on both the man and woman (Lykins, Meana, & Strauss, 2008; Rupp & Wallen, 2008). In one study, women actually spent more time focused on the woman actor as opposed to the man (Rupp & Wallen, 2007). In these eye tracking studies, there is no way to decipher if participants are cognitively

processing the stimuli by projecting themselves into the scene, or are processing the stimuli purely as observers. For a heterosexual man, a focus on the woman (the preferred erotic target) makes logical sense from both an observer or participant perspective, such that he is aroused by the mere sexual portrayal of the woman or by imagining himself having sex with her. For a heterosexual woman, potential explanations for her visual attention pattern are more elusive. If a woman were taking a purely spectator stance, attending to the man appears to fit a focus on her erotic preference. Yet women in these studies attend almost as much to the woman in the image. What might account for this visual attention to the supposedly non-preferred erotic target? Are women identifying with the female image in the erotic scene? Are they engaging in social comparison? Or are there fundamental differences in how men and women cognitively process erotic (and other) stimuli? If women are adopting a participant stance, the significant amount of attention paid to the female image could be explained by her identifying with the woman and projecting herself into the scene. At this point, we do not know the answers to these questions.

What we do know is that heterosexual women appear to pay almost as much visual attention to women as they do to men in erotic scenes. This is an intriguing finding that raises the question of the extent to which women have arousal value to other women, even within a heterosexual context. If research ends up confirming that this is the case, other questions will arise. Are heterosexual women aroused by other women because they live in a world in which women have been so pervasively and consistently cast in the role of sexual object that they have become that, even to other heterosexual women? Or, are heterosexual women so focused on making themselves the object of

desire (for social or evolutionary reasons) that they have developed a type of erotic relationship with themselves and other women? These are complex questions not easily answered by any one study but they point us in interesting future research directions.

They also point to existing constructs not usually associated with female sexuality.

Autogynephilia. Autogynephilia, a construct conceptualized and elaborated by Blanchard (1989a, 1989b, 2005) may prove helpful to the investigation of these questions about the arousal value that women may have for women who are heterosexually identified. Autogynephilia refers to erotic arousal from the "thought or image of oneself as a woman". It is generally used to describe the experience of a sub-type of male-to-female transsexuals who are not sexually attracted to men but rather who are sexually aroused by the notion of themselves as women. As they become women they become their own erotic objects. Although autogynephilia is considered a paraphilia associated with male-to-female transsexuality, the construct may have some applicability to heterosexual women.

Using a small convenience sample of women and an autogynephilia scale he adapted from two of Blanchard's measures, Moser (2009) found that 93% of women participants endorsed at least one autogynephilic tendency and nearly a third of the women acknowledged frequent arousal to multiple autogynephilia items. Lawrence (2010) criticized Moser's findings, essentially claiming that Moser missed the core paraphilic element of the construct: intense sexual excitement almost exclusively to the thought of being a woman. However, she acknowledged the possibility that he tapped into something "resembling" autogynephilia in women. Although there is no evidence of heterosexual women experiencing intense sexual arousal as a mere function of

experiencing their own womanhood, it may not be that far-fetched to posit that heterosexual women's arousal is at least in part contingent on their own feelings of self-desirability and by extension on the desirability of other women present in sexual stimuli.

The notion that women can be aroused by thoughts, images or appraisals of themselves seems quite plausible in light of current research. Whether women are aroused by their own femininity, an appraisal of themselves as sexy and desirable, an image or reflection of themselves naked, or any number of self-centered elements, is unknown and presumptuous considering the present limited understanding of autoeroticism in women. This study marks the first deliberate attempt to empirically confirm the mere existence of erotic self-focus in women.

## **Chapter 3: Aims of the Study**

In many ways, the notion that women may glean erotic value through self-directed attention runs counter to the widely held perception that women's sexual arousal is anchored in relationship dynamics and primarily dependent upon the connection with a partner. However, as the literature review attests, there is evidence suggesting that female erotic self-focus (ESF) may be a significant source of sexual arousal for women, comparable perhaps to the arousal value of partners. The hypothesized construct of female ESF is a difficult one to measure. After investigating ways of doing this experimentally, I decided that such designs were premature considering that I do not have any evidence that the very construct would even be endorsed by women or by men reflecting on women. I thus settled on a more exploratory, self-report approach to the question as a first step in ascertaining whether this construct is recognizable to men and women.

The primary aim of the study is thus to investigate the endorsement of erotic selffocus or autoeroticism in men and women, as assessed with two new measures developed for that purpose. As this construct does not exist in the literature, other than indirectly, this project is exploratory and seeks to ascertain whether men and women endorse its existence, in themselves and in each other, as defined in our measure.

I asked participants of both genders, implicitly and explicitly, about their experiences and perceptions with regard to autoeroticism. Based upon the presented theoretical perspective, I expected women would endorse a greater tendency to harbor cognitions and participate in behaviors in which desire and arousal are associated with self-directed focus. Additionally, it seems plausible that the perceptions of both men and

women would be consistent with the presence of autoerotic tendencies in women, especially when compared with men. Thus, the primary intent was to employ measures designed specifically to tap this construct in an attempt to expose the existence of this phenomenon.

Specifically, our investigation focused on particular areas where autoeroticism may manifest. These included sexual fantasy, preparing for sex, experiences during sexual activity and gender identification. Additionally, I examined participants' perspectives on certain scenarios where the ESF tendencies may be prominent, such as how one might visually engage a video of themselves having sex. A result in which women report an inclination to attend to themselves in the proposed video would infer the expression of ESF, especially if men endorse a partner focused visual preference.

Finally, I explicitly presented the construct of a gender differential in the ESF and evaluated participants' explicit endorsement of the construct. The study did not attempt to investigate the source of female ESF, which may be rooted in cultural constructions of women as objects of desire, in evolutionary pressures for women to enhance their sexual desirability, or in some combination of both.

Investigating the presence and prevalence of ESF in women holds theoretical and practical significance. While erotic preferences certainly differ at the individual level, identifying erotic themes common to segments of the population elucidate our understanding of the human sexual response and provide leverage in addressing sexual difficulties. At the most basic level, consider the significance of one's sexual orientation in understanding sexual cognitions and behavior. On a smaller scale, the previously referenced typology of autogynephilia in a segment of male to female transsexuals

provides insight into men who seek to experience life as women such that they find erotic value in the idea of themselves as women. If results were to identify the existence of an erotic theme shared by some segment of the female population, it will serve to promote enhanced understanding of women's sexuality, specifically in the areas of desire and arousal. In the clinical realm, recognition for the role of ESF may inform treatment for women and couples experiencing challenges with sexual desire and arousal. When a woman in a relationship presents with sexual desire difficulties, the clinical course of action typically targets the relationship as the source of the issue. While the relationship is certainly a key element, it may be less essential to the core of a woman's erotic self that fuels her sexual desire. It may be that individual treatment focused on internal factors, not directly rooted in the relationship, holds clinical efficacy above and beyond the benefit of relational interventions.

# **Chapter 4: Method**

# **Participants**

A total of 445 surveys were completed; however, analyses were conducted on the responses of 196 men and 193 women. Three women responded to the survey twice, so their second submissions were not analyzed. Despite explicit instructions, two women attempted to complete the male survey battery and 34 men attempted to complete the female survey battery, thus their response sets were not evaluated. The response set from an 82-year-old woman was not considered, as her age fell well above 3.5 standard deviations from the calculated mean age. Considering the sexual nature of the study and the more nuanced, complex sexual subject matter, I initially sought participants who were at least 21 years of age. Seven men between the ages of 18 and 21 completed the male survey battery (one 18-year-old man, two 19-year-old men, and four 20-year-old men). Upon reconsideration, data from these seven men were included in the final analysis, as there was no reason to believe that the responses from the seven men would be meaningfully different from that of other respondents. Further, inclusion of their data did not significantly impact the statistical results. Additional inclusion criteria consisted of residing in the United States, fluency in the English language and identifying as predominantly heterosexual. All respondents claimed fluency in the English language and completed the survey battery from a computer based in the United States. Data from two men and 14 women were excluded because they identified as more than incidentally homosexual. Based upon calculations, the final sample size of 196 men and 193 women provided adequate statistical power for each conducted analysis, projecting a power of .80 and estimating a medium effect size (.25) at the .05 level of significance.

Table 1 depicts the sociodemographic characteristics of male and female respondents. The mean age of the sample was 31.78 years, with a standard deviation of 9.74. Respondents were predominantly Caucasian (80.98%), with African-American, Hispanic and Asian participants each accounting for approximately 4-6% of the final sample. The education level of respondents was generally high, with 85% of participants reporting educational experience beyond high school. Over 50% were either married or cohabiting and the vast majority (97%) were either currently sexually active or had been in the past. A large percentage of participants (almost 50%) reported no religious affiliation.

An independent samples t-test demonstrated no statistically significant difference between men and women participants with regard to age. Chi-square analyses showed no significant differences between sexes in linguistic fluency, level of education, employment status, approximate annual household income, marital status, present level of sexual activity and religious affiliation. Compared to the sample of men, there was a significantly larger proportion of women who identified as incidentally homosexual,  $X^2(1, N = 389) = 5.52, p = .019$ , however this is a normative sex difference (Baumeister, 2000, 2004; Chandra, Mosher, Copen, & Sionean, 2011; Gangestad, Bailey, & Martin, 2000; McElwain, Grimes, & McVicker, 2009). Additionally, there was no sex difference in the time participants took to complete the survey.

#### Measures

Data was collected using the following measures listed below in order of presentation within the survey battery.

**Erotic Self-Focus Measures.** These measures consist of two new questionnaires developed specifically for this study. Each questionnaire was developed using the rational method of measure construction by members of the Human Sexuality Research Laboratory at UNLV, all of whom are sexuality researchers.

Erotic Self-Focus Experiences Questionnaire (ESFEX; Appendix B). This questionnaire consists of 48 items, accompanied by 7-point Likert scales on continua of agreement or frequency. The measure inquires about participants' own thoughts and behaviors associated with the construct of ESF. Questions focus on sexual fantasies, the erotic value in self-focused preparation for sex, self-focus during sexual activity as a facilitator of arousal, erotic quality associated with femininity or masculinity, and some exploratory questions about self-focus and self-desirability.

Responses on the ESFEX yield a total score and six scale scores gauging selffocus in the following domains: sexual fantasy (16 items), preparing/getting in the mood
for sex (9 items), sexual activity (11 items), self-gender eroticization (3 items),
hypothetical sexual scenarios (4 items), and hypothetical scenarios in the context of a
strip club (3 items). Items are coded such that higher scores on individual questions,
scale scores, and total score indicate greater individual tendency toward ESF. For
example, the item, "During sex I focus my attention on my partner in order to elevate or
maintain my arousal," is reverse coded, or negatively keyed, for all participants because
greater endorsement of the statement would indicate partner focus, as opposed to selffocus. An item such as, "How arousing do I find male sexual vocalizations? (e.g., sounds
a man makes when having sex)," is positively keyed for men and negatively keyed for
women, such that greater endorsement of arousal for men indicates apparent non-

homosexual erotic value associated with one's own biological sex; whereas, greater endorsement of arousal for women represents erotic value associated with the opposite sex. In light of the presented scoring system, the following two questions were not included in the data analysis because they did not allow clear measurement of the construct such that higher scores did not indicate greater self-focus: Fantasy Scale question, "I alternate gaze between the man and the woman in my sexual fantasies," and the Hypothetical Strip Club Scenarios Scale question assessing arousal value of watching men and women strip together.

Erotic Self-Focus Construct Endorsement Questionnaire (ESFCE; Appendix C). This questionnaire consists of 15 items, accompanied by 7 point Likert scales that gauge participants' belief in ESF as a factor in the arousal of men and women. Items on the ESFCE consist exclusively of positively keyed questions asking participants to endorse the extent to which ESF tendencies are generally characteristic of each particular sex. Responses contribute to one of two score totals: Erotic Self-Focus in Women Construct Endorsement Score and Erotic Self-Focus in Men Construct Endorsement Score. Sex specific items comprise the corresponding scores, such that higher scores indicate greater endorsement of ESF in a particular sex.

**Demographic questionnaire (Appendix D).** This questionnaire collected information relevant to the study inclusion criteria and includes the Kinsey Heterosexual-Homosexual Rating Scale (Kinsey, Pomeroy, & Martin, 1948), a seven point Likert item gauging endorsement of sexual orientation. The demographic questionnaire also surveyed additional demographic variables of interest including education level,

employment status, income, ethnicity, relationship status, current level of sexual activity and religious affiliation.

Rosenberg Self-esteem Scale (SES; Rosenberg, 1989; Appendix E). To evaluate potential associations between ESF and self-esteem, participants were administered the SES, a 10-item measure gauging responses on a four-point Likert scale focused on positive and negative feelings about the self in the present moment. The SES is one of the most widely used measures of self-esteem and is generally considered a valid and reliable instrument (Sinclair, Blais, Gansler, Sandberg, Bistis, & LoCicero, 2010). For the current sample, the internal consistency of the SES, as measured by Cronbach's alpha (α), was .94.

Body Esteem Scale (BES; Franzoi & Shields, 1984; Appendix F). To evaluate the extent to which ESF tendencies are related body image factors, participants completed the BES, a 35 item, 5-point Likert-type self-report scale assessing feelings about body appearance and function. The BES contains three factors for women (sexual attractiveness, weight concern, physical condition) and men (physical attractiveness, upper body strength, physical condition). The BES appears to be valid (Franzoi & Herzog, 1986), reliable (Franzoi, 1994) and factorially sound (Franzoi & Shields, 1984). The BES is a commonly used body image measure for men and women in the body image literature (e.g., Baillie & Copeland, 2013; Haas, Pawlow, Pettibone, & Segrist, 2012; Jung, Forbes, & Chan, 2010; Kaminski & Magee, 2013) and sexuality literature (e.g., Meltzer & McNulty, 2010; Pujols, Meston, & Seal, 2010; Seal, Bradford, & Meston, 2009; Seal & Meston, 2007). The reliability of this measure for the current sample was good (α = .95).

## Female Sexual Function Index (FSFI; Rosen et al, 2000; Appendix G).

Women completed this 19-item questionnaire comprised of six subscales including desire, subjective sexual arousal, lubrication, orgasm, satisfaction and pain. The FSFI has been shown to have high reliability, high internal consistency and adequate discriminant validity among difficulties with desire, arousal and orgasm (Meston, 2003; Rosen et al., 2000). For the present sample of women,  $\alpha = .94$ .

International Index of Erectile Function (IIEF; Rosen et al, 1997; Appendix H). Men completed the IIEF, a 15-item scale consisting of five subscales, including erectile function, orgasmic function, sexual desire, satisfaction with intercourse, and overall sexual satisfaction. Varying by subscale, the IIEF has been found to have satisfactory to high internal consistency, moderate to high reliability, and adequate discriminant validity for sexual dysfunction (Rosen et al., 1997). The internal consistency of the IIEF for the current sample of men was .91.

#### Procedure

Recruitment. Participants were recruited online through Amazon's Mechanical Turk (MTurk), "a crowdsourcing web service that coordinates the supply and demand of tasks that require human intelligence to complete" (Paolacci, Chandler, & Ipeirotis, 2010, p.411). The Amazon company (the group behind the website Amazon.com) created MTurk in 2005 as an online labor market designed primarily to facilitate work relationships for the completion of labor-intensive administrative tasks, such as cleaning data. The system operates as an online community where entities in need of labor, called requesters, post task advertisements, called human intelligence tasks or HITs, to a database where anonymous registered individuals, called workers, offer their services to

complete a task. Upon satisfactory completion of a task, workers are compensated at a nominal rate as per the advertised amount for the particular task. As the online MTurk marketplace evolved, so did the nature of requested tasks, with businesses increasingly utilizing MTurk labor for market research surveying. Given the growing trend of online research participation, it was not long before academic researchers in the social sciences began to see MTurk is an enticing alternative to university-based subject pools. In an attempt to escape the homogeneity of college samples and increase the speed of data collection, the use of MTurk for academic research has expanded in recent years. As a result, there is now a rapidly growing body of research evaluating the efficacy of MTurk samples and comparing MTurk data collection to traditional methods. The literature shows overwhelming support for the viability of MTurk use in psychological research.

Research directly comparing MTurk to laboratory-based data collection shows little difference in statistical outcomes and data quality between the two methods (Paolacci et al., 2010). In addition to outlining existing research illustrating comparability between MTurk and subject pool data, Paolacci et al. conducted a study in which results of three established tasks evaluating classic biases and heuristics were administered through MTurk, a university subject pool and an Internet message board. The results showed no significant statistical differences in data between collection methods. Sprouse (2011) compared the results of a judgment experiment between 176 laboratory participants and an identical number of MTurk recruits with a focus on data quality in the form of statistical power, rejection rates and response distribution characteristics. Other than a negligibly higher participant data rejection rate among MTurk subjects, the data from the two sources were nearly "indistinguishable."

Additional statistical comparison analyses show data obtained from MTurk to have strong reliability (Holden, Dennie, & Hicks, 2013), and in some cases, greater reliability than traditional data collection methods (Buhrmester, Kwang, & Gosling, 2011). Goodman, Cryder and Cheema (2013) performed two experiments, the first of which compared MTurk participants with a community sample on measures of demographics, personality, cognitive activity, linguistics and judgment. A similar second experiment evaluated MTurk participants responses with those from a university subject pool. Results showed the MTurk data to be reliable and characteristically comparable to both the data obtained through traditional methods and with established measurement norms. Additional research shows strong alignment between data obtained via MTurk and previously established measurement norms in the areas of decision-making (Amir, Rand, & Kobi Gal, 2012) and body image (Gardner, Brown, & Boice, 2012). MTurk has been employed in studies across various academic topics including culture, risk behavior, gender, motivation and decision-making; with all results deeming MTurk a valid means of data collection (Mason & Suri, 2012).

While Goodman et al. (2013) found comparable data quality across collection methods, their experiments showed MTurk participants as paying less attention to experimental materials, more introverted and having lower self-esteem than other participants. In a similar investigation, Johnson and Borden (2012) compared measures of attention and empathy between an MTurk sample and responses obtained in-person at a university laboratory. Data from the two sources did not differ with regard to reliability. The samples were comparable in ethnicity and gender, with MTurk participants being an average of 10 years older and evidencing higher scores on measures

of trait empathy and greater investment in the experimental stimuli. Buhrmester et al. (2011) found MTurk recruits to be equally as diverse as community samples and even more diverse than university student samples. As the demographic makeup of the MTurk population evolved since inception, transitioning from a sample pool comprised of predominantly American workers to a more international collective, Paolacci et al. (2010) evaluated this shift by surveying the demographics of 1000 MTurk workers. They found nearly half were from the United States with just over a third of all workers residing in India. Of the American users, 65% were women and the average age was 36 years old. The US participants possessed an education level higher than the general population; however, they reported lower than average income. The majority of MTurk workers cited money and personal entertainment as their main motivations for participation, and reported MTurk as a supplementary source of income. Overall, Paolacci et al. (2010) deemed MTurk users more representative of the US population at large versus university-based subject pools.

A diverse population from which to sample is not the only advantage of utilizing MTurk. Mason and Suri (2012) cite financial advantages to using MTurk. Even though participants are being paid, Mason and Suri argue the total cost being lower than recruitment expenses and operational costs associated with laboratory experiments using unpaid participants. Compensation for participation on MTurk is generally small. The existing academic literature on MTurk cites differing figures. Sprouse (2011) describes a typical MTurk task paying \$0.02 with other studies estimating hourly compensation ranging from \$1.38 to \$4.80 (Gardner, Brown, & Boice, 2012; Mason & Suri, 2012). Consultation with research psychologists presently using MTurk and a review of

available tasks on the MTurk site suggests an hourly rate of \$1 to be noticeably generous and enticing to participants. Buhrmester et al. (2011) offered participants \$0.02 for a half hour survey and attracted five participants per hour. When elevating the compensation to \$0.50 the rate rose to 12 respondents per hour. In fact, Buhrmester et al. found no difference in data quality across compensation level with the only difference being speed of collection. The well established and reliable payment infrastructure, using the Amazon.com web interface, also makes MTurk efficient and user-friendly (Mason & Suri, 2012; Paolacci et al., 2010). The efficiency of the system combined with over 500,000 potential participants motivated by available financial compensation, results in rapid data collection speeds, as described above (Gardner, Brown, & Boice, 2012). Paolacci et al. (2010) collected data from 1000 US MTurk workers in just three weeks. Other benefits of MTurk include participant anonymity and ability to qualify respondents (Paolacci et al.). While self-reported demographic information is available, the actual identity of MTurk workers is not provided. As a result, responses cannot be directly linked with participants. Confidentiality is further enhanced when linking users to external data collection interfaces such as Qualtrics: a practice which will be employed in the present study. MTurk also allows controls for participant characteristics, such as nationality, language and other demographic variables. While this precludes a truly random sample, the sample is no less random than that of a university subject pool.

Johnson and Borden (2012) outline vulnerabilities of using MTurk including the risk of participants rushing through survey measures or completing the same study multiple times. The use of the Qualtrics external survey interface in the present study allowed for greater protection against these risks. In fact, the combination use of MTurk

and Qualtrics enabled more secure experimental controls than traditional collection methods. For example, because MTurk users must register payment information, it is more difficult to create multiple accounts needed to double dip in paid experimental tasks. Additionally, Qualtrics was able to gauge the amount of time a participant spent on a particular question or survey section, thus providing the means to evaluate attention and effort. As a result of implemented controls, I was able to identify three participants who attempted to complete the survey two times, as noted above. In addition, I was able to determine that men spent an average of 14.19 min. (SD = 8.76) completing the set of surveys, while women spent an average of 15.62 min. (SD = 8.20).

Survey battery administration. Participants responded to a task advertisement on the MTurk website. The advertisement included a brief overview of the task, the criteria for participation, a statement disclosing the sexual nature of the study and the compensation rate. I only accepted participants who had successfully completed at least one previous MTurk assignment and had an overall work acceptance rate of 90% or higher indicating that less than 10% of their past MTurk work had been rejected by the task requester for reasons such as incomplete data or haphazard responding. Two identical advertisements were posted: one that required 200 male respondents and another that required 200 female respondents (Appendix I). Because of the significant financial expenditure associated with paying participants, the dual posting approach intended to avoid a gross gender discrepancy in response data given funding allocation for approximately 400 total participants.

Participants who responded to the advertisement and met the MTurk profile qualifications were furnished with a link to the web-based survey (Appendix J). The

survey began with an online informed consent (Appendix K). The informed consent was followed by the series of measures. The automated survey tracked the time participants spent on each measure as a means of data quality control. Upon completion of the measures, participants were asked to provide their anonymous MTurk ID code while being assured that the code collection was for payment purposes and the prevention of duplicate submissions, and would not be associated with their survey responses. While the anonymous MTurk ID code is considered a non-identifiable information string, recent criticism has revealed that it is possible, through a deliberate web search, to discover the identity of participants based upon MTurk ID specifically for workers who link their MTurk account to their personal Amazon.com shopping account. In accordance with ethical standards, the present experiment made no attempt to pursue the actual identity of participants. Finally, participants were provided with a unique survey completion code to be entered into the MTurk system. Upon verification of the completion code, participants were electronically compensated \$1.00 for their participation. It was very conservatively estimated that the survey task would take participants approximately 30-60 minutes to complete. The study protocol was approved by the Institutional Review Board of the University of Nevada, Las Vegas.

### **Chapter 5: Results**

#### Overview

Two dedicated questionnaires were employed in the present investigation of erotic self-focus: The Erotic Self-Focus Experiences Questionnaire (ESFEX) and The Erotic Self-Focus Construct Endorsement Questionnaire (ESFCE). The experiences questionnaire served as the study's primary measure and gauged respondents' self-reported individual tendency toward ESF, with higher scores indicating greater inclination toward ESF. I utilized the construct endorsement questionnaire as a complementary measure of respondents' perception of the presence of ESF in men and women, in general.

The presentation of results will begin with an analysis of the psychometric properties of the primary measure, the ESFEX. I will then present data on the relationship between scores on the ESFEX and scores on construct discriminant measures of self-esteem and body esteem. This analysis will progress into presentation of data examining sex differences in individual experiences of ESF. Finally, I will present results of the ESFCE. Specifically, independent tests of significance will be presented comparing men's and women's endorsement of the theoretical construct of ESF in each biological sex. Additionally, results of dependent tests of significance are provided depicting the extent to which participants differentially believe ESF to characterize female sexuality, relative to male sexuality.

# **Erotic Self-Focus Experiences Questionnaire (ESFEX)**

I initially categorized the questions of the ESFEX into six theory-driven, face valid subscales. Each scale represents a particular domain in which the construct of ESF

was hypothesized to manifest. Because this is a new questionnaire investigating an unexplored construct, an examination of the psychometric properties of the measure was indicated, including an exploratory statistical analysis of the factor structure.

### **Psychometric properties.**

*Reliability and intercorrelations*. Overall mean scores on the ESFEX, including total and scale scores, are presented in Table 2. As a measure of internal consistency, Cronbach's Alphas were calculated for the total score and for each of the six categorical subscales of Fantasy, Preparation for Sex, Sex, Gender, Hypothetical Sexual Scenarios and Hypothetical Strip Club Scenarios (Table 3). For the entire ESFEX,  $\alpha = .89$ , indicating good internal consistency. With regard to the reliability of the categorical subscales, internal consistency ranged from unacceptable on the Hypothetical Strip Club Scenarios Scale; to poor on the Fantasy, Hypothetical Sexual Scenarios and Gender Scales; to good on the Sex Scale; to excellent on the Preparing for Sex Scale (For brevity, the Preparing for Sex Scale will be referred to as the Prep Scale going forward).

On the whole, there were significant moderate correlations among the scales of the ESFEX, as illustrated in the correlation matrix in Table 3. When calculated separately by biological sex, measures of internal consistency for each of the scales and intercorrelations between scale scores on the ESFEX were similar for men and women.

Principle component analysis (PCA) and exploratory factor analysis (EFA).

Because select items on the ESFEQ were coded differently based upon participant sex, the Principal Component Analysis and exploration of the questionnaire's factor structure were conducted separately for men and women. In both cases, I employed a multimethod approach in selecting the number of components to extract. Ultimately, the

number of extracted components was based upon the Minimum Average Partial test (MAP test; Velicer, 1976). The MAP test is considered a preferable method of determining the optimal number of components, or factors, to extract from a set of data. It is typically accurate to within one factor, and has no known tendency to generally overestimate, or underestimate, the true number of factors (Zwick & Velicer, 1986). Six factors were extracted from the men's responses and five from the women's responses. In each case, three orthogonal and five oblique rotations were considered, and the optimal rotation was selected based upon minimizing the number of items with salient coefficients on multiple factors, maximizing the number of coefficients with a value of .10 or lower, and maximizing the degree of correlation between the factors for oblique rotations.

For men, a Direct Oblimin rotation (Delta = -1) was selected. Table 4 presents the factor loadings and intercorrelations for the six extracted factors. Of the six factors, four were interpretable. These factors were qualified as self-focus, preparation for sex, sexual fantasy, and partner-focus. For women's responses, I chose a Promax rotation (Kappa = 3) for the five factors extracted. Table 5 depicts the factor loadings and factor intercorrelations. I classified the four interpretable factors as preparation for sex, self-focus, sexual fantasy, and partner-focus. The fourth factor was uninterpretable.

While differences are evident, a clear overlap exists between the factor structure emerging from the EFA and the theory-based scale structure, especially in the areas of sexual fantasy and preparing for sex. Despite variations in Cronbach's Alpha across subscales, I chose to analyze the data in accordance with the face valid, theory-based categorical scale structure. This decision was made to facilitate clarity while staying true

to the primary focus of this study, which is a content-focused, exploratory investigation of the ESF construct, not a detailed statistical rendering of the primary investigatory measure.

Construct discrimination. As a first step in attempting to discriminate the construct of ESF from self-esteem and body esteem, and to investigate sexual function as a possible confounding variable, I evaluated participants' responses to measures of selfesteem, body esteem and sexual function. The mean scores of all measures fell within the published normal ranges: self-esteem (Rosenberg, 1989; Sinclair, Blais, Gansler, Sandberg, Bistis, & LoCicero, 2010), body esteem (Franzoi & Shields, 1984) and sexual function (Rosen et al, 1997; Rosen et al., 2000) (Table 6). Moreover, there were no significant sex differences on scores of self-esteem, t(387) = 0.965, p < .34, and body esteem, t(387) = 1.79, p < .07. I also calculated correlations between scores on the ESFEX and scores on measures of self-esteem and body esteem. The scales employed to gauge sexual function are sex specific, and thus, scores cannot be integrated and compared. As a result, sexual function was not included in this correlational analysis. It will, however, be considered in later analyses. Results of the correlational analysis are displayed in Table 7, and show small, although significant, correlations between scores on the Body Esteem Scale and scores on three of the ESFEX subscales (Fantasy, Prep, and Hypothetical Sexual Scenarios).

**Sex differences.** The main focus of the present study was to elucidate the extent to which women report ESF tendencies in relation to men. In order to examine the hypothesis that ESF is a phenomenon associated primarily with women, statistical comparisons of ESFEX scores between the sexes were performed.

Construct discriminant measures. Correlation coefficients between scores on the ESFEX and measures of self-esteem, body esteem and sexual function were computed for men and women separately. As outlined in Tables 8 and 9, self-esteem correlated significantly only with one score (the Prep subscale) and only for women. Body esteem correlated significantly with the Hypothetical Sexual Scenarios subscale in men. In women, there was a small significant correlation between body esteem and total scores on the ESFEX, and moderate significant correlations between body esteem and two of the subscales (Prep and Hypothetical Sexual Scenarios). Sexual function was not significantly correlated with scores on the ESFEX for either sex.

Comparison of scores between sexes. Independent samples t-tests, incorporating a Bonferroni-Holm correction to minimize Type I error, were employed to compare men's and women's scores on the ESFEX. Women's total ESFEX score, and women's scores on all ESFEX subscales, were significantly higher than men's scores, with large to very large effect sizes, as measured by Cohen's d (Table 10). At the item level, 40 of the 46 questions analyzed yielded significant score differences between sexes, with women scoring significantly higher on 39 of these 40 items.

### **Erotic Self-Focus Construct Endorsement Questionnaire (ESFCE)**

In order to test the hypothesis that participants will perceive women as more inclined toward ESF than men, dependent t-tests were performed on ESFCE scores.

Results displayed in Table 11 demonstrate that both men and women endorsed ESF in women more than ESF in men, with large effect sizes. I also ran independent samples t-tests of ESFCE scores to determine if men and women differed in their appraisals of ESF

in men versus women (Table 12). While men and women perceived comparable levels of ESF in women, women endorsed significantly higher levels of ESF in men than did men.

### **Chapter 6: Discussion**

## **Summary of Findings**

Overall, the results confirmed the existence of a tendency among surveyed women to engage in self-directed attentional focus in a variety of erotic contexts associated with sexual desire/subjective sexual arousal. More so than men, women reported manifestations of erotic self-focus (ESF) in their cognitions and behaviors, as evidenced by significantly higher scores on the ESFEX. Scores on the construct endorsement questionnaire (ESFCE) showed that both men and women in the current sample perceived women as more inclined toward ESF relative to men. There was no significant difference between men and women in the extent to which they endorsed ESF to be characteristic of women, but women characterized men as higher in ESF than did men.

The following discussion of findings will address the discriminant validity of the ESFEX measure and, by implication, the existence of erotic self-focus as independent of potentially related constructs, as well as interpret sex differences in the experience and perception of ESF.

### Is Erotic Self-Focus Merely a Function of Esteem?

It is highly plausible that the degree to which an individual engages in ESF may be a function of how they feel about their body or themselves overall. Just as we are more likely to be turned on by a partner whom we deem physically attractive and of high value, we may find more arousal value in ourselves if we consider ourselves attractive and worthy. Thus, the question is; to what extent is the erotic value of self-directed focus predicated on the valence of self-appraisal? The inclusion of construct discriminant

measures of self-esteem and body esteem attempted to address this question in relation to this study's erotic self-focus experiences measure (ESFEX).

It is reasonable to expect that self-esteem and body esteem would be associated with the construct of ESF to some degree, as research has consistently shown positive associations between favorable self-appraisals and sexual desire and arousal in men and women (Graham et al., 2004; Janssen et al., 2008; Kuffel & Heiman, 2006; Seal, Bradford & Meston, 2009). The current results do show small to moderate significant correlations between measures of esteem (self and body) and certain scores on the ESFEX. For women, results showed a small, positive correlation between body esteem and total score on the ESFEX; whereas, for men, body esteem was not significantly related to total ESFEX score. On the Hypothetical Sexual Scenarios subscale, the correlations with body esteem were small and positive in men, and moderate and positive in women. It seems intuitive that greater confidence in one's body and appearance would be associated, to some degree, with the appeal of having sex with oneself or the arousal value of watching oneself in a sexual scenario. For women, there were significant small to moderate direct correlations between scores on the Prep subscale and both measures of esteem. For women especially, the notion of self-valence would seem important in this dynamic, whereby a higher esteem (self and body) should reasonably be associated with self-focused preparatory activities leading to arousal or getting in the mood for sex.

Overall, the fact that statistically significant correlations did exist between measures of esteem and certain scores on the ESFEX, particularly for women, suggests esteem to be a factor in the expression of ESF, as expected. However, the relatively low magnitudes of these correlations indicate that self-valence is only a part of the ESF

phenomenon, thus supporting a theoretical distinction between ESF and esteem, both self and body related. The present analysis is merely a start in determining whether ESF, as measured by the ESFEX, is distinguishable from measures of self-valence. Further investigation may entail evaluating the discriminant validity of the ESFEX via tests of differential predictability. For example, future research might compare how scores on measures of sexual desire relate to the ESFEX and measures of self and body esteem.

### **Is Erotic Self-Focus Related To Sexual Function?**

For decades, the connection between sexual function and self-focus has been a topic of interest in the field of human sexuality. In 1970, Masters and Johnson highlighted the potential significance of self-directed attention in sexual function. As discussed in greater detail in the literature review, Masters and Johnson initially hypothesized that self-focus during sex was an impediment to sexual function, such that evaluating one's own sexual performance during sexual activity fostered anxiety, which in turn inhibited sexual response. They termed this detrimental process of evaluative self-focus, spectatoring. In the very same publication, Masters and Johnson (1970) proposed employing a different type of self-focus to alleviate sexual dysfunction; an approach they called sensate focus. This approach consisted of a non-evaluative focus on one's own pleasurable sensations during sex as a means of enhancing enjoyment and reducing negative thoughts and feelings capable of inhibiting sexual response.

The concepts of spectatoring and sensate focus highlighted the fact that sexual self-focus can take on different forms ranging from self-judgment, to attending to one's own erotic experience. Thus, it is not surprising that over time, the study of spectatoring and sensate focus revealed a complex relationship between sexual function and self-

focus, such that self-focus can be both helpful and harmful to sexual function (Abrahamson, Barlow, & Abrahamson, 1989; Graham et al., 2004; Heiman & Rowland, 1983; Meston, 2006; Rowland, 2012; Trapnell, Meston, & Gorzalka, 1997). In the present study of ESF, in which self-focus was investigated in relation to sexual desire/arousal, it seemed theoretically indicated to consider the existence of a relationship between one's level of sexual function and one's tendency toward ESF. The results of correlational analyses revealed no significant relationship between scores on measures of sexual function and scores on the ESFEX, for both men and women. Thus, in this sample, individual experiences of ESF were independent of sexual function. It is important to note, however, that the present sample was generally representative of the population at large, and did not include a substantial proportion of individuals with sexual dysfunction. While there was no correlation between ESF and level of sexual functioning in the present study, future research deliberately exploring the manifestation of ESF in those with and without sexual function is warranted to support the notion that ESF is, at least, partly orthogonal to sexual function.

#### **Are Women More Erotically Self-Focused?**

Erotic self-focus experiences. The results clearly showed that women reported significantly greater ESF tendencies overall and in every dimension corresponding with each categorical subscale of the ESFEX than did men. The difference between men's and women's total scores on the ESFEX had a very large effect size, thus implying a substantial difference in the expression of this construct between men and women. This difference was evident to differing extents in each of the subscales.

**Sexual fantasy.** Women registered significantly higher scores on the fantasy subscale with a very large effect size. Overall, participants reported that, more often than not, they, themselves, appeared in their own sexual fantasies. However, both men and women also acknowledged instances in which they fantasized about scenarios where they, themselves, were not clearly present. To account for this variation, a portion of the questions on the fantasy subscale made reference to the respondent directly (e.g., I fantasize about receiving sexual pleasure from another), while other questions referred to a more generic man or woman who may or may not represent the survey respondent (e.g., I focus on what the man/woman is experiencing in the fantasy). Survey results depicted women's fantasies as more centered on their own experience and pleasure, and the experience of the woman in their fantasies. Men's fantasies, on the other hand, appeared more partner-focused and less focused on the man in their fantasies. In fact, women reported focusing on women in their fantasies as much as men reported focusing on women in their fantasies. The fact that women endorsed a greater tendency to focus on themselves when they do appear in their fantasies is a clear expression of ESF. For example, women were significantly more prone than men to endorse fantasizing from the point of view of their sexual partner. From this perspective, women are basically reporting erotic value in imagining having sex with themselves. The finding that women were more apt to focus on the appearance and experience of the unspecified woman in their fantasies is somewhat ambiguous. It is unknown whether the woman in the fantasy is actually oneself, a representation of oneself or another woman altogether. If a heterosexual woman is focusing on the experience of another woman in her fantasies, she may be identifying with this woman, which would imply a level of self-focus. This

interpretation is supported by the empirically-based assertion that women are more likely than men to form a positive projective identification with same-sex figures in erotic contexts (Abrahamson & Mosher, 1979). She could, however, be fully focusing on the experience of another woman in her fantasy which could be interpreted as an erotic focus associated with one's own gender or biological sex, especially in light of men endorsing little attentional focus on the appearance of men in their fantasies. Overall, the findings involving sexual fantasies are compatible with previous research highlighting the relative tendency of women to focus on themselves, and non-relational themes, in their fantasies (Bivona & Critelli, 2009; Ellis & Symons, 1990; Graham et al., 2004; Leitenberg & Henning, 1995; Zurbriggen & Yost, 2004). Additionally, women's inclination to focus on women in their fantasies is consistent with eye tracking research citing women's tendency to attend to other women in erotic imagery (e.g., Lykins, Meana, & Strauss, 2008; Rupp & Wallen, 2008).

Preparing/getting in the mood for sex. Significantly more so than men, and with a large effect size, women indicated engagement in self-focused activities as helping them to get in the mood for sex. Such activities ranged from grooming to looking at oneself in the mirror clothed, naked or wearing undergarments. This finding suggests that there is erotic value for women in self-focused preparation for sex such that attention to the self may facilitate the progression into a sexual state.

Sexual activity. Scores on the Sex subscale of the ESFEX indicated a greater tendency for women to engage in eroticizing self-directed focus during sexual activity. The present measure of ESF in the domain of sexual activity goes beyond mere preoccupation with appearance and performance, and involves self-focus serving as a

facilitator of sexual desire/arousal. More so than men, women reported being turned on by thinking or imagining how they look during sex. Women were also more likely to find arousal value in their own vocalizations during sex. Additionally, women evidenced a greater tendency to focus on themselves during sex as a means of elevating or maintaining their arousal; whereas, men were more inclined to focus on their partner to facilitate arousal. This finding explicitly captures a theme evident in focus groups exploring factors that facilitate and inhibit arousal in men (Janssen et al., 2008) and women (Graham et al., 2004); women's arousal was predominantly contingent upon intrapersonal factors, while men's arousal was more partner dependent.

Sex differences on the Sex subscale also appear consistent with existing research on the previously referenced sexual dysfunction intervention of sensate focus (Masters & Johnson, 1970), which involves a mindful focus on one's own sensations during sexual experiences as a way of fostering sexual response. The existing literature indicates that this intervention is relatively more effective for women than for men (Brody & Weiss, 2010; Meston, 2006; Rowland, 2012). Thus, the present findings support a stronger connection in women between attending to oneself during sex and positive sexual responding in the form of elevated desire and arousal. Further, this finding does not seem to be mediated by self-evaluation in light of the lack of significant correlations between self-esteem and body esteem, and scores on the Sex subscale.

There is an apparent dearth of research directly comparing self- versus partner-focus during sexual activity, especially with regard to desire/arousal. Beck, Barlow and Sakeim (1983) incorporated self-versus partner-focus as an independent variable in a study of men with and without erectile dysfunction. They manipulated focus by asking

participants to watch an erotic film of a heterosexual couple, imagine themselves as the man in the film, and focus on either the man/projected-self or the woman/imaginedpartner in the film. While the study was criticized on the grounds that the manipulation of attentional focus did not generalize well to actual sexual activity (Hartman, 1985), a noteworthy finding emerged when participants were debriefed. Men without sexual dysfunction reported typically focusing on their partner during sex; whereas, men with sexual dysfunction did not report "consistent patterns of attentional focus" (p. 7). A replication study of sexually functional men exposed to audio erotica corroborated the finding that men without sexual dysfunction tend to be partner-focused and register greater arousal when taking that perspective (Abrahamson, Barlow, Beck, Sakheim, & Kelly, 1985; Beck & Barlow, 1986). Responses from the present sample, in which less than 10% of men reported some form of erectile difficulty, seem to be compatible with Beck et al.'s finding, such that men, in general, focus predominantly on their partners during sex, and find arousal value in such a focus. Women in the current sample also reported arousal value in focusing on their partners during sex, but substantially less so than men. Moreover, the same women also reported finding self-focus during sex as a facilitator of arousal nearly as much as they indicated finding arousal value in partner focus. This finding is compatible with Birnbaum, Glaubman and Mikulincers' (2001) surveys of orgasmic and anorgasmic women's experiences during intercourse, in which orgasmic women were significantly more likely to endorse focusing on their own experience and pleasure during sex. Going forward, a more thorough exploration of ESF in the context of the dichotomy of self- versus partner-focus during sex is recommended. Further, this line of research should incorporate both men and women, as such an

investigation may elucidate gender differences in ESF by empirically testing the hypothesis that, during sex, men's sexual arousal is facilitated primarily by a partner focus; whereas, women's arousal is fostered by a comparable mix of self- and partner-focus.

Self-gender eroticization. The conceptualization of the ESF construct stems in part from the assertion that a number of heterosexual women may experience some form of autogynephilia (i.e., arousal stemming from one's own sense of femininity or womanhood; Lawrence, 2010; Moser, 2009). In an attempt to gauge this dynamic, the ESFEX included a three-question subscale pertaining to eroticization of one's own masculinity or femininity, or masculinity or femininity in general. With a very large effect size, women were significantly more likely to report being turned on by their own sense of womanhood, relative to men's reports of being aroused by their own experience of manhood. Further, women reported finding the sounds women make while having sex significantly more arousing than did men find men's sexual vocalizations. Moreover, men indicated a significantly higher level of arousal to women's sexual vocalizations compared with women's reported arousal to men's sexual noises. Overall, the present findings support the sparse existing research exploring self-gender eroticization in women (Moser, 1999), and substantiate the existence and inclusion of self-gender eroticization in the ESF paradigm.

Evidence of self-gender eroticization in women is prominent across the entertainment industry and media. One can see examples of this dynamic in musical lyrics, particularly in songs focused on embracing the experience of being a man or woman. A prime example lies in the 1999 popular music song, *Man! I Feel Like A* 

Woman!, recorded by Shania Twain (Lange & Twain). In a song proclaiming her sense of womanhood, she denounces the relational element of "romance" while celebrating the seemingly erotic feeling in coloring her hair, and wearing short skirts and men's shirts. The lyrics focus on *her* experience as a woman as she "feel[s] the attraction." Interestingly, there is no reference to whose attraction she is feeling, be it another's attraction to her, or a potential autoerotic attraction to herself as a woman. This sentiment stands in stark contrast to men's songs of the same ilk, such as country artist, Ricky Skaggs', You Make Me Feel Like A Man (Rowan, 1985), and blues artist, Bo Diddley's, I'm A Man (McDaniel, 1955). While both songs exude the artists' sense of masculinity, the erotic focus is hardly self-directed. Skaggs expresses how holding his lover's hand, kissing her, tasting her and seeing her smile, makes him feel like a man; while Diddley proclaims, "all you pretty women, stand in line, I can make love to you baby, in an hour's time...I'm a man!" While the erotic energy in the woman's song comes from experiencing her own femininity (i.e., self-focus), the men's masculine sexual energy is rooted in a focus on the woman.

Music videos are similarly differentially themed for men and women. For example, the previously referenced Shania Twain song is visually complemented by her seductively dancing as the center of attention. The music video for the song *I'm Too Sexy* by the English band, Right Said Fred (Fairbass, Fairbass & Manzoli, 1991) illustrates the differences in self-gender eroticization between men and women. The song and video are an apparent satire of the fashion industry and the video depicts the male singers gyrating playfully rather than seductively in see-through mesh shirts, in what appears to be a parody of the suggestive strut of female runway models. The very fact that men dancing

provocatively is depicted as humorous rather than erotic, in a heterosexual context, potentially speaks to this gender eroticization sex difference. Finally, a non-empirical glance at media content also reveals evidence of self-gender eroticization in women, especially relative to men. Merely perusing online marketing material for undergarments and beauty products yields the rapid emergence of easily discernible themes. In general, commercials for women's products appear generally more erotic and sensual compared with the more humorous and playful material accompanying ads for men's products. When heterosexual romantic scenes are depicted, the male commercials seem to focus on gaining the approval of the woman through the use of the advertised product, while the female advertisements often do not include men at all and consist of women seductively preening or attending to themselves. These observations imply, once again, that for women there is an erotic element associated with a focus on facets of one's own femininity. In contrast, for men, eroticism in the context of masculinity actually has a lot more to do with the opposite gender, as opposed to their own. While sex differences on the Gender subscale of the ESFEX add an element of credence to a dynamic that is discernible through social observation, more thorough research is needed to further validate ESF in the form of self-gender eroticization.

Hypothetical scenarios. In all hypothetical sexual scenarios presented to participants, women reported significantly more self-directed attentional focus and concomitant arousal, with a very large effect size. When asked if they would have sex with themselves, over half of the women surveyed responded affirmatively relative to about a quarter of the men. Conversely, 41% of men versus 19% of women indicated that they would not want to have sex with themselves. Women also endorsed greater

self-focus in the hypothetical scenario of watching a video of themselves having sex.

More so than men, women reported a likelihood that they would focus on themselves in the video. On average, men indicated they would predominantly look at their partner; whereas women's reported their attention would be equally divided between themselves and their partner while watching the video. Women also registered substantially higher scores in the strip club scenarios, with a very large effect size. Relative to men, women were more apt to report arousal to watching members of the same sex strip. Additionally, while ratings were significantly different, women's erotic appraisals of watching women strip approached the level of potential arousal they reported to watching men strip.

### Do Men and Women Believe That Women Are More Erotically Self-Focused?

The overall consensus of participants was that ESF was significantly more prevalent in women than in men, with a very large effect size. Not only did women report engaging in thoughts and behaviors associated with ESF on the ESFEX, but this tendency seemed to be outwardly discernible to both men and women on the ESFCE, thus lending support to the existence of this construct and its primary association with women.

Men and women were in agreement with regard to the extent to which ESF manifests in women. However, there were significant sex differences in the appraisal of ESF in men, with women perceiving greater expression of ESF in men, with a medium effect size. This finding is curious; why would women perceive men as harboring more autoerotic tendencies compared to men's perception of themselves as a group? It is certainly possible that men were underreporting ESF in their own experiences potentially as a result of homoerotic anxiety. This explanation assumes that women's perceptions

were a more accurate reflection of men's reality, and men may in fact be more erotically self-focused than they reported both individually and in reference to all men. It is also possible that over time, women have been relegated to, and have thus internalized, the role of universal sexual object so much so that both men and women have developed a sensitivity to the features of female sexuality, even to an eroticizing extent. The findings of this study, as well as prior research, suggest that both men and women find substantial arousal value in focusing on the woman's appearance and experience in fantasies (Ellis & Symons, 1990; Symons, 1990) and erotica (Abramson & Mosher, 1979; Heiman, 1977). Consequently, both men and women together may be more accurate in characterizing women's sexual tendencies; whereas, men and women may be on a different page with regard to the assessment of men's sexual proclivities. This could mean that men's assessment of ESF in their own biological sex is relatively accurate, and women are potentially overestimating the presence of the construct in men. While the truth is likely somewhere in between, the disparity between men and women in the perception of ESF in men is intriguing and worthy of future exploration. In any case, the fact that both men and women perceived nearly identical levels of ESF in women further validates the manifestation of the construct in women.

## Why Might Women Be More Erotically Self-Focused?

There are a host of potential explanations for why women might engage in erotic self-focus, and why they might do so more than men. The possible reasons for this phenomenon stem from multiple theoretical perspectives ranging from social construction, to behaviorism, to evolution.

From the subject matter of Paleolithic sculptures, to images found on ancient Egyptian papyrus, to centuries of European art, women have been cast in the role of sexual object throughout the history of humanity. In the modern world, a brief visit to any newsstand will highlight the sexual objectification of women, as one is likely to find magazines geared for men, and magazines aimed at women, filled with erotic images of women. The literature is replete with theories, and supporting research, highlighting the detrimental effects of objectification on women's psychosexual function across the lifespan (McKay, 2013; Szymanski, Moffitt, & Carr, 2011); a result blamed in large part to girls and women internalizing the role of sexual object through a process of selfobjectification. However, it is possible that some women's sense of self-objectification has resulted in self-admiration and autoerotization, potentially as a result of social conditioning. Some researchers assert that objectification leads to a multitude of highly distressing outcomes for girls and women, including self-harm (Muehlenkamp, Swanson, & Brausch, 2005), sexual dysfunction (Steer & Tiggemann, 2008), depression, disordered eating, substance abuse, anxiety, body image problems and phobic fear of being sexually victimized (Szymanski, et al., 2011). It is possible, however, that self-objectification also has an erotic component that many women experience positively. From a behavioral perspective, ESF could have emerged via classical conditioning such that girls and women have been so powerfully and ubiquitously associated with the role of sexual object that women have come to eroticize themselves and other women, or even femininity as a whole. This dynamic could be further subject to operant conditioning where eroticizing oneself is reinforced via sexual arousal/pleasure and social regard.

The newly introduced theoretical construct of Object of Desire Self-Consciousness (ODSC; Bogaert & Brotto, 2014) provides a rational interpretation of the etiology of ESF in the context of women's sexual objectification. Bogaert and Brotto also assert that many women have internalized a sense of sexual objectification. Consequently, the authors characterize ODSC as, "the perception that one is romantically and sexually desirable in another's eyes" (p. 323). While ODSC is rooted in others' perceptions, it is ultimately a self-focused concept, as a woman with ODSC is aware of and pre-occupied with how she appears to others in the role of sexual object. Thus, ODSC is purportedly tied to self-valence, particularly body image. Bogaert and Brotto theorize that a woman's sexual and romantic self-concept is rooted in schematic sexual scripts adopted across the lifespan, such that when a woman becomes cognizant of another's sexual interest in her, her sense of ODSC is primed. When her sexual script for romance and sex is activated via ODSC, a woman may be more likely to cognitively, affectively and behaviorally respond in a sexual manner. Ultimately, it seems that any erotic component of ODSC stems from the dynamic of a woman being turned on by another's sexual interest in her; a generally accepted theme in women's sexuality (Meana, 2010). While ODSC is said to have some evolutionary foundation in that self-awareness of one's own mate value may have reproductive utility, the ODSC theory appears rooted in social construction of sexual schemata that influence women's responses to their awareness of being a sexual object. It is plausible that the expression of ODSC is a contributing factor in the manifestation of ESF such that ODSC provides a particular pathway in which self-focus is connected with desire/subjective arousal. Thus, ODSC provides one possible socially rooted explanation for the occurrence of ESF. Future

research may want to investigate the statistical relationship between measures of ESF as ODSC and further explore the theoretical relationship between the two constructs; one which explicitly incorporates sexual arousal (ESF) and the other which does not (ODSC).

From an evolutionary perspective, it is possible that ESF in women proved adaptive as it maximized one's own mate value. With the goal of attracting a high value sexual partner, women invest time and resources in cultivating their sexual desirability, much as men have invested in appearing to be resource rich. It is conceivable that women's efforts to maximize their desirability and consequent mate choice have resulted in them developing a sexualized relationship to themselves. In other words, ESF in women may simply be a byproduct of pursuing the evolutionary goal of reproductive success with a man of high worth.

Overall, there is likely a complex etiology to ESF in that there are many possible processes and dynamics contributing to why women may find erotic value associated with self-directed focus. As previously noted, the intent of the present study was to attempt to capture the mere existence of ESF. Investigating a causal explanation for a phenomenon that has not yet been empirically captured and fully validated would be premature. The present results lend support to the existence of ESF in women, and future research is needed to shed light on the underpinnings of the ESF phenomenon.

#### Limitations

As with any exploratory research investigating a new construct, results need to be interpreted cautiously, as replication is indicated to further support the present findings.

Overall, there are two principal concerns relevant to the current study: data collection via Amazon's MTurk and the psychometric properties of the primary measure (ESFEX).

The recruitment of participants via MTurk proved to have both advantages and disadvantages. In addition to rapid and efficient data collection, the use of MTurk provided a degree of participant diversity that eclipsed the demographic range typically found in a university subject pool. While the use of MTurk did systematically allow for a number of useful experimental controls, it was not possible to verify, with 100% certainty, respondent demographics, most notably the primary independent variable of participant sex. As a result of the employment of additional experimental controls, I detected 34 self-identified men attempting to complete the survey battery designated for women and one self-identified women attempting to complete the male survey set. While the procedural systems in place effectively identified this issue, in addition to detecting a small number of participants who attempted to complete the survey battery twice, a modicum of doubt exists around the veracity of self-reported participant demographics. I have very little reason to believe that a significant number of participants deliberately lied about their biological sex to complete the survey and obtain the nominal compensation. The very fact that 35 respondents openly disclosed their biological sex while completing a survey battery intended for the opposite sex is a testament to the lack of deceitful intentions among respondents. Additionally, consultation with other researchers utilizing MTurk and a review of available MTurk studies in the field of psychology, revealed the existence of this concern across studies utilizing MTurk. Further, this consultation and review highlighted the present study's use of unique and relatively extensive systematic controls to maximize data quality. Nonetheless, my inability to confirm participant sex with absolute certainty is a notable limitation and calls for replication with a verified sample via in-person data collection or use of a subject pool with known demographic

characteristics. It is worth mentioning, however, that most of the concerns stemming from the use of an MTurk sample, such as participant honesty and effort in completing survey measures, are not unique to MTurk and have historically existed with traditional surveying methods.

Evaluation of the psychometric properties of the ESFEX showed a level of compatibility between the factor structure identified by the EFA and the original theory-based categorical subscale structure, particularly in the domains of sexual fantasy and preparing for sex. However, there also existed notable disparity between the statistically derived factor structure and the theory-centered subscale configuration. Further, the EFA yielded two uninterpretable factors for men and one for women. Though the internal consistency of the entire ESFEX was considered to be good, there was notable, and concerning, variability in the internal consistency of each of the theory-based subscales, which in most cases could be attributed a small number of subscale items. While the exploratory goals of the present study did not include a psychometric referendum on the primary questionnaire, the measurement of a construct is dependent upon the quality of the measurement tool used. Thus, future exploration into ESF should involve further psychometric analysis of the ESFEX, including potential realignment of the questionnaire's subscale structure and revision or removal of select items.

#### **Future Directions**

Several next steps in the exploration of ESF have been proposed throughout the present discussion. Some of these previously referenced recommendations include continued focus on discriminating the construct of ESF from other constructs, and the

suggestion that follow-up studies of ESF should consider factors such as the relationship between sexual dysfunction and self- versus partner-focus during sexual activity.

The operationalization of erotic self-focus in this study was relatively broad and exploratory. As measured in the two questionnaires, ESF may involve a general attentional focus upon the self, self-centered sexual cognitions, a focus on one's own sensations and arousal, a focus on one's own appearance or sense of worth, or a focus on one's own gender by appreciating one's own sense of masculinity/femininity. Future research is needed to elucidate the relative prominence of each of these elements of ESF, as well as the extent of individual variability in their relationship to other constructs of interest (e.g., sexual desire). With regard to the magnitude, or degree, to which ESF is present, a seven point Likert scale was utilized to gauge ESF on the ESFEX, with one indicating no endorsement, to seven indicating maximum endorsement. Overall, women directly endorsed ESF items at approximately an average level of four. Thus, the present findings are not suggesting that women are entirely self-focused in their sexuality. Partner focus remains prominent in female sexuality. Continued study of the expression of this construct in women will explicate the actual extent to which women engage in ESF and how prominent a role ESF plays in women's sexuality.

As with any viable psychological construct, such as intelligence, the distribution of a particular attribute across a population is an important consideration. Notably, the distribution of women's scores on the ESFEX in the present sample approached normality and cleared all statistical benchmarks for such a classification. Further exploration into the variability of the expression of ESF across women is recommended. It may be useful to explore how women's experiences of ESF potentially differ between cultures or across

the lifespan. Moreover, investigating the association between ESF and other factors, such as personality traits, could further our understanding of the ESF phenomenon.

# Appendix A

# **Tables**

Table 1
Sociodemographic Characteristics of Participants

	Men (N=196)		Wom (N=19	
Characteristic	M	SD	M	SD
Age	30.94	9.31	32.63	10.12
Characteristic	n	%	n	%
Sexual orientation				
Exclusively heterosexual	179	91.33	161	83.42
Predominantly heterosexual, only incidentally homosexual	17	8.67	32	16.58
English language fluency				
Good	2	1.02	1	0.52
Very Good / Native Speaker	194	98.98	192	99.48
Highest level of education				
Elementary school	1	0.51	0	0.00
High School Diploma / GED	28	14.29	23	11.92
Undergraduate degree	80	40.82	81	41.97
Master's degree	10	5.10	17	8.81
Doctorate	8	4.08	2	1.04
Some College	69	35.20	70	36.27
Employment status				
Unemployed	32	16.33	45	23.32
Employed part-time	38	19.39	46	23.83
Employed full-time	109	55.61	85	44.04
Full-time student, not otherwise employed	13	6.63	14	7.25
Retired	3	1.53	3	1.55
On medical/sick leave	1	0.51	0	0.00

(Table 1 continues)

Table 1 (continued)

	Men		Wor	nen
Characteristic	n	%	n	%
Ethnicity				
White/Caucasian	160	81.63	155	80.31
Black/African American	7	3.57	15	7.77
Hispanic	15	7.65	8	4.15
Asian/Pacific Islander	9	4.59	8	4.15
Native American	2	1.02	0	0.00
East Indian	1	0.51	1	0.52
Other	2	1.02	6	3.11
Approximate annual household income				
Up to \$10,000	15	7.65	9	4.66
\$10,000 - \$20,000	32	16.33	28	14.51
\$20,000-\$30,000	25	12.76	40	20.73
\$30,000-\$40,000	21	10.71	24	12.44
\$40,000-\$50,000	24	12.24	22	11.40
\$50,000-\$60,000	26	13.27	23	11.92
\$60,000-\$100,000	32	16.33	33	17.10
Over \$100,000	13	6.63	9	4.66
Do not wish to answer	8	4.08	5	2.59
Present level of sexual activity				
Never had sex ( i.e., virgin)	8	4.08	5	2.59
Currently sexually active	142	72.45	155	80.31
Have been sexually active in the past, but not currently	46	23.47	32	16.58
No Answer	0	0.00	1	0.52

(Table 1 continues)

Table 1 (continued)

	Men		Woi	nen
Characteristic	n	%	n	%
Relationship status				
Single, not dating	67	34.18	35	18.13
Dating one partner regularly	23	11.73	19	9.84
Dating multiple partners	6	3.06	2	1.04
In a relationship, not cohabiting	12	6.12	17	8.81
Cohabiting	31	15.82	52	26.94
Married	52	26.53	65	33.68
Divorced	5	2.55	2	1.04
Widowed	0	0.00	1	0.52
Religious affiliation				
Christian - Catholic	24	12.24	27	13.99
Christian - Protestant	37	18.88	48	24.87
Islamic	2	1.02	0	0.00
Jewish	4	2.04	6	3.11
Buddhist	4	2.04	2	1.04
Agnostic	52	26.53	45	23.32
Atheist	54	27.55	37	19.17
Other	19	9.69	28	14.51

Table 2

Mean Scores on the Erotic Self-Focus Experiences Questionnaire (ESFEX) for All Participants

Massac	М	SD
Measure	(N = 389)	
ESFEX Total Score	159.50	33.56
ESFEX Fantasy Scale	56.11	9.48
ESFEX Prep Scale	35.82	13.27
ESFEX Sex Scale	38.64	9.80
ESFEX Gender Scale	7.95	3.97
ESFEX Hypothetical Sexual Scenarios Scale	12.55	4.76
ESFEX Hypothetical Strip Club Scenarios Scale	8.42	3.53

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Table 3

Intercorrelations and Cronbach's Alphas for Scores on the Erotic Self-Focus Experiences Questionnaire (ESFEX) for All Participants

	Measure	1	2	3	4	5	6	7
1.	ESFEX Total Score	.89						
2.	ESFEX Fantasy Scale	.65***	.48					
3.	ESFEX Prep Scale	.74***	.18**	.91				
4.	ESFEX Sex Scale	.87***	.47***	.53***	.79			
5.	ESFEX Gender Scale	.76***	.47***	.38***	.68***	.58		
6.	ESFEX Hypothetical Sexual Scenarios Scale	.75***	.38***	.43***	.65***	.67***	.56	
7.	ESFEX Hypothetical Strip Club Scenarios Scale	.70***	.51***	.31***	.56***	.64***	.62***	.16

 $\textit{Note.} \ \ \text{Cronbach's alphas are presented in bold face along the diagonal.} \ \ *p < .01. \ *** p < .001. \ *** p < .0001. \ (2-tailed with Bonferoni-Holm correction)$ 

Table 4

Factor Analysis of Erotic Self-Focus Experiences Questionnaire (ESFEX) Items (Men)

				,	Factor			
	Item	1	2	3	4	5	6	$h^2$
9.	In my fantasies, my gaze is on the man.	.67	02	10	03	.04	.11	.49
45.	Men stripping	.67	04	08	05	.19	.11	.47
4.	In my fantasies, I focus on how the man looks.	.62	01	.00	.02	.07	.05	.39
43.	How arousing do I think I would find a video of myself masturbating?	.61	.04	.06	.16	17	03	.48
38.	How arousing do I find male sexual vocalizations? (e.g., sounds a man makes when having sex)	.60	05	17	.18	09	.16	.60
40.	Would you want to have sex with you?	.59	22	.06	03	.01	09	.45
6.	I have fantasies with multiple men and one woman.	55	01	.07	.08	.11	11	.37
32.		.44	19	.07	.03	30	.15	.47
37.	Does the very thought of being a woman/man turn me on?	.40	15	.12	.13	23	.25	.43
46.	How arousing is the fantasy of stripping in front of many members of the opposite sex?	.39	06	.10	.01	49	05	.50
12.	My fantasized sexual partner(s) is an identifiable person(s) (e.g. a current or ex-partner, a celebrity, a movie character, a co-worker, a specific desired partner)	39	03	29	.03	53	.25	.52
33.	<u> </u>	.37	24	06	.15	36	08	.52
8.	In my fantasies, my gaze is on the woman.	.37	.06	44	.19	04	.23	.56
15.	I fantasize from my partner(s) point of view (looking through my partner(s) eyes)	.36	06	29	05	24	03	.35
41.	If I were watching myself having sex with an opposite sex partner in a mirror (or a video), how much of the time do I think I would be looking at myself versus my partner?	.35	22	02	.09	35	.18	.49
35.	During sex, I focus my attention on myself in order to elevate or maintain my arousal.	.31	01	.04	.33	40	05	.48

(Table 4 continues)

Table 4 (continued)

		Factor						
	Item	1	2	3	4	5	6	$h^2$
24.	Choosing what to wear	.02	85	02	.02	.12	02	.73
17.	Grooming	11	81	.09	05	.05	.08	.61
23.	Applying a fragrance	07	80	09	04	.10	06	.63
25.	Looking at myself in the mirror	.00	78	.03	12	06	01	.62
22.	when I am dressed and ready to go Brushing and arranging hair	01	78	04	05	08	02	.63
19.	Picking out attractive	02	70	07	.18	04	03	.57
21.	undergarments (briefs or panties) Applying lotions (body lotion or aftershave)	.15	60	17	05	04	05	.46
26.	How important to my sexual desire and arousal is the extent to which I feel sexy and desirable?	.06	55	.22	.12	.05	06	.39
20.	Looking at myself in the mirror in my undergarments	.19	54	.04	.07	26	04	.52
18.	Looking at myself in the mirror naked	.09	47	.00	.14	34	05	.48
1.	I appear in my sexual fantasies.	.04	.03	.77	.04	.08	10	.65
10.	I fantasize about receiving sexual pleasure from another person or	11	.03	.70	19	24	01	.60
3.	persons. I focus on what the man is experiencing in the fantasy.	.27	.06	.62	.21	.33	.05	.53
14.	I fantasize from my point of view (looking through my own eyes)	.16	.26	62	.04	29	02	.57
5.	In my fantasies, I focus on how the woman looks.	.14	01	53	.05	.00	.38	.56
11.	I fantasize about giving sexual pleasure to another person or	11	01	51	.51	.30	.02	.59
7.	persons.  I have fantasies with multiple	01	.10	.35	.10	31	17	.26
31.	women and one man.  During sex, how focused am I on how I generally feel versus how my	01	03	.07	.82	01	.04	.68
30.	partner generally feels? During sex, how focused am I on my arousal versus my partner's	08	07	04	.80	02	06	.65
2.	arousal? I focus on what the woman is experiencing in the fantasy.	15	.19	.05	.57	.11	.10	.39

(Table 4 continues)

Table 4 (continued)

		Factor						
	Item	1	2	3	4	5	6	$h^2$
13.	My partner(s) in my sexual fantasies is not an identifiable person(s) (e.g. they are a silhouette, an anonymous figure)	18	.07	01	.07	58	.31	.46
28.	During sex, how much of a turn on is it for me to think of, or imagine, how I look as I am having sex?	.22	25	02	.22	50	10	.58
16.	I fantasize from an observer's perspective, as if I am outside of my body watching myself having sex	.28	.05	07	.01	45	28	.38
36.	During sex I focus my attention on my partner in order to elevate or maintain my arousal.	09	.10	.01	.22	42	.41	.45
29.	During sex, how focused am I on how I look versus on how my partner looks?	.16	27	16	.27	36	.09	.51
34.	How arousing do I find my partner's vocalizations during sex? (e.g., sounds my partner makes when having sex)	.01	06	.03	02	12	.86	.76
39.	How arousing do I find female sexual vocalizations? (e.g., sounds a woman makes when having sex)	.14	.02	08	.04	06	.78	.72
42.	How arousing do I think I would find a video of my partner masturbating?	04	01	07	.14	.05	.62	.45
44.	Women stripping	.15	.11	.00	08	.21	.42	.25
27.	If I do not feel sexy or desirable at any given moment, to what extent does that interfere with my sexual arousal when having sex with someone who desires me?	.17	29	09	.12	.07	04	.17

(Table 4 continues)

Table 4 (continued)

Eigenvalue	9.38	5.08	2.97	2.41	1.86	1.72
Factor Intercorrelations	1	2	3	4	5	6
Factor 1	1.00					
Factor 2	23	1.00				
Factor 3	09	.04	1.00			
Factor 4	.12	09	09	1.00		
Factor 5	22	.14	.06	17	1.00	
Factor 6	.10	.08	22	.14	06	1.00

Note. Salient pattern matrix coefficients are in boldface.  $h^2 = communality$ . Factor 1 = Self-focus. Factor 2 = Preparation for Sex. Factor 3 = Sexual Fantasy. Factor 4 = Uninterpretable. Factor 5 = Uninterpretable. Factor 6 = Partner-focus.

Table 5

Factor Analysis of Erotic Self-Focus Experiences Questionnaire (ESFEX) Items (Women)

		Factor							
	Item	1	2	3	4	5	h <sup>2</sup>		
24.	Choosing what to wear	.84	03	.01	.02	06	.70		
22.	Brushing and arranging hair	.83	02	08	04	.04	.67		
17.	Grooming	.80	03	08	.04	.04	.60		
25.	Looking at myself in the mirror when I am dressed and ready to go	.80	.02	.01	.11	09	.69		
23.	Applying a fragrance	.77	.04	03	09	.08	.61		
19.	Picking out attractive undergarments (briefs or panties)	.75	05	.09	03	07	.56		
21.	Applying lotions (body lotion or aftershave)	.61	.15	11	06	01	.49		
20.	Looking at myself in the mirror in my undergarments	.54	.35	.06	.05	.13	.55		
26.	How important to my sexual desire and arousal is the extent to which I feel sexy and desirable?	.42	.02	.08	01	40	.42		
18.	Looking at myself in the mirror naked	.32	.51	.02	.01	.15	.46		
43.	How arousing do I think I would find a video of myself masturbating?	06	.75	.12	.06	.10	.55		
46.	How arousing is the fantasy of stripping in front of many members of the opposite sex?	11	.68	.07	.12	03	.45		
37.	Does the very thought of being a woman/man turn me on?	.12	.64	.09	.02	.04	.50		
28.	During sex, how much of a turn on is it for me to think of, or imagine, how I look as I am having sex?	.18	.58	.01	04	.05	.45		
45.	Men stripping	.03	53	.23	.14	.01	.32		
40.	Would you want to have sex with you?	.00	.49	.14	04	12	.33		
33.	How arousing do I find my own vocalizations during sex? (e.g., sounds I make when having sex)	.17	.46	.28	02	05	.47		
15.	I fantasize from my partner(s) point of view (looking through my partner(s) eyes)	.00	.45	.10	08	.14	.22		

(Table 5 continues)

Table 5 (continued)

		Factor		_			
	Item	1	2	3	4	5	$h^2$
32.	During sex, how often do I touch my own body?	.01	.41	.32	.27	11	.45
44.	Women stripping	10	.38	.53	.03	12	.50
39.	How arousing do I find female sexual vocalizations? (e.g., sounds a woman makes when having sex)	.00	.37	.55	.02	09	.54
35.	During sex, I focus my attention on myself in order to elevate or maintain my arousal.	.04	.36	.02	.60	08	.51
2.	I focus on what the woman is experiencing in the fantasy.	.14	33	.56	.04	39	.43
	I focus on what the man is experiencing in the fantasy.	09	31	.27	.38	07	.36
42.	How arousing do I think I would find a video of my partner masturbating?	.03	30	18	.48	.01	.35
4.	In my fantasies, I focus on how the man looks.	12	30	.39	.18	.24	.43
8.	In my fantasies, my gaze is on the woman.	.06	.07	.74	.06	.04	.60
7.	I have fantasies with multiple women and one man.	.11	24	63	.01	04	.48
16.	I fantasize from an observer's perspective, as if I am outside of my body watching myself having sex	03	03	.56	25	.07	.32
6.	I have fantasies with multiple men and one woman.	20	.19	.52	20	.13	.35
9.	In my fantasies, my gaze is on the man.	10	14	.51	.20	.30	.51
5.	In my fantasies, I focus on how the woman looks.	.12	.29	.44	.09	02	.41
	If I were watching myself having sex with an opposite sex partner in a mirror (or a video), how much of the time do I think I would be looking at myself versus my partner?	.03	.20	.40	05	10	.26
29.	During sex, how focused am I on how I look versus on how my partner looks?	.29	.11	.36	06	.22	.29
13.	My partner(s) in my sexual fantasies is not an identifiable person(s) (e.g. they are a silhouette, an anonymous figure)	.19	07	.35	13	.51	.39

(Table 5 continues)

Table 5 (continued)

		Factor		_		_
Item	1	2	3	4	5	h <sup>2</sup>
14. I fantasize from my point of view (looking through my own eyes)	13	03	.31	05	.61	.52
10. I fantasize about receiving sexual pleasure from another person or persons.	.03	11	.31	03	61	.43
38. How arousing do I find male sexual vocalizations? (e.g., sounds a man makes when having sex)	14	09	05	.71	.06	.58
30. During sex, how focused am I on my arousal versus my partner's arousal?	.14	.23	12	.69	09	.54
31. During sex, how focused am I on how I generally feel versus how my partner generally feels?	.03	.20	.05	.65	12	.49
34. How arousing do I find my partner's vocalizations during sex? (e.g., sounds my partner makes when having sex)	09	04	19	.63	.24	.51
36. During sex I focus my attention on my partner in order to elevate or maintain my arousal.	04	14	.12	.57	.23	.50
11. I fantasize about giving sexual pleasure to another person or persons.	.15	25	17	.30	.37	.34
12. My fantasized sexual partner(s) is an identifiable person(s) (e.g. a current or ex-partner, a celebrity, a movie character, a co-worker, a specific desired partner)	.17	04	.16	.00	.79	.65
1. I appear in my sexual fantasies.	.06	14	.13	06	77	.58
27. If I do not feel sexy or desirable at any given moment, to what extent does that interfere with my sexual arousal when having sex with someone who desires me?	.23	15	.04	06	27	.13
Eigenvalue	8.82	4.90	3.10	2.72	1.92	_

(Table 5 continues)

Table 5 (continued)

Factor Intercorrelations	1	2	3	4	5	
Factor 1	1.00					
Factor 2	.44	1.00				
Factor 3	.04	.18	1.00			
Factor 4	08	04	.19	1.00		
Factor 5	19	29	.03	.09	1.00	

Note. Salient pattern matrix coefficients are in boldface.  $h^2 = communality$ . Factor 1 = Preparation for Sex. Factor <math>2 = Self-focus. Factor 3 = Sexual Fantasy. Factor 4 = Uninterpretable. Factor 5 = Partner-focus.

Table 6

Mean Scores on Construct Discriminant Measures

		Men			Women	
	M	SD	n	M	SD	n
Self-esteem Scale Total Score	20.52	6.72	196	19.89	6.13	193
Body Esteem Scale Total Score	116.36	21.94	196	112.10	24.77	193
Sexual Function Score (Sexually Active Participants)	61.74	13.27	183	27.60	6.04	171

*Note.* Men's sexual function was measured by the International Index of Erectile Function (IIEF). Women's sexual function was measured by the Female Sexual Function Inventory (FSFI).

Table 7

Intercorrelations for Scores on Construct Discriminant Measures and Scores on the Erotic Self-Focus Experiences Questionnaire (ESFEX) for All Participants

	Measure	Self-Esteem Scale Total Score	Body Esteem Scale Total Score
1.	ESFEX Total Score	.04	.09
2.	ESFEX Fantasy Scale	04	17**
3.	ESFEX Prep Scale	.12	.18**
4.	ESFEX Sex Scale	03	.06
5.	ESFEX Gender Scale	.02	.10
6.	ESFEX Hypothetical Sexual Scenarios Scale	.08	.23***
7.	ESFEX Hypothetical Strip Club Scenarios Scale	.03	.04

Note. \* p < .01. \*\*\* p < .001. \*\*\* p < .0001. (2-tailed with Bonferoni-Holm correction)

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Table 8

Intercorrelations for Scores on Construct Discriminant Measures and Scores on the Erotic Self-Focus Experiences Questionnaire (ESFEX) for Men

	Measure	Self-Esteem Scale Total Score	Body Esteem Scale Total Score	Sexual Function (IIEF) Total Score
1.	ESFEX Total Score	01	.14	10
2.	ESFEX Fantasy Scale	04	05	.02
3.	ESFEX Prep Scale	.04	.13	07
4.	ESFEX Sex Scale	07	.08	10
5.	ESFEX Gender Scale	04	.13	13
6.	ESFEX Hypothetical Sexual Scenarios Scale	.04	.25**	04
7.	ESFEX Hypothetical Strip Club Scenarios Scale	.04	.13	14

 $\textit{Note}. \ \ IIEF = International\ Index\ of\ Erectile\ Function. \ \ ^*p < .01.\ ^{**}p < .001.\ ^{***}p < .0001.\ (2-tailed\ with\ Bonferoni-Holm\ correction)$ 

Table 9

Intercorrelations for Scores on Construct Discriminant Measures and Scores on the Erotic Self-Focus Experiences Questionnaire (ESFEX) for Women

	Measure	Self-Esteem Scale Total Score	Body Esteem Scale Total Score	Sexual Function (FSFI) Total Score
1.	ESFEX Total Score	.21	.23*	.15
2.	ESFEX Fantasy Scale	.00	20	.02
3.	ESFEX Prep Scale	.27**	.31***	.19
4.	ESFEX Sex Scale	.07	.17	.08
5.	ESFEX Gender Scale	.15	.21	.05
6.	ESFEX Hypothetical Sexual Scenarios Scale	.21	.41***	.11
7.	ESFEX Hypothetical Strip Club Scenarios Scale	.09	.10	.05

 $\textit{Note.} \quad FSFI = Female \; Sexual \; Function \; Inventory. \quad *p < .01. \\ **p < .001. \\ ***p < .0001. \\ (2-tailed \; with \; Bonferoni-Holm \; correction) \\ (3-tailed \; with \; Bonferoni-Holm \; correction) \\ (4-tailed \; with \; Bonferoni-Holm \; correc$ 

Table 10

Independent T-tests Comparing Scores on the Erotic Self-Focus Experiences Questionnaire (ESFEX) Between Sexes

	Men		Women			
	M	SD	M	SD	t	d
ESFEX Total Score	139.27	27.23	180.04	26.10	-15.07***	1.5
ESFEX Fantasy Scale	51.73	7.01	60.56	9.61	-10.36***	1.1
Indicate the extent to which the statement is true to your experience.						
I appear in my sexual fantasies.	5.72	1.50	5.58	1.67	0.89	0.1
I focus on what the woman is experiencing in the fantasy.	3.03	1.61	4.96	1.72	-11.46***	1.2
I focus on what the man is experiencing in the fantasy.	4.60	1.91	4.13	1.73	2.53	0.3
In my fantasies, I focus on how the man looks.	2.16	1.43	3.19	1.77	-6.32***	0.6
In my fantasies, I focus on how the woman looks.	1.55	0.94	3.82	1.93	-14.77***	1.5
I have fantasies with multiple men and one woman.	5.98	1.71	3.01	2.06	15.50***	1.6
I have fantasies with multiple women and one man.	4.40	2.06	5.61	1.74	-6.24***	0.6

(Table 10 continues)

Table 10 (continued)

	Men		Women			
- -	М	SD	M	SD	t	d
In my fantasies, my gaze is on the woman.	1.61	0.94	3.12	1.76	-10.62***	1.1
In my fantasies, my gaze is on the man.	1.64	1.05	2.93	1.58	-9.54***	1.0
I fantasize about receiving sexual pleasure from another person or persons.	5.94	1.32	5.72	1.36	1.60	0.2
I fantasize about giving sexual pleasure to another person or persons.	2.41	1.51	3.29	1.74	-5.33***	0.5
My fantasized sexual partner(s) is an identifiable person(s) (e.g. a current or ex-partner, a celebrity, a movie character, a co-worker, a specific desired partner)	2.49	1.61	2.85	1.79	-2.09	0.2
My partner(s) in my sexual fantasies is not an identifiable person(s) (e.g. they are a silhouette, an anonymous figure)	2.80	1.73	3.18	1.94	-2.04	0.2
I fantasize from my point of view (looking through my own eyes)	2.10	1.25	2.74	1.48	-4.59***	0.5
I fantasize from my partner(s) point of view (looking through my partner(s) eyes)	2.00	1.44	2.43	1.60	-2.79 <sup>*</sup>	0.3
I fantasize from an observer's perspective, as if I am outside of my body watching myself having sex	3.30	1.84	3.99	1.87	-3.69**	0.4
SFEX Prep Scale	31.19	12.52	40.52	12.36	-7.40***	0.8

(Table 10 continues)

#### Table 10 (continued)

	Me	en	Won	nen		
	M	SD	M	SD	t	d
Grooming	4.39	1.85	5.15	1.71	-4.20***	0.4
Looking at myself in the mirror naked	2.96	1.75	3.46	1.84	-2.73*	0.3
Picking out attractive undergarments (briefs or panties)	3.32	1.98	5.06	1.75	-9.19 <sup>***</sup>	0.9
Looking at myself in the mirror in my undergarments	2.87	1.78	4.11	2.00	-6.48***	0.7
Applying lotions (body lotion or aftershave)	2.88	1.77	4.13	1.88	-6.72***	0.7
Brushing and arranging hair	3.40	1.95	4.37	1.90	-4.97***	0.5
Applying a fragrance	3.37	1.87	4.19	2.05	-4.09***	0.4
Choosing what to wear	3.91	1.94	5.01	1.64	-5.99***	0.6
Looking at myself in the mirror when I am dressed and ready to go	4.09	1.99	5.06	1.75	-5.08***	0.5
FEX Sex Scale	33.94	9.13	43.41	7.98	-10.89***	1.1
How important to my sexual desire and arousal is the extent to which I feel sexy and desirable?	5.00	1.38	5.90	1.10	-7.122***	0.7

(Table 10 continues)

Table 10 (continued)

	Men		Wom	en		
	M	SD	M	SD	t	d
If I do not feel sexy or desirable at any given moment, to what extent does that interfere with my sexual arousal when having sex with someone who desires me?	3.98	1.60	5.26	1.38	-8.44***	0.9
During sex, how much of a turn on is it for me to think of, or imagine, how I look as I am having sex?	2.98	1.74	3.49	1.78	-2.84*	0.3
During sex, how focused am I on how I look versus on how my partner looks?	2.45	1.59	3.61	1.66	-7.01***	0.7
During sex, how focused am I on my arousal versus my partner's arousal?	3.50	1.52	3.97	1.37	-3.22*	0.3
During sex, how focused am I on how I generally feel versus how my partner generally feels?	3.53	1.42	4.09	1.36	-3.99***	0.4
During sex, how often do I touch my own body?	2.96	1.51	3.82	1.61	-5.47***	0.6
How arousing do I find my own vocalizations during sex? (e.g., sounds I make when having sex)	2.65	1.64	3.87	1.84	-6.89***	0.7
How arousing do I find my partner's vocalizations during sex? (e.g., sounds my partner makes when having sex)	1.92	1.23	2.46	1.53	-3.79**	0.4
During sex, I focus my attention on myself in order to elevate or maintain my arousal.	2.79	1.46	3.92	1.64	-7.19***	0.7
During sex I focus my attention on my partner in order to elevate or maintain my arousal.	2.17	1.26	3.02	1.37	-6.37***	0.6

(Table 10 continues)

Table 10 (continued)

	Men		Won	nen		
	М	SD	M	SD	t	d
ESFEX Gender Scale	5.90	3.22	10.04	3.57	-12.00***	1.2
Does the very thought of being a woman/man turn me on?	2.46	1.68	3.56	1.94	-5.99***	0.6
How arousing do I find male sexual vocalizations? (e.g., sounds a man makes when having sex)	1.79	1.39	2.60	1.57	-5.40***	0.5
How arousing do I find female sexual vocalizations? (e.g., sounds a woman makes when having sex)	1.66	1.13	3.88	1.96	-13.74***	1.4
ESFEX Hypothetical Sexual Scenarios Scale	10.05	4.17	15.08	3.91	-12.27***	1.2
Would you want to have sex with you?	3.53	1.99	4.68	1.71	-6.09***	0.6
If I were watching myself having sex with an opposite sex partner in a mirror (or a video), how much of the time do I think I would be	2.72	1.65	3.92	1.59	-7.28***	0.7
looking at myself versus my partner?  How arousing do I think I would find a video of my partner masturbating?	1.98	1.39	3.88	2.00	-10.85***	1.1
How arousing do I think I would find a video of myself masturbating?	1.81	1.34	2.61	1.77	-4.99***	0.5
ESFEX Hypothetical Strip Club Scenarios Scale	6.46	2.59	10.42	3.23	-13.34***	1.4
If I were to go to a strip club, how arousing would I find the following scenarios?						

(Table 10 continues)

Table 10 (continued)

	Men		Wome	Women		
- -	М	SD	M	SD	t	d
Women stripping	2.20	1.33	3.34	2.00	-6.65***	0.7
Men stripping	1.36	0.93	4.04	1.95	-17.31***	1.8
How arousing is the fantasy of stripping in front of many members of the opposite sex?	2.90	1.93	3.04	2.00	-0.72	0.1

Note. Sample sizes for all comparisons, Men (n=196), Women (n=193); degrees of freedom (df) = 387 for all comparisons.

<sup>\*</sup> p<.01. \*\* p<.001. \*\*\* p<.0001. (2-tailed with Bonferoni-Holm correction)

Table 11

Dependent Sample T-Tests Comparing Erotic Self-Focus Construct Endorsement Questionnaire (ESFCE) Scores Within Participants

	ESF in Construct En Sec	ndorsement	ESF in W Construct E	ndorsement			
Participant Grouping	M	SD	M	SD	df	t	d
Men and Women $(n = 389)$	20.14	6.59	26.72	5.53	388	16.15*	1.1
Men $(n = 196)$	18.41	6.66	26.96	5.36	195	14.90*	1.4
Women $(n = 193)$	21.89	6.05	26.48	5.70	192	8.42*	0.8

<sup>\*</sup> p<.0001. (2-tailed with Bonferoni-Holm correction)

Table 12

Independent Samples T-Tests Comparing Erotic Self-Focus Construct Endorsement Questionnaire (ESFCE) Scores Between Sexes

	Men		Wor	Women			
Participants Grouping	M	SD	M	SD	df	t	d
ESF in MEN Construct Endorsement Score	18.41	6.66	21.89	6.05	387	-5.39 <sup>*</sup>	0.5
ESF in WOMEN Construct Endorsement Score	26.96	5.36	26.48	5.70	387	0.86	0.1

*Note.* Sample sizes for all comparisons, Men (n=196), Women (n=193). \* p<.0001. (2-tailed with Bonferoni-Holm correction)

#### Appendix B

### **Erotic Self-Focus Experiences Questionnaire (ESFEX)**

### **Sexual Experiences Questionnaire**

This questionnaire is designed to assess different aspects of the sexuality of heterosexual men and women. Please answer as honestly as possible. All possible answers fall well within the range of how heterosexual men and women feel and respond.

#### **Fantasies**

The following questions refer to your heterosexual fantasies. For each item, please indicate the extent to which the statement is true to your experience. Please answer every question regardless of your gender.

I appear in my sexual fantasies.

1	2	3	4	5	6	7		
0	0	0	0	0	0	0		
Never or Seldom			Some of the time			Often		
I focus on what	t the woman	is experienc	eing in the fantas	sy.				
1	2	3	4	5	6	7		
0	0	0	0	0	0	0		
Never or Seldom		Some of the time						
I focus on what	t the man is	experiencing	g in the fantasy.					
1	2	3	4	5	6	7		
0	0	0	0	0	0	0		
Never or Seldom			Some of the time			Often		

In my fantasie	s, I focus or	n how the m	an looks.			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never or Seldom			Some of the time			Often
In my fantasie	s, I focus or	n how the w	oman looks.			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never or Seldom			Some of the time			Often
I have fantasies	s with multi	ple men and	I one woman.			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never or Seldom			Some of the time			Often
I have fantasies	s with multi	ple women	and one man.			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never or Seldom			Some of the time			Often
In my fantasies	, my gaze is	s on the wor	nan.			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never or Seldom			Some of the time			Often

In my fantasies	, my gaze is	s on the man				
1	2	3	4	5	6	7
O Never or Seldom	0	0	Some of the time	0	0	Often
I alternate gaze woman in the s			mes my gaze is	on the man	and sometim	es on the
1	2	3	4	5	6	7
O Never or Seldom	0	0	Some of the time	0	0	Often
I fantasize abou	nt receiving	sexual pleas	ure from another	r person or p	persons.	
1	2	3	4	5	6	7
O Never or Seldom	0	0	Some of the time	0	0	Often
I fantasize abou	it giving sex	xual pleasure	e to another perso	on or person	ıs.	
1	2	3	4	5	6	7
O Never or Seldom	0	0	Some of the time	0	0	Often
			lentifiable person er, a specific des			partner, a
1	2	3	4	5	6	7
O Never or Seldom	0	0	Some of the time	0	Ο	Often

silhouette, an a	nonymous i	figure)				
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never or Seldom			Some of the time			Often
I fantasize fron	n my point o	of view (look	king through my	own eyes)		
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never or Seldom			Some of the time			Often
I fantasize fron	n my partne	r(s) point of	view (looking th	rough my p	artner(s) eye	es)
1	2	3	4	5	6	7
Ο	Ο	0	0	Ο	0	0
Never or Seldom			Some of the time			Often
I fantasize fron having sex	n an observe	er's perspect	ive, as if I am ou	tside of my	body watchi	ng myself
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never or Seldom			Some of the time			Often

My partner(s) in my sexual fantasies is not an identifiable person(s) (e.g. they are a

Getting in the Mood for Sex

When you are getting ready for a date with someone you are attracted to or for an encounter with your partner that is likely to result in sex, to what extent do the following activities help get you in the mood for sex.

Grooming						
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much
Looking at my	self in the	mirror naked	I			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much
Picking out att	ractive und	lergarments	(briefs or pant	ies)		much
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much
Looking at my	self in the	mirror in my	undergarmen	ts		
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much
Applying lotio	ns (body lo	otion or after	shave)			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much
Brushing and a	arranging h	air				
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much

Applying a fra	grance					
1	2	3	4	5	6	7
0	0	Ο	0	Ο	0	0
Not at all			Some			Very much
Choosing wha	t to wear					
1	2	3	4	5	6	7
0	0	Ο	Ο	Ο	0	0
Not at all			Some			Very much
Looking at my	self in the	mirror when	I am dressed a	and ready to	go	
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much
Please answer	the followi	ing questions	:			
How importan desirable?	t to my sex	ual desire an	d arousal is th	e extent to v	which I feel s	sexy and
1	2	3	4	5	6	7
0	0	Ο	0	0	0	0
Not at all			Some			Very much
If I do not feel with my sexua	•	_	_			nat interfere
1	2	3	4	5	6	7
0	0	Ο	0	0	0	0
Not at all			Some			Very much

During sex, ho having sex?	ow much of	a turn on is i	t for me to thin	k of or ima	igine how I l	ook as I am
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much
During sex, ho	ow focused	am I on how	I look versus o	n how my	partner look	s?
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Very much focused on partner			Equally focused on self and partner			Very much focused on me
During sex, ho	ow focused	am I on my a	rousal versus n	ny partner's	s arousal?	
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Very			Equally			
much			focused			Very
focused			on my			much
on			arousal and that of			focused on my
partner's			my			arousal
arousal			partner			urousur
During sex, ho feels?	ow focused	am I on how	I generally feel	l versus ho	w my partne	r generally
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Very			Equally			
much			focused			Very
focused			on how I			much
on how			feel and			focused
my partner			how my partner			on how I feel
feels			feels			1001

During sex, he	ow often do	I touch my	own body?			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Never			Sometimes			Often
How arousing having sex)	do I find n	ny own vocal	lizations duri	ng sex? (e.g.,	sounds I m	ake when
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much
How arousing makes when h		ny partner's v	vocalizations	during sex? (	e.g., sounds	s my partner
1	2	3	4	5	6	7
Ο	0	Ο	0	0	0	0
Not at all			Some			Very much
During sex, I	focus my at	ttention on m	yself in order	r to elevate or	maintain n	ny arousal.
1	2	3	4	5	6	7
Ο	0	0	0	0	0	0
Not at all			Some			Very much
During sex I f	ocus my at	tention on my	y partner in o	rder to elevate	e or maintai	in my arousal.
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much

(Question pres	sented only	to women) I	Does the very t	hought of bo	eing a woma	an turn me
1	2	3	4	5	6	7
Ο	0	Ο	0	0	0	0
Not at all			Some			Very much
(Question pres	sented only	to men) Doe	es the very thou	ught of bein	g a man turi	n me on?
1	2	3	4	5	6	7
Ο	0	Ο	0	0	0	0
Not at all			Some			Very much
How arousing having sex)	do I find n	nale sexual v	ocalizations? (	e.g., sounds	a man mak	es when
1	2	3	4	5	6	7
Ο	Ο	Ο	0	Ο	0	0
Not at all			Some			Very much
How arousing having sex)	do I find fo	emale sexual	vocalizations	? ( e.g., sour	nds a womar	n makes when
1	2	3	4	5	6	7
0	0	0	0	Ο	0	0
Not at all			Some			Very much
Would I want	to have sex	with me?				
1	2	3	4	5	6	7
Oefinitely No	0	0	O Don't know	0	0	O Definitely Yes

video), how m	uch of the	time do I thii	nk I would be l	ooking at n	nyself versu	s my partner?
1	2	3	4	5	6	7
0	0	0	Ο	0	0	0
Looking mostly at partner			Looking equally at self and partner			Looking mostly at self
How arousing	do I think	I would find	a video of my	partner ma	sturbating?	
1	2	3	4	5	6	7
0	0	Ο	0	0	0	0
Not at all			Some			Very much
How arousing	do I think	I would find	a video of mys	self masturl	pating?	
1	2	3	4	5	6	7
0	0	Ο	0	0	0	0
Not at all			Some			Very much
If I were to go	to a strip o	club, how aro	using would I	find the fol	lowing scen	arios?
Women stripp	ing					
1	2	3	4	5	6	7
0	0	Ο	0	0	0	0
Not at all			Some			Very much
Men stripping						
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much

If I were watching myself having sex with an opposite sex partner in a mirror (or a

Men and wor	Men and women stripping together							
1	2	3	4	5	6	7		

0	0	0		0	0	0
Not at all	O	Ü	Some	O	Ü	Very much

How arousing is the fantasy of stripping in front of many members of the opposite sex?

1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much

#### **Appendix C**

# **Erotic Self-Focus Construct Endorsement Questionnaire (ESFCE)**

#### **Sexual Perceptions Questionnaire**

Please read the following statements and questions carefully and then assess the extent to which you think these statements are true of women in general or men in general.

Women's sexual arousal is dependent on how sexy they judge themselves to be.

1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much so

Men's sexual arousal is dependent on how sexy they judge themselves to be.

0	0	0	0	0	0	0
Not at all			Some			Very much so

How important to a woman's sexual arousal is her own judgment of how sexy/desirable she is <u>versus</u> her male partner's judgment of how sexy/desirable she is?

1	2	3	4	5	6	7
O Nowhere near as	0	0	0	0	0	O Much more
important as her partner's judgment			Equally important			important than her partner's judgment

How important to a man's sexual arousal is his own judgment of how sexy/desirable he	e is
versus his female partner's judgment of how sexy/desirable he is?	

1	2	3	4	5	6	7
0	0	0	0	0	0	0
Nowhere						Much
near as						more
important			Equally			important
as his			important			than his
partner's						partner's
judgment						judgment

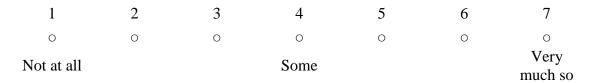
During sex, a woman's sexual arousal is dependent on how much she is turning herself on by imagining or seeing how she looks having sex.

1	2	3	4	5	6	7
0	Ο	0	0	0	0	0
Not at all			Some			Very much so

During sex, a man's sexual arousal is dependent on how much he is turning himself on by imagining or seeing how he looks having sex.

Not at all			Some			Very much so
0	0	0	0	0	0	0
1	2	3	4	5	6	7

During sex, women are focusing more on how they look and feel than on how their partner looks and feels.



During sex, men are focusing more on how they look and feel than on how their partner looks and feels.

1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much so
Women are tu	rned on by	their own fen	mininity.			
1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much so
Men are turned	d on by the	ir own mascu	llinity.			
1	2	3	4	5	6	7
0	Ο	0	0	0	0	0
Not at all			Some			Very much so

Consider the extent to which you find the following theory to ring true:

More so than heterosexual men, heterosexual women derive sexual arousal from feeling that they are sexy, that their bodies are arousing and from imagining themselves sexually. Although an attractive, desirous male partner is very important to their arousal, they also turn themselves on by focusing on their own sexiness during sexual encounters and even outside of sex. Women are thus, to some extent, their own objects of desire and find themselves arousing.

To what extent do I agree with this theory:

Not at all	O	O	Some	O	O	Very much so
1	2	3	4	5	6	7

Consider the extent to which you find the following theory to ring true:

More so than heterosexual women, heterosexual men derive sexual arousal from feeling that they are sexy, that their bodies are arousing and from imagining themselves sexually. Although an attractive, desirous female partner is very important to their arousal, they also turn themselves on by focusing on their own sexiness during sexual encounters and even outside of sex. Men are thus, to some extent, their own objects of desire and find themselves arousing.

To what extent do I agree with this theory:

1	2	3	4	5	6	7
0	0	0	0	0	0	0
Not at all			Some			Very much so

# Appendix D

# **Demographic Questionnaire**

Please answer the following demographic information questions.

C	at sex were you born as?  Male  Female
C	at gender do you identify as?  Male  Female
0 0 0 0 0 0	w would you describe your sexual orientation? Exclusively heterosexual Predominantly heterosexual, only incidentally homosexual Predominantly heterosexual, but more than incidentally homosexual Equally heterosexual and homosexual Predominantly homosexual, but more than incidentally heterosexual Predominantly homosexual, only incidentally heterosexual Exclusively homosexual
Wh	at is your current age?
O O O	at is your level of fluency with the English language? Poor Fair Good Very Good / Native Speaker
O O O	at is the highest level of education you have completed? Elementary school High School Diploma / GED Undergraduate degree Master's degree Doctorate
O	Some College

Wł	nat is your current employment status?
$\mathbf{O}$	Unemployed
0	Employed part-time
$\mathbf{O}$	Employed full-time
$\mathbf{O}$	Full-time student, not otherwise employed
0	Retired
$\mathbf{O}$	On medical/sick leave
Но	w would you classify your ethnic background?
$\mathbf{O}$	White/Caucasian
$\mathbf{O}$	Black/African American
0	Hispanic
0	Asian/Pacific Islander
0	Native American
0	East Indian
O	Middle Eastern
O	Other
TT 71	
	nat is your approximate annual household income?
	Up to \$10,000
	\$10,000 - \$20,000
	\$20,000-\$30,000
	\$30,000-\$40,000
	\$40,000-\$50,000
	\$50,000-\$60,000
	\$60,000-\$100,000
	Over \$100,000
0	Do not wish to answer
Wł	nat is your current relationship status?
	Single, not dating
	Dating one partner regularly
	Dating multiple partners
	In a relationship, not cohabiting
	Cohabiting
	Married
	Divorced
	Widowed

which of the following best describes your present level of sexual activity?
O Never had sex (i.e., virgin)
O Currently sexually active
• Have been sexually active in the past, but not currently
Which of the following best describes your religious affiliation?
O Christian - Catholic
O Christian - Protestant
O Islamic
O Jewish
O Buddhist
O Hindu
O Agnostic
O Atheist
O Other

# Appendix E

### **Rosenberg Self-Esteem Scale (SES)**

Below are ten statements. Please rate how much you agree with each. The items should be answered quickly without overthinking, your first inclination is what you should put down.

<ul> <li>I feel that I am a person of worth, at least on an equal plane with others</li> <li>O Strongly Agree</li> <li>O Agree</li> <li>O Disagree</li> <li>O Strongly Disagree</li> </ul>
I feel that I have a number of good qualities.
O Strongly Agree
O Agree
O Disagree
O Strongly Disagree
All in all, I am inclined to feel that I am a failure.  O Strongly Agree O Agree O Disagree O Strongly Disagree
I am able to do things as well as most other people.
O Strongly Agree
O Agree
O Disagree
O Strongly Disagree
I feel I do not have much to be proud of.  O Strongly Agree  O Agree
O Disagree
O Strongly Disagree
Shoristy Disaster

I ta	ke a positive attitude toward myself.
$\mathbf{O}$	Strongly Agree
0	Agree
0	Disagree
0	Strongly Disagree
On	the whole, I am satisfied with myself.
O	Strongly Agree
O	Agree
O	Disagree
0	Strongly Disagree
I w	ish I could have more respect for myself.
O	Strongly Agree
O	Agree
O	Disagree
0	Strongly Disagree
I ce	ertainly feel useless at times.
O	Strongly Agree
O	Agree
$\mathbf{O}$	Disagree
0	Strongly Disagree
At	times I think I am no good at all.
O	Strongly Agree
0	Agree
0	Disagree
$\mathbf{O}$	Strongly Disagree

# Appendix F

### **Body Esteem Scale (BES)**

Below are listed a number of body parts and functions. Please read each item and indicate how you feel about this part or function of <u>your own body</u>.

	Have strong negative feelings	Have moderate negative feelings	Have no feeling one way or the other	Have moderate positive feelings	Have strong positive feelings
body scent	0	0	O	0	O
appetite	•	0	•	O	0
nose	•	0	0	0	O
physical stamina	O	•	•	•	0
reflexes	•	•	0	0	O
lips	•	•	0	O	O
muscular strength	•	0	0	0	O
waist	•	•	O	O	O
energy level	•	•	0	0	O
thighs	•	•	0	O	O
ears	0	0	0	0	0
biceps	•	•	0	O	O
chin	•	•	0	0	O
body build	•	O	O	O	O
physical	•	•	0	0	0
coordination					
buttocks	•	O	O	O	O
agility	0	O	0	0	O
width of shoulders	•	O	O	O	0
arms	0	O	0	0	O
chest or breasts	•	O	•	O	O
appearance of eyes	•	•	0	0	O
cheeks/cheekbones	•	•	O	O	O
hips	0	0	0	0	0
legs	•	•	O	O	O
figure or physique	0	O	0	0	O
sex drive	•	•	O	O	O
feet	•	•	0	0	O
sex organs	•	O	O	O	O
appearance of	0	0	0	0	0
stomach					
health	•	O	•	O	O
sex activities	0	O	O	O	O
body hair	•	O	O	O	O
physical condition	0	•	0	0	O
face	•	O	O	O	O
weight	0	0	O	0	O

#### Appendix G

#### Female Sexual Function Index (FSFI)

INSTRUCTIONS: These questions ask about your sexual feelings and responses <u>during</u> the past 4 weeks. Please answer the following questions as honestly and clearly as possible. Your responses will be kept completely confidential.

In answering these questions the following definitions apply:

<u>Sexual activity</u> can include caressing, foreplay, masturbation and vaginal intercourse.

<u>Sexual intercourse</u> is defined as penile penetration (entry) of the vagina.

<u>Sexual stimulation</u> includes situations like foreplay with a partner, self-stimulation (masturbation), or sexual fantasy. CHECK ONLY ONE BOX PER QUESTION

<u>Sexual desire</u> or <u>interest</u> is a feeling that includes wanting to have a sexual experience, feeling receptive to a partner's sexual initiation, and thinking or fantasizing about having sex.

Over the past 4 weeks, how often did you feel sexual desire or interest?
O Almost always or always
O Most times (more than half the time)
O Sometimes (about half the time)
• A few times (less than half the time)
O Almost never or never
Over the past 4 weeks, how would you rate your <u>level</u> (degree) of sexual desire or
interest?
O Very high
O High Moderate
O Low
O. V 1
O Very low or none at all

<u>Sexual arousal</u> is a feeling that includes both physical and mental aspects of sexual excitement. It may include feelings of warmth or tingling in the genitals, lubrication (wetness), or muscle contractions.

Over the past 4 weeks, how <u>often</u> did you feel sexually aroused ("turned on") during
sexual activity or intercourse?
O No sexual activity
O Almost always or always
O Most times (more than half the time)
O Sometimes (about half the time)
• A few times (less than half the time)
O Almost never or never
Over the past 4 weeks, how would you rate your <u>level</u> of sexual arousal ("turn on")
during sexual activity or intercourse?
O No sexual activity
O Very high
O High Moderate
O Low
O Very low or none at all
Over the past 4 weeks, how <u>confident</u> were you about becoming sexually aroused during
sexual activity or intercourse?
O No sexual activity
O Very high confidence
O High confidence
O Moderate confidence
O Low confidence
O Very low or no confidence
Over the past 4 weeks, how often have you been satisfied with your arousal (excitement)
during sexual activity or intercourse?
O No sexual activity
O Almost always or always
O Most times (more than half the time)
O Sometimes (about half the time)
O A few times (less than half the time)
O Almost never or never

activity or intercourse?
O No sexual activity
O Almost always or always
O Most times (more than half the time)
O Sometimes (about half the time)
O A few times (less than half the time)
O Almost never or never
7 Annost never of never
Over the past 4 weeks, how <u>difficult</u> was it to become lubricated ("wet") during sexual
activity or intercourse?
O No sexual activity
• Extremely difficult or impossible
O Very difficult
O Difficult
O Slightly difficult
O Not difficult
Over the past 4 weeks, how often did you maintain your lubrication ("wetness") until completion of sexual activity or intercourse?  O No sexual activity O Almost always or always O Most times (more than half the time) O Sometimes (about half the time) O A few times (less than half the time) O Almost never or never
<ul> <li>completion of sexual activity or intercourse?</li> <li>No sexual activity</li> <li>Almost always or always</li> <li>Most times (more than half the time)</li> <li>Sometimes (about half the time)</li> <li>A few times (less than half the time)</li> </ul>
<ul> <li>completion of sexual activity or intercourse?</li> <li>No sexual activity</li> <li>Almost always or always</li> <li>Most times (more than half the time)</li> <li>Sometimes (about half the time)</li> <li>A few times (less than half the time)</li> <li>Almost never or never</li> </ul>
<ul> <li>completion of sexual activity or intercourse?</li> <li>No sexual activity</li> <li>Almost always or always</li> <li>Most times (more than half the time)</li> <li>Sometimes (about half the time)</li> <li>A few times (less than half the time)</li> <li>Almost never or never</li> </ul> Over the past 4 weeks, how difficult was it to maintain your lubrication ("wetness") until
completion of sexual activity or intercourse?  O No sexual activity O Almost always or always O Most times (more than half the time) O Sometimes (about half the time) O A few times (less than half the time) O Almost never or never  Over the past 4 weeks, how difficult was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse?
completion of sexual activity or intercourse?  O No sexual activity O Almost always or always O Most times (more than half the time) O Sometimes (about half the time) O A few times (less than half the time) O Almost never or never  Over the past 4 weeks, how difficult was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse? O No sexual activity
completion of sexual activity or intercourse?  O No sexual activity O Almost always or always O Most times (more than half the time) O Sometimes (about half the time) O A few times (less than half the time) O Almost never or never  Over the past 4 weeks, how difficult was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse? O No sexual activity O Extremely difficult or impossible
completion of sexual activity or intercourse?  No sexual activity Almost always or always Most times (more than half the time) Sometimes (about half the time) Afew times (less than half the time) Almost never or never  Over the past 4 weeks, how difficult was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse? No sexual activity Extremely difficult or impossible Very difficult

Over the past 4 weeks, when you had sexual stimulation or intercourse, how often did
you reach orgasm (climax)?
O No sexual activity
O Almost always or always
O Most times (more than half the time)
O Sometimes (about half the time)
• A few times (less than half the time)
O Almost never or never
Over the past 4 weeks, when you had sexual stimulation or intercourse, how <u>difficult</u> was
it for you to reach orgasm (climax)?
O No sexual activity
• Extremely difficult or impossible
O Very difficult
O Difficult
O Slightly difficult
O Not difficult
Over the past 4 weeks, how <u>satisfied</u> were you with your ability to reach orgasm (climax) during sexual activity or intercourse?
O No sexual activity
O Very satisfied
O Moderately satisfied
• About equally satisfied and dissatisfied
O Moderately dissatisfied
O Very dissatisfied
Tory dissuistica
Over the past 4 weeks, how satisfied have you been with the amount of emotional closeness during sexual activity between you and your partner?  O No sexual activity O Very satisfied O Moderately satisfied O About equally satisfied and dissatisfied O Moderately dissatisfied O Very dissatisfied

Over the past 4 weeks, how <u>satisfied</u> have you been with your sexual relationship with
your partner?
O No sexual activity
O Very satisfied
O Moderately satisfied
O About equally satisfied and dissatisfied
O Moderately dissatisfied
O Very dissatisfied
Over the past 4 weeks, how <u>satisfied</u> have you been with your overall sexual life?
O Did not attempt intercourse
O Almost always or always
O Most times (more than half the time)
O Sometimes (about half the time)
O A few times (less than half the time)
O Almost never or never
Over the past 4 weeks, how often did you experience discomfort or pain during vaginal
penetration?
O Did not attempt intercourse
O Almost always or always
O Most times (more than half the time)
O Sometimes (about half the time)
O A few times (less than half the time)
O Almost never or never
Over the past 4 weeks, how often did you experience discomfort or pain following
vaginal penetration?
O Did not attempt intercourse
O Almost always or always
O Most times (more than half the time)
O Sometimes (about half the time)
• A few times (less than half the time)
O Almost never or never

Over the past 4 weeks, how would you rate your <u>level</u> (degree) of discomfort or pain
during or following vaginal penetration?
O Did not attempt intercourse
O Very high
O High
O Moderate
O Low
O Very low or none at all

# Appendix H

### **International Index of Erectile Function (IIEF)**

These questions ask about your erections and your sex life <u>over the last four weeks</u>. Please try to answer the questions as honestly and as clearly as you are able.

In answering the questions, the following definitions apply:	
sexual activity includes intercourse, caressing, foreplay & masturbation	
sexual intercourse is defined as sexual penetration of your partner	
sexual stimulation includes situation such as foreplay, erotic pictures etc.	
ejaculation is the ejection of semen from the penis (or the feeling of this)	
orgasm is the fulfillment or climax following sexual stimulation or intercourse	
Please check one box only  Over the <u>past 4 weeks</u> :	
How often were you able to get an erection during sexual activity?  O No sexual activity O Almost never or never O A few times (less than half the time) O Sometimes (about half the time) O Most times (more than half the time)	
O Almost always or always	

enough for penetration?
O No sexual activity
O Almost never or never
O A few times (less than half the time)
O Sometimes (about half the time)
O Most times (more than half the time)
O Almost always or always
Almost always of always
When you attempted intercourse, how often were you able to penetrate (enter) your
partner?
O Did not attempt intercourse
O Almost never or never
O A few times (less than half the time)
O Sometimes (about half the time)
O Most times (more than half the time)
O Almost always or always
During sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner?
O Did not attempt intercourse
O Almost never or never
• A few times (less than half the time)
O Sometimes (about half the time)
O Most times (more than half the time)
O Almost always or always
During sexual intercourse, how difficult was it to maintain your erection to completion of
intercourse?
O Did not attempt intercourse
O Extremely difficult
O Very difficult
O Difficult
O Slightly difficult
O Not difficult
- 1,00 0000000

How many times have you attempted sexual intercourse?
O No attempts
O One to two attempts
O Three to four attempts
O Five to six attempts
O Seven to ten attempts
O Eleven or more attempts
When you attempted sexual intercourse, how often was it satisfactory for you?
O Did not attempt intercourse
O Almost never or never
• A few times (less than half the time)
O Sometimes (about half the time)
O Most times (more than half the time)
O Almost always or always
How much have you enjoyed sexual intercourse?
O No intercourse
O No enjoyment at all
O Not very enjoyable
O Fairly enjoyable
O Highly enjoyable
O Very highly enjoyable
When you had sexual stimulation or intercourse, how often did you ejaculate?
O No sexual stimulation or intercourse
O Almost never or never
O A few times (less than half the time)
O Sometimes (about half the time)
O Most times (more than half the time)
O Almost always or always
When you had sexual stimulation or intercourse, how often did you have the feeling or
orgasm or climax?
O Almost never or never
O A few times (less than half the time)
O Sometimes (about half the time)
O Most times (more than half the time)
O Almost always or always

How often have you felt sexual desire?
O Almost never or never
• A few times (less than half the time)
O Sometimes (about half the time)
O Most times (more than half the time)
O Almost always or always
How would you rate your level of sexual desire?
O Very low or none at all
O Low
O Moderate
O High
O Very high
How satisfied have you been with your <u>overall sex life</u> ?
O Very dissatisfied
O Moderately dissatisfied
O Equally satisfied & dissatisfied
O Moderately satisfied
O Very satisfied
How satisfied have you been with your <u>sexual relationship</u> with your partner?
O Very dissatisfied
O Moderately dissatisfied
O Equally satisfied & dissatisfied
O Moderately satisfied
O Very satisfied
How do you rate your <u>confidence</u> that you could get and keep an erection?
O Very low
O Low
O Moderate
O High
O Very high

# Appendix I

## **Recruitment Advertisements on the Amazon Mturk Website**

## Advertisement for men.

<u>Heterosexual</u>	, English speaking Men, Age 21-	: Respond to questions	about your sexual experiences	and perceptions.	~30mins
Requester:	Human Sexuality Research	HIT Expiration Date:	May 6, 2014 (4 weeks 1 day)	Reward:	\$1.00
		Time Allotted:	1 hour 30 minutes	HITs Available:	1
Description:	<b>Description:</b> [WARNING: This HIT may contain adult content. Worker discretion is advised.] You will be asked to complete an online survey of mostly multiple choice questions about your sexual experiences and perceptions. Estimated time ~30 minutes to complete.				
Keywords: survey, psychology, sex, sexuality					
Qualifications Required:					
Total approv	ed HITs is greater than 0				
HIT approval rate (%) is not less than 90					
Location is US					
Adult Content Qualification is 1					

## Advertisement for women.

[]	Facility and the Manage And	21 Danamad ta			~~~ ~~~
Heterosexual	, English speaking Women, Age	21+: Kespond to questi	ons about your sexual experier	ices and perception	ons. "30mins
Requester:	Human Sexuality Research	HIT Expiration Date:	May 6, 2014 (4 weeks 1 day)	Reward:	\$1.00
		Time Allotted:	1 hour 30 minutes	HITs Available:	1
<b>Description:</b> [WARNING: This HIT may contain adult content. Worker discretion is advised.] You will be asked to complete an online survey of mostly multiple choice questions about your sexual experiences and perceptions. Estimated time ~30 minutes to complete.				'	
Keywords:	survey, psychology, sex, sexu	ıality			
Qualification	ns Required:				
Total approv	ed HITs is greater than 0				
HIT approval rate (%) is not less than 90					
Location is US					
Adult Content Qualification is 1					

# Appendix J

## **Survey Instructions and Web Link**

Answer a survey
We are conducting a survey about sexual experiences and perceptions. Open the link below to complete the survey. At the end of the survey, you will receive a code to paste into the box below to receive the monetary reward for taking the survey.
Survey link: <a href="http://www.linktosurvey.com">http://www.linktosurvey.com</a>
Provide the survey code here:

Note: Website address displayed is for demonstration purposes. The actual web address was inserted during the study.

## Appendix K

### **Informed Consent**

**Title of Study**: Study of Sexual Experiences and Perceptions

**Investigators**: Marta Meana, Ph. D., Evan Fertel, B.S., Sarah Jones, M.A., Caroline Maykut, B.A.

### **Purpose of the Study**

You are invited to participate in a research study. The purpose of this study is to learn about heterosexual individuals' sexual experiences and perceptions.

## **Participants**

You a	re being asked to participate in the study because you are,
	At least 21 years of age
	Self-identify as heterosexual
	Are fluent in the English language
	Presently reside in the United States
	Have successfully completed at least one MTurk HIT with at least a 90% work
	acceptance rate

## **Procedures**

If you volunteer to participate in this study, you will be asked to anonymously complete a series of questionnaires about your sexual experiences and perceptions, self-esteem, and body image. Additionally, you will be asked to provide demographic information.

### **Benefits of Participation**

There may be no direct benefit to you as a participant in the study. It is possible that you may benefit from the knowledge that you are helping contribute to the general body of knowledge on the subject of human sexuality.

#### **Risks of Participation**

There are risks involved in all research studies. This study may include only minimal risks. You may experience some stress or discomfort when answering potentially sensitive questions of a sexual and/or personal nature. Your participation is voluntary, and you are free to discontinue participation at any time.

### **Cost / Compensation**

There will be no financial cost to you to participate in this study. The study will take approximately 30 minutes of your time. Upon successful completion of all survey

measures, you will be compensated \$1.00 for your participation through the Amazon MTurk system. The researchers will release the funds within 48 hours of you providing a survey completion code. The funds will be released to Amazon who will disperse payment to you.

### **Confidentiality**

All information gathered in this study will be kept confidential. No names will be gathered. You will, however, be asked to provide your MTurk ID for payment verification purposes. Once the study is complete, your MTurk ID will be deleted from our records. No reference will be made in written or oral materials that could link you to this study. All records will be archived electronically in a secured facility at the University of Nevada, Las Vegas (UNLV) and will be destroyed after 7 years, as per APA guidelines.

### **Contact Information**

If you have any questions or concerns about the study, you may contact the co-investigator at sexualityresearchgroup@gmail.com, or the primary investigator, Dr. Marta Meana, at 702-895-0184. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity- Human Subjects at 702-895-2794.

## **Voluntary Participation**

Your participation in this study is voluntary. You may refuse to participate in this study. You may withdraw at any time. Please note that while you are free to refuse or withdraw from participation, compensation will only be awarded to participants who complete the entire survey battery.

### **Participant Consent:**

I have read the above information, I am eligible based on the criteria specified above, and I agree to participate in this study.

•	Yes
•	No

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## **Curriculum Vitae**

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