SEX, POWER, AND ATTRACTION: THE IMPACT OF POWER ON SEXUAL BEHAVIORS AND ATTITUDES

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Abstract

Much of the existing literature on sexual behaviors and attitudes points to biological factors as the major determinants. Evolutionary theorists in particular cite the differential costs and benefits of reproduction for males and females as the major deciding factors in human sexual behaviors and attitudes. However, a major flaw of this previous literature is that it does not consider the social construct of power as a potential moderator of the relationship between gender and sexual behaviors and attitudes. Considering that males across the globe tend to have greater power and social status than women, it is important to address this gap. The present studies seek to do just that. Results presented in this paper suggest that power influences attitudes toward, desires for, and willingness to engage in casual sex, regardless of gender. Furthermore, power was shown to influence the reporting of previous casual sex behaviors for women. Importantly, power was also shown to have a direct impact on attraction to various forms of sexual aggression, including attraction to bondage, conventional sex, and unconventional sex. Moreover, power also impacted the mate quality that individuals thought they could realistically attain for a short-term relationship, such that people with power perceived themselves as capable of obtaining a higher quality mate for a short-term relationship. The data reported in this paper also demonstrate how gender, skewed sex ratios, and success or failure at obtaining a sexual partner impacted sexual behaviors, attitudes, and beliefs. Specifically, while males reliably demonstrated greater desires for casual sex, sex ratio and success/failure feedback further influenced the impact of gender, such that men who were successful at obtaining a partner in the female-biased condition reported the greatest desire for casual sex. Sex ratio and gender were also shown to interact with each other, such that individuals in limited supply reported having a higher mate value. These studies question previous beliefs about the biological underpinnings of
sexuality, and instead support the idea that power may directly influence the relationship between gender and sexual behaviors and attitudes.
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Introduction

The economics of mating are simple: the bargaining power always belongs to the rarer sex. This is a classic issue of supply and demand – the rarer sex dictates the market conditions by deciding what traits are most desirable, leaving the sex in over-supply to compete for their affections (Pederson, 1991). Evolutionary theorists propose specific, supposedly innate trait preferences that men and women seek out in a potential sexual/romantic partner. Depending on the mating market conditions, individuals will either seek out these qualities in others (if they possess the bargaining power), or seek to emulate these qualities in the hopes of obtaining a sexual/romantic partner (Buss & Schmitt, 1993; Pederson, 1991).

While these predictions have been exhaustively tested across the globe, providing seemingly conclusive evidence for sex-specific partner preferences, one issue remains: throughout the world, men consistently have more power and status than do women (Helgeson, 2012). This begs the question, if women had power, would their partner preferences remain the same, therefore providing additional evidence for innate sex-specific partner preferences, or would their preferences be more similar to those of men? The present research seeks to explore the impact of power on mating preferences.

Competition in the mating market

Mating markets are rarely, if ever, an even playing field. In other words, depending on the market conditions, it is almost always the case that some individuals are at an advantage while others are at a disadvantage. Those who are at an advantage are able to be more selective in their partner choices, while those at a disadvantage are left with the task of appealing to the desires of the advantaged (Pederson, 1991). The specific qualities and
sexual strategies that are prioritized in these different mating markets have long been a central focus in the fields of evolutionary and social psychology. As such, a tight-knit web of theories has emerged to explain how different market conditions influence mating decisions and individuals’ selectivity when considering preferred partner qualities.

**Sexual Selection.**

Charles Darwin, the father of evolution, made waves with his theory of natural selection, which stated that adaptive traits (i.e. traits that aid in survival) are those that are passed on to future generations (Darwin, 1859). However, despite the overwhelming success of this theory, Darwin noticed a problem. Not all traits that are selected for are adaptive for survival. For instance, male peacocks have large, brightly colored plumage that could potentially make it difficult to survive by not only making them more visible to predators, but also making them slower due to the added weight and size. However, the male peacocks with the most extravagant plumage are often those that are most successful at mating (Frederick, Reynolds, & Fisher, 2013). In response to this revelation, Darwin developed Sexual Selection Theory (Darwin, 1871), which states that characteristics that give individuals of a particular species an advantage when competing for mates, as opposed to enhancing their survival, also have the potential to evolve. Therefore, if members of one sex reach a consensus about what traits are considered most attractive, those individuals who possess these desired traits have a distinct advantage in the mating market. Those who do not possess these traits, on the other hand, will be selectively excluded (Buss, 1998).

**Parental Investment Theory.**
Sexual Selection Theory provided a much-needed foundation for the study of human sexuality. Building upon this research, Robert Trivers (1972), an evolutionary biologist by trade, made an invaluable contribution to this field of study by highlighting the importance of parental investment in mate selection. As defined by Trivers (1972), parental investment is “any investment by the parent in an individual offspring that increases that offspring’s chance of surviving (and hence increasing reproductive success) at the cost of the parent’s ability to invest in other offspring.”

Undeniably, there are vast sex differences in human reproduction and parental investment. At the minimum, human females must endure nine months of pregnancy and placentation, often followed by years of breast-feeding, during which time it is virtually impossible to become pregnant again. Human males, on the other hand, have a minimal investment of semen. According to Trivers’ Parental Investment Theory, the higher investing sex (i.e., the sex for which reproduction is the most biologically costly) is a valuable resource for which the lesser investing sex competes. Based on this theory, human females should be the more selective sex (i.e., more discriminatory in who they copulate with) and therefore should be the sex that drives sexual selection. Human males, on the other hand, should be left to compete for access to sexually available females (Buss & Schmitt, 1993; Wilbur & Campbell, 2010). Taken together, parental investment controls the process of sexual selection by determining which sex should engage in intrasexual competition (i.e., competition among members of one sex for access to sexually available members of the other sex).

Sexual Strategies Theory.
Considering the impact of parental investment on sexual selection, one question still remains: In the context of intrasexual competition, what traits will be considered most valuable in the mating market? Building on the work of their predecessors, Buss and Schmitt (1993) addressed this question by creating a comprehensive framework of the various problems and priorities that men and women face in mating situations. Their argument being, the problems that men and women face in reproduction have resulted in the development of specific mate preferences that facilitate solving these problems. These reported preferences, and the problems they solve, are the basis of Sexual Strategies Theory (Buss & Schmitt, 1993; Schmitt & Buss, 1996; Smiler, 2011)

The reproductive problems that men and women face stem directly from sex differences in parental investment and reproductive potential. Specifically, men have a particularly low minimum level of parental investment (i.e., ejaculation) and have a high reproductive capacity, whereas women have a comparatively high minimum level of parental investment (i.e., nine months of pregnancy and years of lactation) and low reproductive capacity (Trivers, 1972). Due to these differences in reproductive abilities and minimal parental investment, men are hypothesized to be more interested in short-term mating (which would supposedly maximize their reproductive potential), while women are hypothesized to be more interested in long-term mating (which would ensure greater survival rates of their offspring; Buss & Schmitt, 1993). However, despite these differences in preferences, men and women still engage in both long-term and short-term relationships. Sexual Strategies Theory aims to explain both the problems that men and women encounter, and the benefits that they receive from these differential mating strategies.
While men are hypothesized to prefer short-term mating, they do face a number of problems when seeking short-term mates. The first of which is an issue of numbers: in order to have a large amount of short-term sex, there needs to be a large number of women willing to engage in such behaviors. Relatedly, even if there are a large number of women available within a population, those women must also be sexually accessible and reproductively capable. Additionally, men also face an issue of avoiding investment during short-term relationships – which could prove problematic as women are hypothesized to seek investment in their partners. Men also face a number of problems when seeking a long-term partner. In addition to the problems of finding sexually accessible women and minimizing their investment efforts, men must also identify fertile women with which long-term mating will be reproductively beneficial (Buss & Schmitt, 1993).

Women, though frequently referred to as the “sexual gatekeepers,” also face issues when seeking and choosing a sexual partner. Unlike men, women typically do not face an issue of partner number when seeking a short-term mate. Instead, women face the problem of finding men that will provide immediate resources. In terms of seeking long-term partners, women must identify men that are willing and able to invest in them and their potential offspring, that are willing and able to commit to them, that can provide them protection, and that show signs of good parenting skills (Buss & Schmitt, 1993).

Though men are reported to typically prefer short-term mating, they do often engage in long-term relationships. To explain this, Sexual Strategies Theory describes a series of scenarios in which men may shift to a long-term relationship preference. These scenarios include: acquiring a partner with high mate value, providing offspring better genes, and to avoid the potential risk of not reproducing at all. Similarly, while women
typically prefer long-term mating, Sexual Strategies Theory describes certain scenarios in which women may shift to a short-term mating strategy. These scenarios include: to acquire better genes for their offspring, to gain immediate resources, to evaluate their own mate value, to evaluate their partner’s mate value, to evaluate the potential for a long-term relationship with a short-term partner, and to discern if any deception has occurred (Buss & Schmitt, 1993).

A number of studies have provided evidence for this theory. For instance, men have consistently been shown to have a greater desire for and more positive attitudes toward casual sex than women (Simpson & Gangestad, 1991), and to desire a larger number of sexual partners over the course of a lifetime than do women (Webster & Bryan, 2007). In terms of investigations of partner characteristics, men have consistently been shown to prefer women that are attractive and younger, which are cues of reproductive fitness; while women have consistently been shown to prefer men that are able to provide resources and have a high earning capacity. These preferences have also been shown in cross-cultural studies, providing some support for the universality of these preferred partner qualities (Schmitt, 2005). Additional research has demonstrated that women tend to prefer attractive partners for short-term mating, providing some support to the hypothesis that women engage in short-term relationships to procure better genes for their offspring. Finally, in an investigation of women’s short-term mating strategies, Greiling and Buss (2000) identified mate-switching (i.e. finding a better partner) and resource acquisition as two major benefits that women receive from this behavior.

**Operational Sex Ratios.**
One of the recurring issues that both men and women face when entering the mating market is that of partner availability. Importantly, the number of sexually available individuals in a given population dramatically influences the sexual strategies elicited by members of said population. Emlen and Oring (1977) were the first to introduce Operational Sex Ratios (OSRs; the ratio of sexually available men to sexually available women in a population) as an important determinant of mating market conditions. They suggested that the availability of potential sexual partners, as determined by OSRs, should predict choosiness and competition within mating markets.

Pedersen (1991) provided further evidence for this assumption by investigating the differences between female-biased (i.e. more women than men) and male-biased (i.e. more men than women) populations. In doing so, Pedersen identified a number of commonalities. In female-biased populations, there tended to be more out-of-wedlock births, more permissive attitudes toward casual sex, more marital instability, higher divorce rates, and more women in the workforce. In contrast, male-biased societies tended to have higher marriage rates, more marital stability, less out-of-wedlock births, an emphasis on the role of women as mothers and wives, fewer women in the workforce, less permissive sexual attitudes, and a higher rate of sexual jealousy and domestic violence. Pedersen (1991) proposed that these vast differences were attributable to the mating-market conditions. Specifically, in female-biased populations, men are in limited supply and as such hold the bargaining power. As a result, women are at a disadvantage and must cater to men’s preferences in order to find a partner, therefore leading to a significant increase in sexual permissiveness and out-of-wedlock births. In male-biased populations, on the other hand, women are in limited supply and as such hold the bargaining power. In these
populations men are at a disadvantage and must cater to women’s preferences, therefore leading to higher marriage rates and less permissive sexual attitudes. In the latter scenario, the surplus of men is also associated with an increase in sexual jealousy, which is proposed to spur greater domestic violence.

While having drastic effects on interpersonal relationships, OSRs have also been shown to have a tremendous impact on social power. Perhaps the best illustration of this effect is cross-cultural research investigating dramatically skewed populations. China, for instance, has a dramatically male-biased population. This imbalance has been reportedly caused by cultural preferences for sons, sex-selected abortions, neglect of female children, and infanticide (Edlund, 1999; Guilmoto, 2007). As predicted by Pedersen (1991), this skewed sex ratio has resulted in increased marriage rates (particularly among women), fewer women in the workforce, a greater emphasis on the traditional roles of women, and a less sexually permissive society.

Pedersen (1991) has also noted different time periods within the history of the United States during which skewed sex ratios may have resulted in large cultural shifts. During the 1960’s and early 1970’s, the mating market within the United States became female-biased. This was due, in part, to the maturing “baby boomer” generation. As the men and women of this generation reached sexual maturity, the men started dating younger women, leaving women from the “baby boomer” generation to be in over-supply. This time period also coincided with the “sexual revolution.” Consistent with cross-cultural sex ratio research, the female-biased mating market may have resulted in more permissive sexual attitudes. While other factors, such as the introduction of oral contraceptives may have also contributed to the more permissive sexual attitudes during this time period, it is very likely
that the female-biased mating market also contributed to this cultural phenomenon. Directly following this time period, during the late 1970s and early 1980s, there was another shift in the mating markets in that it became more male-biased. This time period is associated with a peak in divorce rates (directly followed by a decline), and higher earning potentials for men. This time period is often referred to as the “era of greed,” which may reflect women’s preference for men with resources and high earning capacity (Pedersen, 1991).

Additional research investigating the social impact of biased sex ratios has explored its effects on consumer spending and debt. Griskevicius and colleagues (2012) made particular note of two cities within the United States: Macon and Columbus, Georgia. Though these cities are a mere 100 miles apart and share a similar history and climate, Columbus has some of the highest debt rates in the country, while Macon has some of the lowest. The one differing factor is that Macon, GA is female-biased and Columbus, GA is male-biased. Griskevicius and colleagues (2012) went on to explore the sex ratios in major metropolitan cities throughout the U.S. and found that male-biased sex ratios were consistently associated with higher debt rates and a greater number of credit cards owned. To clarify the association between spending habits and sex ratios, Griskevicius and colleagues (2012) then conducted a series of experimental studies using college students. He primed students to believe that their college was either female- or male-biased. He then tested to see if the sex ratio prime would impact their desire for rewards, their willingness to go into debt, and the amount they expected to spend on specific items. His results were astounding, and consistent with his correlational research: when primed to believe they were in a male-biased population, men were more likely to take an immediate reward, even
if it was less than a reward they would get at a later date, they were more willing to go into debt, and men and women both expected men to spend more on dinner dates, Valentines day gifts, and engagement rings.

Sex ratios appear to have dramatic effects on populations within the United States and China, but do these effects remain consistent across other cultures? To examine this question, Schmitt (2005) embarked on an impressive mission to investigate the correlates of OSRs across 48 different nations. His results supported the previous correlational and empirical findings related to sex ratios. In particular, OSRs were closely related to political and economic gender equality. Female-biased cultures tended to have more women in the workforce and in political positions than male-biased cultures. Furthermore, in cultures where women controlled more resources, girls’ achievement and aggression was encouraged, and their obedience was less encouraged. Additionally, sex ratios were also closely related to sociosexuality (i.e. willingness to engage in casual sex) in that female-biased sex ratios were associated with more permissive attitudes toward casual sex, and male-biased sex ratios were associated with less permissive attitudes toward casual sex.

**Sociosexuality.**

The term sociosexuality was coined by Alfred Kinsey and his research team in 1953, and was used to describe the variation in sexual behaviors among his research participants (Kinsey, Pomeroy, Martin, & Gebhard, 1953). It wasn’t until the early 1990’s, however, that this construct became an important and fruitful area of sexuality research. Simpson and Gangestad (1991) catapulted sociosexuality into popularity by creating the Sociosexual Orientation Inventory, which gave researchers a methodologically viable way of gauging individuals’ willingness to engage in casual sex. Through the development of this
inventory, Simpson and Gangestad identified two polar classifications of sociosexuality: unrestricted and restricted. Individuals with an unrestricted sociosexuality are those that require very little time and investment before engaging in casual sex, whereas sociosexually restricted individuals require a great deal of time and investment prior to engaging in sex. Through this initial research, they found that unrestricted individuals tend to have a larger number of lifetime sexual partners, a greater desire for casual sex, and more positive attitudes toward casual sex than restricted individuals; men tend to be more unrestricted than women; and there is more within sex variability in sociosexuality than there is between sex variability. Additionally, unrestricted individuals tend to place a greater emphasis on their sexual partners’ physical attractiveness and sexual appeal than restricted individuals (Simpson & Gangestad, 1992), while restricted individuals place more importance on qualities indicating good personal and parenting qualities (Simpson & Gangestad, 1992), warmth, trustworthiness, intimacy, and loyalty (Fletcher, Simpson, Thomas, & Giles, 1999). Previous research supporting this sex difference in sociosexuality is Clark and Hatfield’s (1989) study of casual sex offers which demonstrated that men are dramatically more likely to accept an offer of casual sex than women are.

Evolutionary theorists soon incorporated sociosexuality into Sexual Strategies Theory (Buss & Schmitt, 1993) and Parental Investment Theory (Trivers, 1972). Prior to the onslaught of sociosexuality research, evolutionary psychologists proposed that men, because of their lower minimal reproductive investment in comparison to women (i.e. ejaculation vs. pregnancy), will be more interested in casual sex with a larger number of partners and women will be more interested in gaining the investment of time and resources. Sociosexuality research, in particular the finding that there is more within sex
variation than between sex variation, illuminated a major flaw in these previous assumptions about men and women’s mating priorities.

The fact that men sometimes prioritize long-term mating strategies, and women sometimes prioritize short-term mating strategies introduced an interesting contradiction. To explain these findings, evolutionary theorists developed a new understanding of mating markets, which acknowledged that men and women are sensitive to their ecological surroundings, and are particularly constrained by their own mate value in comparison to their rivals’ mate value. In situations where a man is high in relative mate value, and the ecological conditions, in terms of parasite prevalence, resources, and sex ratios, are in his favor, he will express a more unrestricted sociosexuality. In contrast, if the conditions are not in a man’s favor and/or he is relatively low in mate value, he will express a more restricted sociosexuality. Because of the reported desire of women for investment and resources, eliciting the latter strategy is hypothesized to be a way of increasing a man’s mate value if he is unsuccessful in attracting casual sex partners. Alternatively, if a woman’s mate value and the ecological conditions are favorable, she will typically develop a restricted sociosexual orientation. Conversely, if she has a relatively low mate value and/or the ecological conditions are not favorable, she will develop a more unrestricted sociosexuality as a means of gaining immediate (though not long term) male investment, therefore increasing her chances of reproduction. Schmitt and Buss (2001) also propose that women may benefit from short-term sexual relationships because they can evaluate other potential mates and, if favorable, engage in mate switching.

As a construct, sociosexuality has a number of strengths. Particularly notable is its illustration of within sex variation of sexual proclivities, and (in conjunction with OSRs) its
relationship to conditional mating strategies. However, as with most psychological constructs, it also has a number of weaknesses. Specifically, it is unclear how sociosexuality is developed. Both biological and social theories are used to explain the expression of sociosexuality, but how they relate to or invalidate each other is uncertain. Research connecting OSRs to sociosexuality make a strong claim that social environments (i.e., mating markets) have a deep impact on the expression and development of sociosexuality (Schmitt, 2005). This research suggests that individuals are aware of current mating market conditions and of their relative status within those conditions, thus experiences (i.e. successes and failures) within these markets may lead to the development of sociosexuality.

Research with twins has shown that monozygotic twins have more highly correlated sociosexuality than dizygotic twins, suggesting that sociosexuality may be at least partially genetic (Bailey, Kirk, Zhu, Dunne, & Martin, 2000). Additional research has linked testosterone to sociosexuality by showing that individuals with a lower second to fourth digit ratio (2D:4D; a sign of higher testosterone and lower estrogen) tend to report a more unrestricted sociosexuality (Clark, 2004). Furthermore, women with a more masculine gender ideology also tend to be more unrestricted (Mikach & Bailey, 1999), perhaps providing further evidence for the link between testosterone and sociosexuality. Taken together, this evidence suggests that sociosexuality may be developed through a combination of ecological and biological factors.

**Critiques of Evolutionary Psychology**
Evolutionary theorists hold steadfast to the idea that men and women differ in the domains in which they have faced different adaptive problems over time – thus providing a foundation for sexual strategies research (Buss, 1995). Recent research has begun to contest many of the basic assumptions set forth by these theorists. For example, one of the major tenets of evolutionary psychology is the proposition that men prefer casual sex because it allows them to maximize their reproductive potential. However, current literature suggests that both long-term and short-term relationships tend to result in an equal amount of progeny (Begley & Interlandi, 2009). Further contributing to these critiques, feminist scholars argue that evolutionary psychology's essentialist view of gender is premature in its assumptions that biology is the central concern in human mating markets (Branscombe, 2010; Silverstein, 1996). Among the major critiques of evolutionary psychology is the fact that there is no way to definitively prove that our current behaviors are attributable to the behaviors that our ancestors found most adaptive. Feminist scholars, in response to this argument, promote the concept that behaviors may be a cultural artifact, as opposed to an evolutionary adaptation (see Biosocial Construction Theory; Eagly & Wood, 1999). As such, feminist theories often explain gender differences as a result of overarching social structures, and individuals’ membership in dominant and/or subordinate groups (Smith & Konik, 2011). Presently, in nearly every culture across the globe, men hold more status, power, and resources than do women (Helgeson, 2012). This begs the question, if women had the same amount of power that men do, would we still see the same supposedly innate sexual preferences proposed by evolutionary theorists, or would we witness a shift in behaviors and attitudes?

**Sex and Power**
Sex and power are inextricably linked. But why is it the case that sex and power go seemingly hand-in-hand? More recent research into this question has proposed that there may be a cognitive link between these two constructs. Evidence supporting this link was provided by Pryor and Stoller (1994) in a study through which they demonstrated how priming people to think about power often led them to think about sex. Researchers also propose that having power may promote goal pursuit (Galinsky, Gruenfeld, & Magee, 2003; Galinsky, Magee, Inesi, & Gruenfeld, 2006; Guinote, 2007), particularly the pursuit of mating goals, which are closely associated with the approach system (Depue, 1995).

**Power and Sexual Attraction.**

As Henry Kissinger once said, “power is the ultimate aphrodisiac.” Accordingly, power has been shown to influence both one’s attraction to others, as well as one’s expectations of sexual interest from others (Kunstman & Maner, 2011). This is particularly true among sexually unrestricted (i.e., those with a high willingness to engage in casual sex) individuals. These individuals tend not only to perceive sexual interest from others, but also to engage in more sexualized behavior towards others as well. This behavior ranges from making eye contact, initiating physical contact, invading personal space, and initiating other approach behaviors (Keltner, Gruenfeld, & Anderson, 2003). Individuals with power are also more likely to be sexually aggressive and to sexually harass their subordinates (Bargh, Raymond, Pryor, & Strack, 1995).

Research investigating how power influences sexual behavior also paints a complicated picture when considering the interaction of power and gender. A virtually endless list of anecdotal examples come to mind when one thinks about high-power individuals and their sexual exploits: Nicolas Sarkozy and Carla Bruni, Donald Trump and
Melania Trump, Tom Cruise and Katie Holmes, Iced T and Coco... the list goes on. The common factor in many of these relationships is that the men typically have more power and status than their female counterparts (who are often referred to as “trophy wives”; Kenrick, Trost, & Sheets, 1996). As demonstrated by previous research, and illustrated by these anecdotal examples, men with power typically prefer physically attractive, younger women (Kenrick, Trost, & Sheets, 1996). However, there is virtually no research to date that demonstrates what qualities women with power desire in their sexual partners.

**Sex-As-Power.**

When considering the influence of power on sexual behaviors, recent literature has begun to explore a sex-as-power model of human sexual behaviors. Specifically, several studies have proposed that women view sexuality as a tradable commodity, begetting what is now referred to as Sexual Economics Theory (Baumeister & Vohs, 2004; Rudman & Fetterolf, 2014). This literature proposes that women, who historically have less power than men, may use sex as a means to gain more social status and power. Cultural research on the portrayals of women in the media has also concluded that this sex-as-power narrative is pervasive for female TV characters (Cato, 2012). This proposition has also been examined in the context of Sexual Exchange Theory, which asserts that individuals with less power in a relationship (usually women) may use sex as a way to offer rewards to their more powerful partners. In this sense sex is used as a means to equalize the relationship (Edwards, Barber, & Dziurawiec, 2014). However, despite the anecdotal evidence provided in support of this sex-as-power model, research exploring the utility of sex has presented conflicting results and is thus inconclusive at this time.
Further research examining the effects of power and gender on sexual behaviors has also considered power as a sexual motive by investigating individuals’ sexually dominant (i.e., sexual initiation behaviors) and submissive (i.e., the tendency to act in response to ones’ partner’s sexual desires) behaviors (Browning, Kessler, Hatfield, & Choo, 1999). This research found that while dominance was associated with usual sexual behavior across gender, submission was associated with usual sexual behavior for women, and abstinence for men. This latter finding suggests that submission involves regard for one’s partner’s desires. According to Sexual Strategies Theory, women typically desire less sex than men do, therefore men with a submissive sexual motive should be more prone to abstinence; whereas submissive women should be more prone to engaging in usual sexual behaviors. Interestingly, these patterns of sexual behaviors are consistent with the patterns predicted for sociosexuality (i.e., willingness to engage in casual sex) in skewed sex ratio populations. Specifically, when men are at an advantage because they are in shorter supply, women must adhere to men’s sexual preferences in order to increase their chances of obtaining a sexual partner; whereas when women are in shorter supply, men must adhere to women’s sexual preferences in order to increase their chances of obtaining a sexual partner. Could we therefore argue that in skewed mating markets, the sex in limited supply has more power than the sex in oversupply, and that this power is what drives the sexual behaviors and preferences that are typically seen in these mating markets, as opposed to the skewed sex ratio alone?

**Present Research**

The present research seeks to investigate the role of power in sexual attraction, as well as the combined role of ecological factors (i.e., sex ratio), gender, and power on
conditional mating strategies. In Study 1, participants were randomly assigned to a high-power or low-power condition in an effort to explore how power influences participants’ perception of their own mate value, the mate value of realistically attainable partners, and sociosexuality. In Study 2, participants were once again randomly assigned to a high-power or low-power condition, after which their attraction to faces in a series of facial arrays were recorded, along with their personal beliefs of whether their attraction to these individuals would be reciprocated. Finally, in Study 3, participants were introduced to one of two ecological conditions: female-biased or male-biased. In these imagined scenarios, participants reported the strategies they would consciously choose to elicit in order to obtain a sexual partner, and resulting feelings of power, sociosexuality, and participants’ perception of their own mate value, and the mate value of realistically attainable partners were also measured.
**Study 1: Power and Mate Value**

Study 1 explored how feelings of power influenced individuals’ perception of their own mate value, the mate value of realistically attainable mates, and preference for short-term and/or long-term relationships in an experimental setting. Participants in this study were randomly assigned to one of two conditions: high-power or low-power; and were primed for their power condition using a narrative writing task, which asked participants to write about a time in which they felt they had power over others (high-power condition), or someone had power over them (low-power condition). This priming technique has been successfully implemented in previous power literature (Galinsky, Gruenfeld, & Magee, 2003). After this priming task, participants were asked to complete a brief survey, which included questions about their perceptions of their own mate value, the mate value of realistically attainable sexual partners, their attitudes and desires toward casual relationships, and whether they would be interested in a short-term or long-term relationship.

**Perceived Mate Value of Self and Realistically Attainable Partners**

Previous research has demonstrated that powerful individuals tend to overestimate others’ attraction toward themselves (Kuntsman & Maner, 2011). Based on this evidence, we expected that participants in the high-power condition, in comparison to those in the low-power condition, would report a higher perceived mate value (i.e., their personal value as a mate in comparison to other potential mates; Hypothesis 1). To test this hypothesis, participants completed the Components of Mate Value Scale (Fisher, Cox, Bennett, & Gavric, 2008), which addresses several factors related to mate value. Higher scores on this scale indicate a higher self-perceived mate value. Furthermore, due to the relationship between
power and self-perception, we anticipated that participants in the high-power condition, in comparison to those in the low-power condition, would have a more positive self-concept (i.e., would think highly of themselves; Hypothesis 2). To test this hypothesis, participants completed the Self-Attributes Questionnaire (Pelham & Swann, 1989). Higher scores on this scale indicate a more positive self-concept.

Following the prediction that individuals in the high-power condition would have a higher self-perceived mate value, we also anticipated that this increased mate value would influence the quality of the mates that individuals in the high-power condition would perceive as attainable. Therefore, we predicted that participants in the high-power condition, in comparison to those in the low-power condition, would perceive themselves as being capable of attaining a higher quality mate (Hypothesis 3). To test this hypothesis, participants completed three subscales of the Mate Value Inventory-7 (Kirsner, Figuerdo, & Jacobs, 2003). Specifically, participants responded to questions regarding their own mate value, the mate value of a realistically attainable short-term partner, and the mate value of a realistically attainable long-term partner. Higher scores on these subscales indicate greater mate value.

**Desire for Long-Term vs. Short-Term Relationships**

One of the leading theories regarding the connection between power and sex involves the role of approach/avoidance behaviors. Specifically, high-power individuals are supposedly more motivated to approach and pursue their goals. According to Sexual Strategies Theory, women will most often be interested in pursuing a long-term relationship (Buss & Schmitt, 1993). Thus, if power motivates individuals to pursue their goals, we expected to see an increased preference for long-term relationships among
women in the high-power condition (Hypothesis 4a). Similarly, men in the high-power condition are expected to report a greater preference for short-term relationships, in comparison to men in the low-power condition (Hypothesis 4b). This is also based on the assumptions of Sexual Strategies Theory, which predicts that men are particularly interested in pursuing short-term sexual relationships (Buss & Schmitt, 1993). Thus, if power motivates individuals to pursue their goals, men in the high-power condition should be motivated to pursue short-term relationships. To assess these hypotheses, participants completed the Preferences and Motivations With Regard to Short-Term and Long-Term Mating Scale (Landolt, Lalumière, Quinsey, 1995), which specifically addresses individuals’ reported preference for short-term or long-term relationships, and the Sociosexual Orientation Inventory – Revised (Penke & Asendorpf, 2008), which assesses individuals’ willingness to engage in casual sex.

**Methods**

**Participants**

Approximately 176 participants were recruited from the University of Hawaii at Manoa, 59% of which were female with a mean age of 20.19. These statistics represent the sample after 33 participants were excluded from the data analyses because they identified as a sexual orientation other than heterosexual (i.e., homosexual, bisexual, pansexual, asexual, other, or failed to report a sexual orientation). Participants were from a diverse range of ethnic backgrounds, with the majority identifying as Caucasian (26.6%), Japanese (22.0%), and Filipino (13.3%). See Table 1.1 for ethnic diversity of study participants. Participants received either extra credit or course credit in exchange for their participation in this study.
Table 1.1
Study 1 Participant Demographics

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>72</td>
<td>40.9</td>
</tr>
<tr>
<td>Female</td>
<td>104</td>
<td>59.1</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>2.3</td>
</tr>
<tr>
<td>Caucasian</td>
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<td>26.6</td>
</tr>
<tr>
<td>Chinese</td>
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<td>11.0</td>
</tr>
<tr>
<td>Filipino</td>
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<td>13.3</td>
</tr>
<tr>
<td>Hawaiian/Part Hawaiian</td>
<td>15</td>
<td>8.7</td>
</tr>
<tr>
<td>Hispanic/Latino/Mexican American</td>
<td>8</td>
<td>4.6</td>
</tr>
<tr>
<td>Japanese</td>
<td>38</td>
<td>22.0</td>
</tr>
<tr>
<td>Korean</td>
<td>8</td>
<td>4.6</td>
</tr>
<tr>
<td>Other Asian</td>
<td>4</td>
<td>2.3</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>4</td>
<td>2.3</td>
</tr>
<tr>
<td>Indian</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>Portuguese</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>Relationship Status</strong></td>
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<td></td>
</tr>
<tr>
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<td>51.1</td>
</tr>
<tr>
<td>Dating exclusively</td>
<td>70</td>
<td>40.2</td>
</tr>
<tr>
<td>Married/cohabitating</td>
<td>8</td>
<td>4.6</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4.0</td>
</tr>
</tbody>
</table>

*Note: Sexual Orientation was not included in this table as only heterosexual individuals were included in the analyses*

**Design**

This study was developed as a two (participant gender) by two (power condition) between-subjects design. Participants were randomly assigned to either a low-power or high-power condition using Qualtrics, an online survey software program. See Table 1.2 for the distribution of participants within these conditions.
Table 1.2
Distribution of Participants by Power Condition and Gender

<table>
<thead>
<tr>
<th>Power Condition</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Power</td>
<td>35</td>
<td>60</td>
<td>95</td>
</tr>
<tr>
<td>Low-Power</td>
<td>37</td>
<td>44</td>
<td>81</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>104</td>
<td>176</td>
</tr>
</tbody>
</table>

**Measures**

**Power Prime.** Participants were primed for either the high- or low-power conditions using a narrative writing task. This priming procedure entails thinking of a time in which the participant either had power over another individual (high-power condition) or someone had power over them (low-power) and writing a brief narrative of this memory. This priming procedure has been successfully used in previous power literature (Galinsky, Gruenfeld, & Magee, 2003; see Appendix A).

**Self-Attributes Questionnaire (SAQ).** This 40-item measure was designed to assess individuals’ feelings of global self-esteem (Pelham & Swann, 1989). Participants rated themselves, in comparison to other college students, on 10 dimensions: intellectual ability, social skills, artistic ability, athletic ability, physical attractiveness, leadership, common sense, emotional stability, luck, and discipline. Ratings of these dimensions will be made on a nine-point Likert scale ranging from bottom five percent to top five percent. Scores for each of these items are summed to create a single SAQ score. Higher values are indicative of a positive self-concept, while lower values are indicative of a negative self-concept. Previous research has found this measure to be internally consistent ($\alpha = .76$; Pelham & Swann, 1989) and to possess good test-retest reliability ($r(50) = .77$; Swann, De La Ronde, & Hixon, 1994; see Appendix B).
Mate Value Inventory-7 (MVI-7). This 19-item measure was designed to assess individuals’ self-perceived mate value, and the mate value of their friends and potential partners (Kirsner, Figuerdo, & Jacobs, 2003). The MVI-7 consists of seven potential rating forms, through which participants must assess their own mate value and the mate value of others. These include the Self Rating form, Real Friend rating form, Ideal Friend rating form, Attainable Short-Term Partner rating form, Ideal Short-Term Partner rating form, Attainable Long-Term Partner rating form, and Ideal Long-Term partner rating form. For the purposes of this study, participants will complete three of these forms: Self Rating form (e.g., “Describe yourself as accurately as possible”), Attainable Short-Term Partner form (e.g., “Given what you have to offer, describe the qualities of the best partner you think you can realistically attract for a brief relationship or fling”), and Attainable Long-Term Partner form (e.g., “Given what you have to offer, describe the qualities of the best partner you think you can realistically attract for a long-term (several years or more) romantic relationship”). Participants rated their assessment of each trait on a seven-point Likert scale, ranging from -3 (extremely low on this trait) to +3 (extremely high on this trait). Sample traits from this scale include “ambitious,” “emotionally expressive,” “good parenting skills,” “have sex appeal/sexy,” and “social status.” This scale was reported to have good internal consistency, ranging between .86-.91 (Kirsner, Figuerdo, & Jacobs, 2003; see Appendix C).

Components of Mate Value Survey (CMVS). This 22-item scale was designed to measure the various components that influence individuals’ mate-value (Fisher, Cox, Bennett, & Gavric, 2008). The factors reflected in this scale include: views of the opposite sex (e.g., “Members of the opposite sex that I like tend to like me back.”), sociality (e.g., “I
run into friends wherever I go.”), parenting (e.g., “I want to have children in my lifetime.”), wealth (e.g., “I want people to think that I am wealthy.”), looks (e.g., “I would like members of the opposite sex to consider me physically attractive.”), relationship history (e.g., “After I date someone they often want to date me again.”), and fear of failure (e.g., “I would like members of the opposite sex to hit on me more than they do.”). Participants rated their assessment of each trait on a Likert scale of 1 (strongly disagree) to 7 (strongly agree). Scores for this measure are summed, with higher scores indicating a greater personal mate value. This scale was shown to have good internal consistency (α = .83; Fisher, Cox, Bennett, & Gavric, 2008; see Appendix D).

Preferences and Motivations with Regard to Short-Term and Long-Term Mating. This eight-item measure assesses individuals’ interest in engaging in a short-term or long-term relationship (Landolt, Lalumière, Quinsey, 1995). Sample items in this measure include “Ideally, I would have many sexual partners,” and “I prefer a long-term relationship with one partner.” Consistency and reliability measures are unavailable for this scale (see Appendix E). While participants provided responses to all eight of the items in this measure, only two items from this scale were used for analysis purposes: “I prefer short-term sexual relationships,” and “I prefer a long-term relationship with one person.”

Sociosexual Orientation Inventory-Revised (SOI-R). The SOI-R (Penke & Asendorpf, 2008), which is a shortened version of the original Sociosexual Orientation Inventory (SOI; Simpson & Gangestad, 1991), is being used in this study because this version of the measure does not require respondents to be involved in an ongoing romantic relationship. This nine-item questionnaire assesses individuals’ previous sexual experiences, opinions regarding casual sex, and frequency of sexual fantasies. This scale
consists of three sub-scales: previous casual sex behaviors (e.g., "With how many different partners have you had sex within the past 12 months"), desire for casual sex (e.g., "In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met"), and attitudes toward casual sex (e.g., "Sex without love is OK"). Participants indicated their agreement with the items in this scale using a nine-point Likert scale, ranging from 1 (strongly disagree) to 9 (strongly agree). Scores for these items are summed, with higher SOI-R scores indicating that the individual is more willing to engage in short-term, casual sexual relationships, whereas lower SOI-R scores indicate less willingness to engage in casual sex, as well as a greater preference for committed sexual relationships. This sum score is on a continuum, with no pre-set cut-off scores for what is considered unrestricted or restricted. This scale was shown to have good internal consistency (α = .83; Penke, 2011; see Appendix F).

Demographics. Participants provided demographic information regarding their gender (e.g., male, female, trans*, etc.), sexual orientation (e.g., heterosexual, homosexual, pansexual, asexual, etc.), age, religiosity, college major, class standing, and ethnic background (see Appendix G).

Procedure

This study was conducted using Qualtrics, an online survey software program. Participants signed up to participate in this study using Sona, an online participant pool used by the Psychology Department at the University of Hawaii at Manoa. Confidentiality was maintained throughout this study by using participants’ randomly assigned Sona ID number as their participant ID. No identifiable information was obtained during the course of this study. Upon completing the online consent form (see Appendix H), participants were
randomly assigned to either the low-power or high-power condition by the software program. Participants were first presented with a writing prompt, which in accordance with their randomly assigned power condition, directed participants to think about a time in their lives when they had power over another person (high-power condition) or someone had power over them (low-power condition) and to write a brief narrative about that memory. After completing this writing task, participants then completed the MIV-7, CMVS, SAQ, preferences for long-term or short-term relationship scale, SOI-R, and the demographics questionnaire. The ordering of these scales was randomized. Due to the nature of the prime used, the effects of the prime will dissipate over time. Thus, the ordering of the measures reflects the variables of greatest interest.

**Analyses**

A two-way MANOVA was performed in order to determine the influence of participant gender and power condition (i.e. low-power or high-power) on participants’ SAQ, MIV-7, CMVS, relationship type preference, and SOI-R scores. Prior to conducting this MANOVA, participants’ responses to the SAQ, CMVS, and relationship type preference were summed. The SOI-R and MVI-7, however, require a slightly different procedure when computing scores, as both of these measures are comprised of meaningful subscales that address different components of willingness to engage in casual sex and mate value, respectively. For the SOI-R, items 1-3 are summed to create a Behavior facet, items 4-6 are summed to create an Attitude facet (after item 6 has been reverse coded), and items 7-9 are summed to create a Desire facet. Each of these subscales can be analyzed separately, or added together to create a singular sociosexuality score. Each of these subscales, as well as the overall sociosexuality score, was entered into the MANOVA. Three separate subscales
were created using the data from the MVI-7. Items 1-19 were averaged to create the personal mate value subscale; items 20-39 were averaged to create the attainable short-term partner subscale; and items 40-59 were averaged to create the attainable long-term partner subscale.

**Results**

A two-way MANOVA was conducted in order to test the various hypotheses proposed in this study. Gender and power condition were included as fixed factors in this analysis, while mate value (as measured by MVI-7 and CMVS), self-concept (as measured by SAQ), and willingness to engage in casual sex (as measured by SOI) were included as dependent variables (see Table 1.3). According to this analysis, there was a main effect of gender on attitudes toward casual sex (SOI attitudes subscale; \( F(1,142) = 4.785, p = .030, \eta^2 = .032 \)), desire for casual sex (SOI desire subscale; \( F(1,142) = 31.747, p < .001, \eta^2 = .180 \)), and overall willingness to engage in casual sex (SOI sum score; \( F(1,142) = 20.768, p < .001, \eta^2 = .125 \)). For each of these outcomes, male participants tended to have higher scores than female participants, suggesting that males had more positive attitudes toward, a greater desire for, and overall greater willingness to have casual sex. There was also a main effect of power on each of these three outcome variables as well, but not in the predicted directions. Specifically, being in the low-power condition tended to result in more positive attitudes toward (\( F(1,142) = 4.699, p = .032, \eta^2 = .031 \)), a greater desire for (\( F(1,142) = 5.666, p = .019, \eta^2 = .032 \)), and overall greater willingness to engage in casual sex (\( F(1,142) = 6.541, p = .012, \eta^2 = .039 \)), in comparison to those in the high-power condition. See Figures 1.1, 1.2, and 1.3. Additionally, there was a main effect of gender on preference for a short-term relationship, with males expressing a greater overall desire for casual sexual
relationships than females, regardless of power condition \( F(1,142) = 12.013, p = .001, \eta^2 = .125 \). There were no significant interactions between gender and power for any of the outcome variables assessed.

Figure 1.1
Effects of Power and Gender on Attitudes Toward Casual Sex

![Sociosexual Attitudes graph showing the effects of power and gender on attitudes towards casual sex.](image)
Figure 1.2
Effects of Power and Gender on Desires for Casual Sex

Figure 1.3
Effects of Power and Gender on Overall Willingness to Engage in Casual Sex
Table 1.3
Effects of Gender and Power on Sociosexuality, Mate Value, Self-Concept, and Relationship Preferences

| Dependent Variable | Gender | | | Power Condition | | |
|--------------------|--------|--------|--------|-----------------|--------|--------|--------|
|                    | Male   | Female |        | High            | Low    |        |        |
|                    | $M$    | $SD$   | $M$    | $SD$           | $M$    | $SD$   | $F$    |
| SOI Behavior       | 7.586  | 5.130  | 6.524  | 3.876           | 6.600  | 3.621  | 1.816  |
| MVI-7 (Self)       | 1.611  | .676   | 1.576  | .651            | 1.615  | .653   | 1.562  |
| MVI-7 (ST)         | 1.764  | .765   | 1.823  | .611            | 1.893  | .667   | 1.698  |
| MVI-7 (LT)         | 1.956  | .741   | 2.034  | .574            | 2.064  | .644   | 1.933  |
| SAQ (Self vs.     | 68.310 | 9.823  | 66.124 | 9.874           | 66.347 | 8.957  | 1.404  |
| College)           |        |        |        |                 |        |        |        |
| SAQ (Ideal)        | 72.724 | 15.091 | 70.524 | 15.209          | 72.133 | 14.989 | .910   |
| SAQ (Discrepancy)  | 4.414  | 14.468 | 4.309  | 14.962          | 5.787  | 15.289 | .035   |
| CMVMS              | 100.776| 19.781 | 95.881 | 19.438          | 98.040 | 19.090 | 2.307  |
| ST preference      | 2.97   | 1.737  | 2.04   | 1.392           | 2.27   | 1.607  | 12.013** |
| LT preference      | 6.02   | 1.221  | 6.22   | 1.240           | 6.18   | 1.328  | .853   |

$p < .05$, **$p < .01$, ***$p < .001$
Two further one-way MANOVAs were conducted in order to determine the separate effects of power condition on men and women separately. Through these separate analyses, it was concluded that power condition had no main effect on any of the outcome variables for males. However, there was a main effect of power condition on attitudes toward casual sex (SOI attitudes subscale; \( F(1,83) = 8.915, p = .004, \eta^2 = .099 \)) desire for casual sex (SOI desire subscale; \( F(1,83) = 4.561, p = .036, \eta^2 = .053 \)), and overall willingness to engage in casual sex (SOI sum score; \( F(1,83) = 6.640, p = .012, \eta^2 = .076 \)) for female participants (see Table 1.4). Similarly to the results for the overall sample, being in the low-power condition tended to result in more positive attitudes toward, a greater desire for, and overall greater willingness to engage in casual sex, in comparison to those in the high-power condition.

Additionally, there appeared to be a nearly significant main effect of power on beliefs regarding the mate value of realistically attainable short-term partners (as measured by MVI-7 short term subscale; \( F(1, 83) = 2.820, p = .097, \eta^2 = .006 \)). Specifically, women in the high-power condition believed that they could realistically attain a short-term partner with a higher mate value than those in the low-power condition (see Figure 1.4). Male participants’ data on this particular item trended in the same direction, but did not approach significance.
Table 1.4
Effects of Power on Sociosexuality, Mate Value, Self-Concept, and Relationship Preference for Female Participants

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Power Condition</th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOI Behavior</td>
<td>6.404</td>
<td>3.597</td>
<td>6.676</td>
<td>2.250</td>
<td>.108</td>
</tr>
<tr>
<td>SOI Attitude</td>
<td>12.128</td>
<td>3.826</td>
<td>14.487</td>
<td>3.088</td>
<td>8.915**</td>
</tr>
<tr>
<td>SOI Desire</td>
<td>7.340</td>
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<td>10.027</td>
<td>6.278</td>
<td>4.561*</td>
</tr>
<tr>
<td>SOI Sum Score</td>
<td>25.872</td>
<td>8.023</td>
<td>31.189</td>
<td>10.480</td>
<td>6.640*</td>
</tr>
<tr>
<td>MVI-7 (Self)</td>
<td>1.625</td>
<td>.637</td>
<td>1.514</td>
<td>.673</td>
<td>.459</td>
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<tr>
<td>MVI-7 (ST)</td>
<td>1.932</td>
<td>.611</td>
<td>1.694</td>
<td>.593</td>
<td>2.820</td>
</tr>
<tr>
<td>MVI-7 (LT)</td>
<td>2.111</td>
<td>.582</td>
<td>1.936</td>
<td>.556</td>
<td>1.662</td>
</tr>
<tr>
<td>SAQ (Self vs. College)</td>
<td>65.957</td>
<td>9.332</td>
<td>66.541</td>
<td>10.645</td>
<td>.070</td>
</tr>
<tr>
<td>SAQ (Ideal)</td>
<td>71.362</td>
<td>15.278</td>
<td>69.460</td>
<td>15.264</td>
<td>.220</td>
</tr>
<tr>
<td>SAQ (Discrepancy)</td>
<td>5.404</td>
<td>15.289</td>
<td>2.922</td>
<td>14.624</td>
<td>.428</td>
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<td>CMVS</td>
<td>97.255</td>
<td>20.149</td>
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<td>18.622</td>
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<tr>
<td>ST preference</td>
<td>2.02</td>
<td>1.513</td>
<td>2.05</td>
<td>1.246</td>
<td>.011</td>
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<tr>
<td>LT preference</td>
<td>6.22</td>
<td>1.397</td>
<td>6.22</td>
<td>1.031</td>
<td>.000</td>
</tr>
</tbody>
</table>

* $p < .05$, **$p < .01$, ***$p < .001$

Figure 1.4
Effects of Gender and Power on Mate Quality of Realistically Attainable Short-Term Partner
Discussion

The predictions that being in the high-power condition would result in higher perceived mate value (Hypothesis 1) and higher self-concept (Hypothesis 2) were not supported. Hypothesis 3, which predicted that those in the high-power condition would believe that they could attract a higher quality mate than those in the low-power condition, was only partially supported. There was no main effect of power condition or gender on the perceived mate value for either short-term or long-term contexts. However, when examining the data for female participants separately, it appears that there was a nearly significant main effect of power condition on mate value in a short-term mating context. In other words, female participants who were primed to feel powerful believed that they could attain a much more high quality short-term mate than those in primed to be powerless. Beliefs about their ability to obtain a high quality mate for a long-term relationship trended in a similar direction, such that female participants in the high-power condition perceived themselves as also being capable of obtaining a higher quality mate than those in the low-power condition. However, this was not a statistically significant difference. These results suggest that feelings of power can influence the quality of mate that one perceives as realistically attainable.

Additionally, predictions about a potential interaction between gender and relationship preferences (LT vs. ST; Hypotheses 4a and 4b) were only partially supported. Specifically, we predicted that if power activates goal pursuit, and women are inherently more interested in long-term sexual partners, then women in the high-power condition should demonstrate a greater interest in long-term relationships than women in the low-power condition. To assess this prediction, we investigated several outcome variables,
particularly overall willingness to engage in casual sex and two independent items that asked participants the degree to which they preferred long-term or short-term relationships. When looking at the full dataset, it appears as though there was a main-effect of gender on preference for short-term relationships, though not for preference for long-term relationships. Specifically, male participants reported a greater preference for short-term relationships than female participants typically did. This is not altogether surprising as this is a commonly reported finding (Schmitt & Buss, 1996). There was not, however, a main effect of power condition or an interaction between gender and power condition for either of these outcome variables.

When examining female participants’ data separately, it appears that there was not a main effect of power condition on either preference for short-term or long-term relationships. Based on these findings alone, it appears as though relationship preferences are not impacted by feelings of power. However, when examining overall willingness to engage in casual sex (as measured by SOI sum score, SOI behavior, SOI desires, and SOI attitudes), results demonstrate that being primed to feel powerful led female participants to be less interested in casual sex, in comparison to those who were primed to feel powerless. This finding at least partially supports the assertion that power has the ability to activate goal pursuit behaviors and attitudes, thus impacting mating preferences.

Similarly to the previous hypothesis, Hypothesis 4b predicted that men in the high-power condition would report a greater interest in short-term relationships than men in the low-power condition. As mentioned previously, male participants, regardless of power condition, reported a greater interest in short-term relationships than female participants did. Contrary to this prediction, however, there was no difference between power
conditions for male participants in terms of their preference for short-term relationships. Additionally, though there was not a significant difference between power conditions for short-term relationship preference, the data did not trend in the predicted direction. Specifically, men in the low-power condition reported a greater interest in short-term relationships than those in the high-power condition.

It is unclear why the data trended in this direction. Sexual Strategies Theory predicts that males have an inherent preference for short-term relationships and will regularly choose these relationships if given the chance (Schmitt & Buss, 1996). This theory, coupled with the assertion that power promotes goal pursuit, should have resulted in males in the high-power condition having a greater interest in short-term relationships than those in the low-power condition. One potential explanation for this outcome may be that the sample who signed up to participate in this study, which was titled “What’s Love Got To Do With It?: Attitudes on Romantic Relationships Study,” may have been more interested in long-term relationships than the general population. Another, albeit less likely explanation considering previous literature, is that perhaps males and females both prefer long-term relationships to short-term relationships and will strive for this type of relationship if given the choice. A third explanation may be that males pursue short-term relationships as a way of obtaining power and status. There is, in fact, some evidence suggesting that men are pressured into casual sex as a way to demonstrate masculinity (Edwards, Barber, & Dziurawiec, 2014).

In further exploration of these final hypotheses, overall willingness to engage in casual sex was also examined. As mentioned previously, there was both a main effect of gender and power condition on the various sociosexuality variables. There was, however,
no significant interaction between these factors for these outcome variables. Specifically, and in accordance with previous literature, men tended to report greater overall desire, more positive attitudes toward, and greater overall willingness to engage in casual sex than women did, regardless of power condition. Interestingly, and once again contradictory to the initial predictions made for this study, being in the low-power condition also resulted in a greater overall desire for, more positive attitudes toward, and greater overall willingness to engage in casual sex. This is counter-intuitive, as previous literature has suggested that people with power often act sexually inappropriately toward others (Keltner, Gruenfeld, & Anderson, 2003). If the data collected in this study is accurate, it suggests that power may actual curb interest in casual sex, or that individuals use casual sex as a means to gain power.

Taken together, the information obtained in this study about the influence of power on sexual attitudes and mate value present an interesting picture. Specifically, this data suggests that perhaps powerful people are not indiscriminate in their sexual attraction to others. Furthermore, being powerful may actually result in lesser willingness to engage in casual sex because powerful individuals may be holding out for a sexual partner with a relatively high mate value. In other words, perhaps power leads to greater partner selectivity, rather than overt sexual behaviors and attitudes. Alternatively, individuals (particularly women) without power may use casual sex as a means to obtain power from others (Baumeister & Vohs, 2014).

Limitations

One major limitation of the methodology used in this study is that individuals may experience varying degrees of powerfullness or powerlessness in response to their writing
task. Furthermore, asking individuals to recall a time when someone had power over them, or when they had power over someone else, may prime for more than just power. For example, completing this priming task may also make feelings of guilt and shame more salient, depending on the particular memory. These potential confounding variables were not assessed in this study. Additionally, as with many other psychological studies, this research is limited in its generalizability because the sample used consisted solely of college students, who are not only younger than the general population, but also tend to be more educated, wealthier, and more liberal (Foot & Sanford, 2004). Thus, findings with a college-aged sample may differ drastically from a similar study conducted with older individuals. Moreover, the sample used in this study is more ethnically diverse than the general population of the United States, and also includes fewer Hispanics and African Americans. To ensure the reliability of these findings, future research should attempt to replicate this study with different populations and cultures.


**Study 2: Power and Attraction**

Previous research has not only shown that power influences how individuals view themselves, but also how individuals behave towards others (Keltner, Gruenfeld, & Anderson, 2003; Kunstman & Maner, 2011). In Study 1, we examined how power influences individuals’ assessments of their own mate value (i.e., their value as a romantic and/or sexual partner) and self-concept, as well as the mate value of short-term and long-term partners they see as realistically attainable. Study 2 continues to explore the far-reaching effects of power on human sexual behaviors and attitudes by examining how power influences attraction toward others and expectations of attraction from others. It is well documented that power influences approach behaviors, particularly in the context of sexual attraction (Kuntsman & Maner, 2011). The current study explores how power influences individuals’ attraction to specific faces and whether individuals expect that the individuals they find attractive would also be attracted to them in return (i.e., reciprocated attraction). Additionally, Study 2 examines whether power influences the specific facial features that individuals are attracted to. Specifically, whether the masculinity or femininity of an individuals’ facial features influences the attraction that a high-power or low-power individual feels toward that face.

**Attraction to Facial Arrays**

Considering these previous findings, it is anticipated that individuals in the high-power condition, in comparison to those in the low-power condition, will be attracted to a greater number of faces (Hypothesis 1) and will be more likely to expect their attraction to be reciprocated (Hypothesis 2). To test this second hypothesis, participants will be asked
how likely it would be that their attraction to the selected individuals would be reciprocated.

According to evolutionary theorists, women who value investment in a relationship may actually prefer less masculine faces (Gangestad, Haselton, & Buss, 2006); whereas women who are unrestricted in their sociosexuality (i.e., more willing to engage in casual sex) are attracted to men with more masculine faces (Gangestad, Garver-Apgar, Simpson, & Cousins, 2007). The leading theory for why women with an unrestricted sociosexuality prefer more masculine men is the “Sexy Sons Hypothesis” (Fisher, 1930), which suggests that these unrestricted women choose masculine partners because doing so will obtain “good genes” for any resulting offspring (Gangestad, Garver-Apgar, Simpson, & Cousins, 2007). A major fault with this previous literature, however, is that it does not consider the impact that power has on women’s partner preferences, and instead focuses entirely on biological determinants. This study aims to explore this gap in the literature. We predict that women in the high-power condition will show a greater attraction to the more masculine male faces, than women in the low-power condition (Hypothesis 3). This prediction is based on the assumption that high-power women may be less compelled to obtain resources from a mate, and may instead be more interested in obtaining a partner with good genes. This hypothesis will be tested in a two-part process. First, participants will view a primary array of 10 faces and indicate which of these faces they find attractive (see Appendix I). Second, for each of the faces that participants found attractive in the primary array, participants will be shown a secondary facial array in which the original face has been manipulated to vary in terms of masculinity or femininity (see Appendix I). Participants will then indicate which of the faces in this spectrum they are most attracted
to. No predictions are made for the facial feature preferences of high-power and low-power men.

**Power and Sexual Aggression**

Power, while impacting goal pursuit orientation, has also been shown to alter the specific behaviors and methods that individuals use when pursuing their goals. In particular, when approaching a potential sexual partner, powerful individuals have been shown to engage in more aggressive behaviors, including maintaining eye contact, and making physical contact (Keltner, Gruenfeld, & Anderson, 2003). Based on these findings, individuals in the high-power condition, in comparison to those in the low-power condition are expected to express a greater attraction to sexual aggression (Hypothesis 4). To test this hypothesis, participants will complete the Attraction to Sexual Aggression Scale (Malamuth, 1989a). Higher scores indicate a greater attraction toward sexually aggressive behaviors, such as spanking, bondage, and anal intercourse.

**Methods**

**Participants**

Approximately 148 participants were recruited from the University of Hawaii at Manoa to participate in this online study, 73% of which identified as female with an average age of 20.18. These statistics represent the sample after 19 participants were excluded from the data analyses because they identified as a sexual orientation other than heterosexual (i.e., homosexual, bisexual, pansexual, asexual, or other). Participants were from a diverse range of ethnic backgrounds, with the majority identifying as Caucasian (29.0%), Japanese (14.8%), and Filipino (14.2%). See Table 2.1 for ethnic diversity of study
participants. Participants received extra credit or course credit (depending on the course) in exchange for their participation in this study.

Table 2.1
Study 2 Participant Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>40</td>
<td>27.0</td>
</tr>
<tr>
<td>Female</td>
<td>108</td>
<td>73.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>African/African American</td>
<td>6</td>
<td>4.1</td>
</tr>
<tr>
<td>Caucasian</td>
<td>42</td>
<td>28.8</td>
</tr>
<tr>
<td>Chinese</td>
<td>12</td>
<td>8.2</td>
</tr>
<tr>
<td>Filipino</td>
<td>22</td>
<td>15.1</td>
</tr>
<tr>
<td>Hawaiian/Part Hawaiian</td>
<td>13</td>
<td>8.9</td>
</tr>
<tr>
<td>Hispanic/Latino/Mexican American</td>
<td>6</td>
<td>4.1</td>
</tr>
<tr>
<td>Japanese</td>
<td>19</td>
<td>13.0</td>
</tr>
<tr>
<td>Korean</td>
<td>9</td>
<td>6.2</td>
</tr>
<tr>
<td>Other Asian</td>
<td>4</td>
<td>2.7</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>7</td>
<td>4.8</td>
</tr>
<tr>
<td>Indian</td>
<td>1</td>
<td>.7</td>
</tr>
<tr>
<td>Portuguese</td>
<td>1</td>
<td>.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not in relationship</td>
<td>85</td>
<td>57.4</td>
</tr>
<tr>
<td>Dating exclusively</td>
<td>55</td>
<td>37.2</td>
</tr>
<tr>
<td>Married/cohabitating</td>
<td>6</td>
<td>4.1</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1.4</td>
</tr>
</tbody>
</table>

*Note:* Sexual Orientation was not included in this table as only heterosexual individuals were included in the analyses

**Design**

This study was developed as a two (participant gender) by two (power condition) between-subjects design. Participants were randomly assigned to either a low-power or high-power condition using Qualtrics, an online survey software program. See Table 2.2 for the distribution of participants within these conditions.
Table 2.2
Distribution of Participants by Power Condition and Gender

<table>
<thead>
<tr>
<th>Power Condition</th>
<th>Gender Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>High-Power</td>
<td>19</td>
</tr>
<tr>
<td>Low-Power</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
</tr>
</tbody>
</table>

**Measures**

*Facial Stimuli.* Two arrays of 10 faces (one array of male faces and another of female faces) were created using the FaceGen software. All of the faces used in these primary arrays were controlled for femininity/masculinity, age, and attractiveness, and vary only in race-specific features (i.e., skin color, eye shape and color, face shape, etc.). These faces were made to represent a number of ethnic backgrounds, rather than controlling for ethnicity as much of the previous facial attractiveness literature does, because previous research has suggested that individuals in this population are more attracted to racial diversity (Forbes, 2012). For each of the faces used in these primary arrays, a secondary array of five faces was created. In these secondary arrays, the original face (i.e., the face used in the primary array) was manipulated using the FaceGen software so that it varied in femininity/masculinity. Each face was assigned a score to indicate how high or low in femininity/masculinity the face was. Lower scores were considered less feminine/masculine, whereas higher scores were considered more feminine/masculine. See Appendix I to view these arrays.

*Attraction to Sexual Aggression Scale (ASAS).* This 14-item scale was developed to measure attraction to sexual aggression (Malamuth, 1989a); i.e., the extent to which individuals find sexually aggressive acts arousing. This measure presents a list of 13
different sexual activities that vary in aggressiveness, including “oral sex,” “anal intercourse,” “bondage,” “rape,” and “pedophilia,” and asks individuals to indicate which of these activities they have previously considered engaging in. Additionally, participants are asked to rate on a nine-point Likert scale the percentage of males and females that they think would find these activities sexually arousing, how sexually arousing they themselves find these various activities to be, and how likely it would be that they would commit these various acts, if they knew for certain that no one would find out and they would never receive punishment for their actions. Higher scores on this measure are shown to be positively associated with possessing attitudes supporting aggression against women, affective reactions to media portrayals of forced sex, physiological and self-reported sexual arousal, hostility toward women, dominance motives, and antisocial personality characteristics (Malamuth, 1989b). This scale has been shown to have high internal consistency ($\alpha = .91$; Malamuth, 1989; see Appendix J).

**Power Prime.** See Study 1

**Sociosexual Orientation Inventory-Revised (SOI-R).** See Study 1

**Demographics.** See Study 1

**Procedure**

Similarly to Study 1, this study was conducted using Qualtrics, an online survey software program. Participants signed up to participate in this study using Sona, an online participant pool used by the Psychology Department at the University of Hawaii at Manoa. Confidentiality was maintained throughout this study by using participants’ randomly assigned Sona ID number as their participant ID. No identifiable information was obtained during the course of this study. Upon completing a consent form (see Appendix K),
participants were randomly assigned to either the low-power or high-power condition by the survey software. As in Study 1, participants were first presented with a writing prompt, which in accordance with their randomly assigned power condition, directed participants to think about a time in their lives when they had power over another person (high-power condition) or someone had power over them (low-power condition) and to write a brief narrative about that memory. After completing this writing task, participants were shown the primary array of 10 faces, ranging only in race-based features (i.e., skin color, eye shape and color, face shape, etc.). The facial array shown to participants varied in accordance to their sexual preferences (i.e. individuals attracted to males saw an array of male faces, individuals attracted to females saw an array of female faces, and individuals attracted to both males and females were shown both the male and female arrays). Upon viewing this primary array, participants were instructed to select all of the faces that they found attractive, with no limit on the number of possible choices. After selecting the faces that they found attractive, participants were shown a secondary array of five faces for each of the individual faces that they were attracted to in the primary array. These five faces varied in degree of femininity/masculinity. Participants were asked to indicate which one of the five versions of each original face they found the most attractive. After selecting these faces, participants were asked to indicate how likely it would be that these individuals would reciprocate their attraction on a Likert scale of 1 (extremely unlikely) to 7 (extremely likely). Finally, participants completed the ASAS, SOI-R, and the demographics questionnaire. The ordering of these scales was not randomized. Due to the nature of the prime used, the effects expected will dissipate over time. Thus, the ordering of the measures reflects the variables of greatest interest.
Analyses

In order to determine the effects of gender and power condition (i.e., low-power vs. high-power) on participants’ ASAS and SOI-R scores, beliefs about reciprocated attraction, the overall number of faces selected, and preferred qualities (i.e., degree of masculinity/femininity) of the faces selected, a two-way MANOVA was conducted. Furthermore, to determine if the femininity/masculinity of the secondary array faces found most attractive varied according to condition, the scores for each of these secondary faces were averaged together and included in the two-way ANOVA. Higher scores for this preferred features indicated a higher degree of masculinity for male faces, or of femininity for female faces. Similarly, to determine if individuals in the high-power vs. low-power conditions differed in their beliefs about whether the individuals they were attracted to would also be attracted to them, the Likert scores (ranging between 1 (very unlikely to reciprocate) to 7 (very likely to reciprocate)) for all of the secondary faces selected were averaged together and included in the two-way MANOVA. In order to create a single sociosexuality score for each participant, items 1-3 are summed to create a Behavior facet, items 4-6 are summed to create an Attitude facet (after item 6 has been reverse coded), and items 7-9 are summed to create a Desire facet. Each of these subscales can be analyzed separately, or added together to create a singular sociosexuality score. Each of these subscales, as well as the overall sociosexuality score, was entered into the MANOVA. Finally, the individual items included in the ASAS were summed into the following subscales: Attraction to Bondage, Attraction to Conventional Sex, Attraction to Homosexuality, Attraction to Unconventional Sex, Attraction to Deviant Sex, and Attraction to Sexual Aggression. Each of these subscales was then further summed to create an overall
ASAS score. Each of these subscales, as well as the overall ASAS score, was entered into the MANOVA.

**Results**

According to Levene’s test of equality of error variances, the ASAS sum score \((F(3,108) = 3.340, p = .022)\) and ASAS conventional sex subscale \((F(3, 108) = 5.087, p = .002)\) were not equal across the various combinations of gender and power conditions. This is likely a result of the unequal sample sizes of males and females. Though transforming the data may help to correct for this violated assumption, the author has chosen not to transform this data based on the recommendations of previous literature. Specifically, previous research has demonstrated that transforming data for an ANOVA, which is considered a robust test, helps about as much as it hinders the accuracy of the \(F\)-ratio (Games & Lucas, 1966).

In order to test the main effects and interactions of gender and power on the various outcome variables, a MANOVA was conducted. The results of this analysis (see Table 2.3) demonstrated that power condition did not have a main effect on any of the dependent variables, though the data did approach significance for beliefs about reciprocated attraction \((F(1,112) = 3.107, p = .081, \eta^2 = .027)\), with those in the high-power condition reporting a greater likelihood that the individuals they found attractive would also be attracted to them in return, in comparison to those in the low-power condition. Gender, on the other hand, demonstrated a main effect on desire for casual sex (SOI desire subscale; \(F(1, 112) = 10.212, p = .002, \eta^2 = .084\)), overall willingness to engage in casual sex (SOI sum score; \(F(1, 112) = 4.414, p = .038, \eta^2 = .038\)), and attraction to unconventional sex (ASAS unconventional sex subscale; \(F(1, 212) = 4.777, p = .031, \eta^2 = .041\)). For each of these
outcome variables, men typically reported higher scores than women, suggesting that men tend to have a greater desire for casual sex, willingness to engage in casual sex, and attraction to unconventional sex than women. There were no significant interactions between gender and power for any of the outcome variables.
### Table 2.3
Effects of Power and Gender on Sociosexuality, Attraction to Sexual Aggression, Attraction to Faces, and Reciprocated Attraction.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Power Condition</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td>High</td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOI Sum Score</td>
<td></td>
<td>37.516</td>
<td>2.966</td>
<td>30.446</td>
<td>1.589</td>
<td>4.414***</td>
<td>35.424</td>
<td>2.345</td>
<td>32.538</td>
<td>2.413</td>
</tr>
<tr>
<td>Number of Faces</td>
<td></td>
<td>3.564</td>
<td>.358</td>
<td>3.102</td>
<td>.192</td>
<td>1.295</td>
<td>3.231</td>
<td>.283</td>
<td>3.436</td>
<td>.291</td>
</tr>
<tr>
<td>ASAS Sum Score</td>
<td></td>
<td>286.760</td>
<td>10.694</td>
<td>282.050</td>
<td>5.728</td>
<td>.151</td>
<td>291.106</td>
<td>8.455</td>
<td>277.705</td>
<td>8.699</td>
</tr>
<tr>
<td>ASAS Bondage</td>
<td></td>
<td>45.199</td>
<td>3.414</td>
<td>48.092</td>
<td>1.829</td>
<td>.558</td>
<td>49.650</td>
<td>2.700</td>
<td>43.640</td>
<td>2.778</td>
</tr>
<tr>
<td>ASAS Conventional Sex</td>
<td></td>
<td>142.5</td>
<td>5.371</td>
<td>137.813</td>
<td>2.877</td>
<td>.592</td>
<td>142.767</td>
<td>4.247</td>
<td>137.545</td>
<td>4.370</td>
</tr>
<tr>
<td>ASAS Unconventional Sex</td>
<td></td>
<td>48.122</td>
<td>2.599</td>
<td>41.678</td>
<td>1.392</td>
<td>4.777***</td>
<td>46.887</td>
<td>2.055</td>
<td>42.913</td>
<td>2.114</td>
</tr>
<tr>
<td>ASAS Deviant Sex</td>
<td></td>
<td>17.859</td>
<td>.988</td>
<td>19.264</td>
<td>.529</td>
<td>1.570</td>
<td>18.297</td>
<td>.781</td>
<td>18.826</td>
<td>.804</td>
</tr>
<tr>
<td>ASAS Sexual Aggression</td>
<td></td>
<td>20.481</td>
<td>1.224</td>
<td>20.832</td>
<td>.656</td>
<td>.064</td>
<td>20.859</td>
<td>.968</td>
<td>20.455</td>
<td>.996</td>
</tr>
</tbody>
</table>

* $p < .05$, ** $p < .01$, *** $p < .001$
To further analyze the impact of power on male and female participants’ attraction to specific facial features, as well as the various other outcome variables, an additional set of one-way ANOVAs was conducted for males and females, separately. Additionally, for these exploratory analyses only individuals who selected at least one face in the primary array were included in this analysis. For men, there was no significant difference between power conditions for any of the outcome variables. For women, on the other hand, the average masculinity scores of the faces found attractive approached significance ($F(1, = 2.379, p = .127, \eta^2 = .029$; see Figure 2.1), and there was a significant difference between power conditions regarding the belief that their attraction to these individuals would be reciprocated ($F(1, 101) = 6.285, p = .014, \eta^2 = .072$; see Figure 2.2). Specifically, women in the high-power condition showed a greater attraction to more masculine male faces and were more likely to believe that their attraction would be reciprocated than women in the low-power condition.
Figure 2.1
Masculinity of Male Faces found Attractive by Female Participants

Figure 2.2
Beliefs Regarding Likelihood of Reciprocated Attraction for Female Participants
Additionally, this exploratory analysis revealed a significant main effect of power condition on reporting of past sexual behaviors (SOI behavior subscale; \( F(1,101) = 3.920, p = .051, \eta^2 = .046 \)), overall willingness to engage in casual sex (SOI sum score; \( F(1,101) = 4.358, p = .040, \eta^2 = .051 \)), attraction to bondage (ASAS bondage subscale, \( F(1,101) = 5.987, p = .017, \eta^2 = .069 \)), attraction to conventional sex (ASAS conventional sex subscale, \( F(1,101) = 4.020, p = .048, \eta^2 = .047 \)), attraction to unconventional sex (ASAS unconventional sex subscale, \( F(1,101) = 4.780, p = .032, \eta^2 = .056 \)), and overall attraction to sexual aggression (ASAS sum score, \( F(1,101) = 5.320, p = .024, \eta^2 = .062 \)). Additionally, there was a nearly significant main effect of power on desire for casual sex (SOI desire subscale; \( F(1,101) = 3.781, p = .055, \eta^2 = .045 \)) See Table 2.4.

Table 2.4
Effects of Power on Sociosexuality, Attraction to Sexual Aggression, Attraction to Faces, and Reciprocated Attraction for Female Participants

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Power Condition</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>SD</td>
<td>Low</td>
<td>SD</td>
</tr>
<tr>
<td>SOI Behavior</td>
<td></td>
<td>7.7115</td>
<td>5.248</td>
<td>5.960</td>
<td>3.319</td>
</tr>
<tr>
<td>SOI Attitude</td>
<td></td>
<td>13.654</td>
<td>7.295</td>
<td>11.920</td>
<td>6.812</td>
</tr>
<tr>
<td>SOI Sum Score</td>
<td></td>
<td>31.731</td>
<td>15.619</td>
<td>26.460</td>
<td>11.889</td>
</tr>
<tr>
<td>Number of Faces</td>
<td></td>
<td>3.039</td>
<td>1.455</td>
<td>3.260</td>
<td>1.651</td>
</tr>
<tr>
<td>ASAS Sum Score</td>
<td></td>
<td>295.537</td>
<td>46.498</td>
<td>267.000</td>
<td>64.536</td>
</tr>
<tr>
<td>ASAS Bondage</td>
<td></td>
<td>50.880</td>
<td>18.035</td>
<td>43.723</td>
<td>16.305</td>
</tr>
<tr>
<td>ASAS Conventional Sex</td>
<td></td>
<td>145.068</td>
<td>20.443</td>
<td>132.000</td>
<td>34.777</td>
</tr>
<tr>
<td>ASAS Homosexuality</td>
<td></td>
<td>13.4400</td>
<td>5.452</td>
<td>14.633</td>
<td>5.094</td>
</tr>
<tr>
<td>ASAS Unconventional Sex</td>
<td></td>
<td>42.686</td>
<td>11.954</td>
<td>38.348</td>
<td>13.322</td>
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<tr>
<td>ASAS Deviant Sex</td>
<td></td>
<td>19.686</td>
<td>5.175</td>
<td>19.083</td>
<td>4.504</td>
</tr>
<tr>
<td>ASAS Sexual Aggression</td>
<td></td>
<td>21.460</td>
<td>6.412</td>
<td>20.208</td>
<td>5.645</td>
</tr>
<tr>
<td>Preferred Features (Secondary Array)</td>
<td></td>
<td>2.120</td>
<td>.819</td>
<td>1.866</td>
<td>.802</td>
</tr>
<tr>
<td>Reciprocated Attraction</td>
<td></td>
<td>4.641</td>
<td>1.638</td>
<td>4.001</td>
<td>1.562</td>
</tr>
</tbody>
</table>

* \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)
Discussion

Due to the disparity in sample sizes, concrete conclusions about the main effects of gender or the interaction of gender and power conditions for the various outcome variables could not be made. However, despite this statistical handicap, conclusions about within gender differences could still be made, particularly for female participants.

Attraction to Faces

Interestingly, the prediction that individuals in the high-power condition would be attracted to a greater number of faces was not supported (Hypothesis 1). This prediction was based on research suggesting that individuals with power tend to act more sexually inappropriately than those without power. This previous research, however, did not specify to whom these powerful individuals were acting toward. The assumption made in this study was that high-power individuals would be indiscriminant in terms of who they acted towards and furthermore who they were attracted to. This assumption appears to be incorrect. In fact, while not statistically significant, the data suggests that individuals in the low-power condition (regardless of gender) were attracted to slightly more faces than those in the high-power condition. This may imply that people with power are more selective in who they direct their attraction towards, though more data would need to be collected before this conclusion could be made.

Reciprocated Attraction

The prediction that power condition would directly influence participants’ beliefs about whether the individuals they found attractive would also be attracted to them in return was partially supported (Hypothesis 2). While there did not seem to be a significant difference between power conditions for male participants, there was a statistically
significant difference for female participants. Specifically, female participants in the high-power condition were more likely to believe that the individuals they were attracted to would reciprocate that attraction, in comparison to those in the low-power condition. This is consistent with previous research, which has demonstrated that powerful individuals tend to overestimate how often, and to what extent, other individuals are attracted to them (Kuntsman & Maner, 2011). More recent research provides a possible explanation for the null finding among male participants. Particularly, Perilloux and Kurzban (2015) found that men tend to be fairly accurate in their perception of women's sexual interest in themselves. Instead, they argue that women tend to underestimate their own sexual intentions toward men. Further research needs to be conducted to determine how men perceive women's sexual interest, and whether these perceptions are, in fact, altered by feelings of power.

**Preferred Features**

Evolutionary psychology makes a number of predictions regarding the mating preferences of men and women, largely based on their differential reproductive potential and minimal parental investment. Based on these principals, evolutionary theorists propose that men prefer women that are younger and physically attractive, as these are cues of fertility, while women prefer men who can provide resources and/or good genes to their children. According to these theorists, women have an innate preference for long-term relationships, as these would allow a certain degree of stability when raising offspring. More recent research has suggested that women seeking long-term partners actually prefer men with less-masculine facial features. Women seeking short-term partners, on the other hand, typically prefer men with more masculine features as these men will supposedly provide “good genes” for any potential offspring that may result from
the coupling (Gangestad, Garver-Apgar, Simpson, & Cousins, 2007). This study sought to question the biological underpinnings of women's sexual preferences, and instead proposes that power, a social construct, may be partially responsible for these seemingly innate sex differences. Specifically, this study questions whether feeling powerful could cause women to forgo issues related to resource acquisition and focus on finding highly masculine men for “good genes” (Hypothesis 3). Or, alternatively, would they show similar preferences to women seeking long-term partners, as this is supposedly the default female mating preference.

Results from this study, while only approaching significance, suggest that women primed to feel powerful are more attracted to highly masculine male faces, in comparison to women primed to feel powerless. When considered in the context of evolutionary theory, this suggests that women in the high-power condition may not consider resource acquisition to be a top priority, and instead prioritize procuring “good genes.” This begs a very important question: Are the mating preferences reported by evolutionary theorists innately biological, or are they a result of social constructs such as power and status? If the latter is true, the field of evolutionary psychology must review many of its central arguments through a social rather than biological lens.

**Attraction to Sexual Aggression**

Finally, this study also sought to examine the influence of power on attraction to sexual aggression. The prediction that individuals in the high-power condition would be more attracted to sexual aggression, in comparison to those in the low-power condition, was partially supported. Specifically, women in the high-power condition appear to be more attracted to sexual aggression overall, as well as to several of the specific components
of sexual aggression, namely: bondage, conventional sex, and unconventional sex. These findings support previous research linking power to sexual behaviors.

**Sociosexuality**

While no predictions were made regarding the effects of gender and power on sociosexuality, data on this subject was explored. When examining the entire sample, it appears that there was a main effect of gender on desire for casual sex as well as overall willingness to engage in casual sex, such that men typically had greater desires for and willingness to engage in casual sex than women. There were no main effects of power, or interactions between power and gender for this analysis. When splitting this analysis by gender, we see that power condition had a main effect on the reporting of previous casual sex behaviors for women. Particularly, women in the high-power group reported a greater number of past casual sex behaviors than those in the low-power group. This suggests that either there was a bias in who was assigned to the high and low power groups, causing the data to be artificially skewed, or the power condition influenced the female participants’ willingness to report past casual sex experiences.

Because there was no control condition, it is impossible to determine if the high-power group reported a higher than average number of past casual sex experiences, or if the low-power group reported a lower than average number. When compared to a previous study on sociosexuality conducted in this population (M = 6.357, SD = 3.973; Carpenter, 2012), it appears as though the high-power condition (M = 7.715, SD = 5.248), reported a significantly greater amount of previous casual sex experiences than what is typical for women in this population. This brings up a commonly debated issue about women’s sexual history reporting. Previous research has shown that women’s willingness
to honestly report their sexual histories is dependent on the method of survey, with interviews returning the least honest responses, and bogus lie detector tests returning the most honest responses (Alexander & Fisher, 2003). Based on this finding, it appears that there are even more factors influencing women’s willingness to report these behaviors.

Future research should consider status and power as potential moderators for this data.

Limitations

As discussed in Study 1, one major limitation of this methodology is that individuals may experience varying degrees of powerfulness or powerlessness in response to their writing task. Furthermore, asking individuals to recall a time when someone had power over them, or when they had power over someone else, may prime for more than just power. For example, completing this priming task may also make feelings of guilt and shame more salient, depending on the particular memory. These potential confounding variables were not assessed in this study. Additionally, as with many other psychological studies, this research is limited in its generalizability because the sample used consisted solely of college students, who are not only younger than the general population, but also tend to be better educated, wealthier, and more liberal (Foot & Sanford, 2004). Thus, findings with a college sample may differ drastically from a similar study conducted with the general population. Additionally, the sample used in this study is more ethnically diverse than the general population of the United States. To ensure the reliability of these findings, future research should attempt to replicate this study with different populations and cultures. Finally, the faces used in this study were artificially generated and manipulated using the FaceGen software. Using real faces, as opposed to computer-generated faces, may have influenced the results of this study.
Study 3: The Mating Game

Study 3, unlike Studies 1 and 2, explores the specific decision making processes that individuals go through when deciding what sexual strategies will be most successful in their mating market circumstances. Research has demonstrated that there are a number of important considerations to deliberate in any given mating market. These considerations include, though are not limited to, the sex ratio of the market (i.e. the ratio of sexually available men to sexually available women; Pederson, 1991), as well as one’s own mate value (Buss & Schmitt, 1993). These factors combined contribute to a number of real-world outcomes, including the development of sociosexuality (Simpson & Gangestad, 1991), interest in engaging in sexual aggression (Bargh, Raymond, Pryor, & Strack, 1995), and the implementation of specific sexual strategies (Buss & Schmitt, 1993). While Study 3 does not actually manipulate the ecological factors present in a mating market, it employs a hypothetical scenario in which sex ratios are manipulated. In doing so, we hope to address the conscious decisions that individuals’ make when considering mating market conditions, and furthermore how these processes influence individuals’ perceived mate value and sense of personal power.

Participants were randomly assigned to a male-biased (i.e. more males than females) or female-biased (i.e. more females than males) condition, and told to imagine that they were on a deserted island with either three women and seven men (male-biased), or seven women and three men (female-biased). They were then given a list of 49 potential sexual strategies, and asked to choose 10 strategies that they believed would allow them to gain access to a sexual/romantic partner. Each of these strategies is based on the work of Schmitt and Buss (1996), who conducted a series of studies to determine which strategies
young adults use in real-life to attract partners. Of these strategies, half are considered “self-promotion” tactics (i.e., “make a good first impression”), while the other half are considered “competitor derogation” tactics (i.e., “suggest the other person has a sexual disease”). These strategies also vary in efficacy, with some strategies being reportedly more effective for men or women, as well as for long-term or short-term mating conquests.

Participants were asked to choose the 10 strategies that they would use to obtain a sexual and/or romantic partner in the given conditions. After choosing their strategies, participants received randomized feedback stating that they were either 1) successful at obtaining a mate, 2) failed to obtain a mate, 3) or simply thanking them for completing the task. This feedback condition has been added to the study because it is unclear whether skewed mating markets alone influence individuals’ sociosexuality (i.e., willingness to engage in casual sex), or whether their successes and failures in a skewed mating market interact to influence their sociosexuality. Finally, after receiving this feedback, participants were asked to fill out a brief survey, which included the Sense of Power Scale (SOP), ASAS, MVI-7, CMVS, preference for long-term vs. short-term mating, SOI-R, and demographics.

**Sexual Strategies Employed in Skewed Sex Ratios**

Considering the impact of skewed sex ratios on sexual strategies, it is expected that the strategies that individuals choose to employ will differ not only by gender but by sex ratio condition (i.e., female-biased vs. male-biased) as well. Sexual Strategies Theory provides a number of predictions for how women and men should act under various mating market restrictions. Specifically, females in the female-biased condition are expected to elicit strategies that will demonstrate their sexual availability, and the sexual restrictiveness of competitor females. Males in the female-biased condition, however, are
not under the same restrictions as females as they will almost certainly obtain a sexual partner. Therefore, both females and males in the female-biased condition are expected to select more strategies geared toward short-term mating, in comparison to those in the male-biased condition (Hypothesis 1). Separate predictions, however, have been set forth for males and females in male-biased populations. In these populations, women are perceived as having an advantage, therefore allowing them to dictate the terms of the mating market. As such, we expect that both males and females in the male-biased condition will select more strategies geared toward long-term mating, in comparison to those in the female-biased condition (Hypothesis 2).

The implementation of competitor derogation and self-promotion tactics is also expected to vary in accordance with sex ratio conditions. There is a relative absence of research investigating how mating market conditions influence the specific tactics that individuals use to obtain a partner, particularly in the context of competitor derogation versus self-promotion. As such, the following predictions are based on the assumption that being in limited supply provides individuals with a certain degree of bargaining power, whereas those in over-supply face a considerable struggle when trying to attract sexual and/or romantic partners. We predict that individuals who are in limited supply (e.g., women in the male-biased condition and men in the female-biased condition) will utilize more self-promotion tactics, in comparison to those in over-supply (Hypothesis 3); while individuals who are in over-supply (e.g., women in the female-biased condition and men in the male-biased condition) will use more competitor derogation tactics, in comparison to those in limited supply (Hypothesis 4). In other words, we expect to find an interaction
between gender and sex ratio condition on both the use of promotion and derogation tactics.

**Sex Ratios, Mate Value, and Power**

In terms of mate value, it is expected that those individuals who are at an advantage (i.e., females in the male-biased condition and males in the female-biased condition) will have a higher mate value (Hypothesis 5) in comparison to those who are at a disadvantage (i.e., male in the male-biased condition and females in the female-biased condition). In other words, we anticipate an interaction between gender and sex ratio condition on participants’ mate value. To test these hypotheses, participants will complete the CMVS and MVI-7. High scores on the CMVS and MVI-7 indicate a high mate value.

Furthermore, while never having been studied in this context, we anticipate that sex ratios will also impact individuals’ sense of personal power. If being the sex in limited supply can result in an increased mate value, perhaps it could also result in feeling a greater sense of power and agency. Power, in this context, is conceptualized as one’s ability to get what you want from others (Kuntsman & Maner, 2011). Therefore, we predict that being at an advantage (i.e., females in male-biased condition and males in female-biased condition) will have a higher sense of personal power, in comparison to those at a disadvantage (i.e., females in female-biased condition and males in male-biased condition; Hypothesis 6). Once again, we are expecting to see an interaction between gender and sex ratio for sense of power.

**Sex Ratios and Sociosexuality**

Previous work has demonstrated that across the globe, sex ratios show a direct and reliable link to sociosexuality (Simpson, 1991). Specifically, being in a female-biased
population, in comparison to a male-biased population, generally results in a more unrestricted sociosexuality for the members of said population. Conversely, being in a male-biased population, in comparison to a female-biased population, generally results in a more restricted sociosexuality for the members of said population (Pederson, 1991). In congruence with these findings, participants’ sociosexuality is expected to vary by sex ratio condition. Specifically, individuals in the male-biased condition are expected to have a more restricted sociosexuality (i.e., less willingness to engage in casual sex) than individuals in the female-biased condition (Hypothesis 7). To test this hypothesis, participants will complete the sociosexual orientation inventory. Higher scores on this measure indicate a greater willingness to engage in casual sex (i.e., more unrestricted sociosexuality).

**Sex Ratios and Failure/Success**

While a number of predictions have been made about how skewed sex ratios influence individuals’ mate value, sense of personal power, sociosexuality, and sexual aggression, one question still remains. Is it the sex ratio of a population that influences these variables, or is the experiences of success and/or failure in these populations that lead changes in individuals’ behaviors and beliefs? We anticipate that success or failure to obtain a romantic partner will influence an individual’s mate value, and sociosexuality scores above and beyond the effects of sex ratio condition. Specifically, succeeding in obtaining a partner, as opposed to failing, is expected to result in higher mate-values (Hypothesis 8). Sociosexuality is also expected to vary in accordance with, gender, sex ratio condition, and success/failure feedback. It is anticipated that males in the female-biased condition who are successful at obtaining a partner will have higher sociosexuality scores
(Hypothesis 9a) than any other group. We also anticipate that females in the male-biased condition who are successful at obtaining a partner will have lower sociosexuality scores (Hypothesis 9b) than any other group. In other words, we anticipate a three-way interaction between gender, sex ratio condition, and feedback condition on mate value and sociosexuality.

**Power as a Moderator**

Finally, this study explored the potential moderating effects of power on the relationship between sex ratios and sociosexuality. Specifically, we predicted that power would moderate this relationship, by causing those in limited supply to feel more powerful in their mating market condition, and for those feelings of power to then influence their overall sociosexuality (Hypothesis 10). Stated explicitly, we expected that men in the female-biased condition would feel more power than women in the female-biased condition, and would thus lead to men reporting a more unrestricted sociosexuality. Furthermore, we expected that women in the male-biased condition would feel more power than men in the male-biased condition, and would thus lead to women reporting a more restricted sociosexuality.

**Methods**

**Participants**

Approximately 291 participants were recruited from the University of Hawaii at Manoa to participate in this online study, 75.9% of which identified as female with an average age of 19.99. This is representative of the sample after 49 participants were excluded from the data analyses because they identified as a sexual orientation other than heterosexual (i.e., homosexual, bisexual, pansexual, asexual, other, or failed to report a
sexual orientation). Participants were from a diverse range of ethnic backgrounds, with the majority identifying as Caucasian (27.2%), Japanese (16.6%), and Filipino (15.5%). See Table 3.1 for report of participants’ ethnic diversity. Participants received extra credit or course credit (depending on the course) in exchange for their participation in this study.

Table 3.1
Study 3 Participant Demographics

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>70</td>
<td>24.1</td>
</tr>
<tr>
<td>Female</td>
<td>221</td>
<td>75.9</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African/African American</td>
<td>10</td>
<td>3.4</td>
</tr>
<tr>
<td>Caucasian</td>
<td>79</td>
<td>27.2</td>
</tr>
<tr>
<td>Chinese</td>
<td>20</td>
<td>6.9</td>
</tr>
<tr>
<td>Filipino</td>
<td>45</td>
<td>15.5</td>
</tr>
<tr>
<td>Hawaiian/Part Hawaiian</td>
<td>28</td>
<td>9.7</td>
</tr>
<tr>
<td>Hispanic/Latino/Mexican American</td>
<td>17</td>
<td>5.9</td>
</tr>
<tr>
<td>Japanese</td>
<td>48</td>
<td>16.6</td>
</tr>
<tr>
<td>Korean</td>
<td>15</td>
<td>5.2</td>
</tr>
<tr>
<td>Other Asian</td>
<td>17</td>
<td>5.9</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>7</td>
<td>2.4</td>
</tr>
<tr>
<td>Indian</td>
<td>2</td>
<td>.7</td>
</tr>
<tr>
<td>Portuguese</td>
<td>1</td>
<td>.3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Relationship Status</strong></td>
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<td></td>
</tr>
<tr>
<td>Not in relationship</td>
<td>137</td>
<td>47.6</td>
</tr>
<tr>
<td>Dating exclusively</td>
<td>126</td>
<td>43.8</td>
</tr>
<tr>
<td>Married/cohabitating</td>
<td>14</td>
<td>4.9</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>3.8</td>
</tr>
</tbody>
</table>

*Note:* Sexual Orientation was not included in this table as only heterosexual individuals were included in the analyses

**Design**

This study was developed as a two (participant gender) by two (sex-ratio condition: male-biased, female-biased) by three (feedback condition: success, failure, neutral) between-subjects design. Participants were randomly assigned to either a male-biased or
female-biased condition, and were also randomly assigned to a feedback condition (see Table 3.2).

Table 3.2
Distribution of Participants by Sex Ratio Condition, Gender Identity, and Feedback Condition

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female-Biased</td>
<td>33</td>
<td>120</td>
<td>153</td>
</tr>
<tr>
<td>Unsuccessful</td>
<td>18</td>
<td>30</td>
<td>48</td>
</tr>
<tr>
<td>Successful</td>
<td>7</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>Neutral</td>
<td>8</td>
<td>47</td>
<td>55</td>
</tr>
<tr>
<td>Male-Biased</td>
<td>34</td>
<td>101</td>
<td>135</td>
</tr>
<tr>
<td>Unsuccessful</td>
<td>12</td>
<td>31</td>
<td>43</td>
</tr>
<tr>
<td>Successful</td>
<td>10</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>Neutral</td>
<td>12</td>
<td>35</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>221</td>
<td>288</td>
</tr>
</tbody>
</table>

**Measures**

**Sexual Strategies.** Schmitt and Buss (1996) identified a number of strategies that individuals have successfully used when trying to obtain a romantic/sexual partner. These strategies were categorized into long-term vs. short-term strategies (i.e., strategies employed to obtain long-term or short-term partners, respectively), and derogation vs. promotion strategies (i.e., strategies that attempt to make other competitors appear less worthy or to make oneself appear better in comparison to others, respectively). The list of strategies derived from Schmitt and Buss (1996) was presented to participants during the mating game as potential options that participants could select in order to attract a sexual partner. See Appendix L.

**Generalized Sense of Power Scale (SOP).** This 8-item generalized scale, created by Anderson and Galinsky (2006), asks participants to report the general sense of power that they experience within the context of their personal relationships (e.g., “In my relationships with others, I think have a great deal of power”). These items were slightly modified for the
purposes of this study so that they reflected the imagined situation presented by the study vignette (e.g., “In my relationships with the people on this island, I think that I would have a great deal of power”). Participants rate their agreement on a seven-item Likert scale, with higher overall scores indicating a greater sense of power. This scale has previously been shown to have high internal consistency ($\alpha = .88$; see Appendix M).

**Mate Value Inventory-7 (MVI-7).** See Study 1

**Components of Mate Value Scale (CMVS).** See Study 2

**Attraction to Sexual Aggression Scale (ASAS).** See Study 2

**Sociosexual Orientation Inventory-Revised (SOI-R).** See Study 1

**Demographics.** See Study 1

**Procedure**

This study was conducted using Qualtrics, an online survey software program. Participants signed up to participate in this study using Sona, an online participant pool used by the Psychology Department at the University of Hawaii at Manoa. Confidentiality was maintained throughout this study by using participants’ randomly assigned Sona ID number as their participant ID. No identifiable information was obtained during the course of this study. Upon completing a consent form (see Appendix N), participants were randomly assigned to either the female-biased or male-biased condition. In these vignettes, participants were instructed to imagine a scenario in which they are stranded on a deserted island with either three women and seven men (male-biased) or seven women and three men (female-biased; see Appendix O). In this prompt, they also learned that there is no hope for rescue, and as such individuals have started pairing off with each other. Obviously, because of the disparity between the number of men and the number of women
on this island, some individuals will be without a sexual partner. In an effort to be one of
the individuals who is successful at obtaining a sexual partner, participants were provided
with a list of potential strategies that they could use to attract a mate. From these potential
strategies, participants were directed to select 10 that they would use to obtain a
sexual/romantic partner in their randomly assigned scenario. After selecting their 10
sexual strategies, participants received feedback about whether they were successful at
obtaining a partner. This feedback was randomly assigned, and participants were either
told that they succeeded, failed, or received no feedback at all and were simply thanked for
completing the task.

After receiving feedback about their success or failure at obtaining a romantic
partner on this deserted island, participants completed a series of survey measures,
including the SOP, SOI-R, CMVS, MVI-7, ASAS, and demographics. The ordering of these
scales was not randomized. Due to the nature of the prime used, the effects expected will
dissipate over time. Thus, the ordering of the measures reflects the variables of greatest
interest.

Analyses

In order to determine what strategies participants in this study most often used, a
frequency distribution was created. Additionally, sum scores were created for derogation
strategies, promotion strategies, long-term strategies, and short-term strategies. These
strategy sum scores were analyzed using a two-way MANOVA to test the effects of gender
and sex ratio on selected strategies. Feedback condition was not entered into this two-way
MANOVA as these strategies were chosen before they received feedback. A three-way
MANOVA was conducted to determine the influence of participant gender, sex ratio

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condition (i.e., female-biased vs. male-biased), and feedback condition (success vs. failure vs. no feedback) on participants’ scores on the SOP, ASAS, SOI-R, CMVS, and MVI-7. Furthermore, a hierarchical multiple regression analysis was conducted to determine the amount of variance accounted for by sex ratio condition and power on sociosexuality, and to determine if there was a possible interaction between sex ratio and power on sociosexuality. Additional exploratory hierarchical regression and correlation analyses were also conducted.

**Results**

A frequency distribution was created for each of the potential strategies participants could have chosen during the mating game (see Table 3.3). Overall, participants were more likely to use promotion strategies, as opposed to derogation strategies, regardless of gender or sex ratio condition. The most commonly used promotion strategies included: flirting (N = 202), maintaining good hygiene (N = 191), acting like oneself (N = 190), making oneself look good (N = 189), and finding common interests (N = 188). Of the derogation strategies used by participants, the most common were: suggesting that one’s competitor has an STI (N = 8), saying that one’s competitor sleeps around (N = 7), saying that one’s competitor cheats on their romantic partners (N = 5), claiming that one’s competitor is gay (N = 5), and saying that one’s competitor uses people (N = 4).
Table 3.3
Frequency of Sexual Strategies Used

<table>
<thead>
<tr>
<th>Promotion</th>
<th>Strategy Type</th>
<th>Sexual Strategy</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>ST</td>
<td>Flirt</td>
<td>52</td>
<td>74.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST/LT</td>
<td>Maintain Good Hygiene</td>
<td>49</td>
<td>70.0</td>
<td>142</td>
<td>64.3</td>
</tr>
<tr>
<td>LT</td>
<td>Act Like Yourself</td>
<td>42</td>
<td>60.0</td>
<td>148</td>
<td>67.0</td>
</tr>
<tr>
<td>ST</td>
<td>Make Self Look Good</td>
<td>45</td>
<td>64.3</td>
<td>144</td>
<td>65.2</td>
</tr>
<tr>
<td>LT</td>
<td>Find Common Interests</td>
<td>43</td>
<td>61.4</td>
<td>145</td>
<td>65.6</td>
</tr>
<tr>
<td>LT</td>
<td>Get to Know Person</td>
<td>46</td>
<td>65.7</td>
<td>133</td>
<td>60.2</td>
</tr>
<tr>
<td>ST</td>
<td>Spend Time Alone</td>
<td>38</td>
<td>54.3</td>
<td>109</td>
<td>49.3</td>
</tr>
<tr>
<td>ST</td>
<td>Subtle Physical Contact</td>
<td>30</td>
<td>42.9</td>
<td>109</td>
<td>49.3</td>
</tr>
<tr>
<td>ST</td>
<td>Show Attraction</td>
<td>30</td>
<td>42.9</td>
<td>102</td>
<td>46.2</td>
</tr>
<tr>
<td>ST</td>
<td>Be Talkative and Outgoing</td>
<td>26</td>
<td>37.1</td>
<td>94</td>
<td>42.5</td>
</tr>
<tr>
<td>LT</td>
<td>Be Understanding</td>
<td>24</td>
<td>34.3</td>
<td>91</td>
<td>41.2</td>
</tr>
<tr>
<td>LT</td>
<td>Be Sensitive to Others Needs</td>
<td>28</td>
<td>40.0</td>
<td>86</td>
<td>38.9</td>
</tr>
<tr>
<td>LT</td>
<td>Do Special Things for Someone</td>
<td>22</td>
<td>31.4</td>
<td>89</td>
<td>40.3</td>
</tr>
<tr>
<td>LT</td>
<td>Be Faithful</td>
<td>22</td>
<td>31.4</td>
<td>89</td>
<td>40.3</td>
</tr>
<tr>
<td>ST</td>
<td>Initiate Communication</td>
<td>28</td>
<td>40.0</td>
<td>81</td>
<td>36.7</td>
</tr>
<tr>
<td>ST</td>
<td>Good First Impression</td>
<td>24</td>
<td>34.3</td>
<td>67</td>
<td>30.3</td>
</tr>
<tr>
<td>ST</td>
<td>Go Out of Way to Talk</td>
<td>21</td>
<td>30.0</td>
<td>66</td>
<td>29.9</td>
</tr>
<tr>
<td>LT</td>
<td>Show Devotion</td>
<td>23</td>
<td>32.9</td>
<td>59</td>
<td>26.7</td>
</tr>
<tr>
<td>LT</td>
<td>Fall in Love</td>
<td>18</td>
<td>25.7</td>
<td>52</td>
<td>23.5</td>
</tr>
<tr>
<td>LT</td>
<td>Avoid Sex With others</td>
<td>14</td>
<td>20.0</td>
<td>55</td>
<td>24.9</td>
</tr>
<tr>
<td>ST</td>
<td>Make Someone Think About Sex</td>
<td>9</td>
<td>12.9</td>
<td>43</td>
<td>19.5</td>
</tr>
<tr>
<td>ST</td>
<td>Accept Sex Offer</td>
<td>20</td>
<td>28.6</td>
<td>32</td>
<td>14.5</td>
</tr>
<tr>
<td>ST</td>
<td>Have Sex</td>
<td>13</td>
<td>18.6</td>
<td>24</td>
<td>10.9</td>
</tr>
<tr>
<td>ST</td>
<td>Shower with Someone</td>
<td>6</td>
<td>8.6</td>
<td>23</td>
<td>10.4</td>
</tr>
<tr>
<td>LT</td>
<td>Date Someone for Long Time</td>
<td>10</td>
<td>14.3</td>
<td>19</td>
<td>8.6</td>
</tr>
<tr>
<td>ST</td>
<td>Initiate Sex</td>
<td>6</td>
<td>8.6</td>
<td>19</td>
<td>8.6</td>
</tr>
<tr>
<td>Mode</td>
<td>Suggestion</td>
<td>Frequency</td>
<td>Likelihood</td>
<td>Rating 1</td>
<td>Rating 2</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------</td>
<td>-----------</td>
<td>------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>ST</td>
<td>Suggest Competitor has STI</td>
<td>2</td>
<td>2.9</td>
<td>6</td>
<td>2.7</td>
</tr>
<tr>
<td>ST/LT</td>
<td>Say Competitor Sleeps Around</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>3.2</td>
</tr>
<tr>
<td>LT</td>
<td>Say Competitor Cheats on Romantic Partners</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>2.3</td>
</tr>
<tr>
<td>ST</td>
<td>Say Competitor is Gay</td>
<td>3</td>
<td>4.3</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td>ST/LT</td>
<td>Say Competitor Uses People</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1.8</td>
</tr>
<tr>
<td>ST/LT</td>
<td>Say Competitor is in Romantic Relationship</td>
<td>1</td>
<td>1.4</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>ST</td>
<td>Say Competitor has Poor Hygiene</td>
<td>1</td>
<td>1.4</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td>ST</td>
<td>Say Competitor Doesn’t Put Out</td>
<td>1</td>
<td>1.4</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td>ST/LT</td>
<td>Say Competitor is Bisexual</td>
<td>1</td>
<td>1.4</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>ST</td>
<td>Say Competitor is Fat/Ugly</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td>ST</td>
<td>Say Competitor is a Tease</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td>ST/LT</td>
<td>Say Competitor Attacks</td>
<td>1</td>
<td>1.4</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>LT</td>
<td>Say Competitor is Inconsiderate</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td>ST/LT</td>
<td>Say Competitor is Pregnant/Got Someone Else</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>.9</td>
</tr>
<tr>
<td></td>
<td>Pregnant/Got Someone Else Pregnant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LT</td>
<td>Say Competitor Isn’t Loyal</td>
<td>1</td>
<td>1.4</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>LT</td>
<td>Say Competitor Was Sleazy</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>LT</td>
<td>Say Competitor Just Wants to Get Laid</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>ST</td>
<td>Say Competitor Not Clean</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>ST</td>
<td>Say Competitor is Frigid</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ST</td>
<td>Say Other Woman had an Abortion</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LT</td>
<td>Say Competitor is Loose</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
In order to test the main effects and interactions of gender and sex ratio condition on selected mating strategies, a MANOVA was conducted. These outcome variables were not coupled with the other outcomes examined in this study because sexual strategies were chosen before receiving feedback about their success at finding a significant other. Therefore, all other outcomes will be included in a separate MANOVA using gender, sex ratio condition, and feedback condition as fixed factors. The results of this analysis demonstrate that there were no main effects of gender or sex ratio on use of short term, long-term, derogation, or promotion strategies (see Table 3.4). There were also no significant interactions between these fixed factors on any of these outcome variables.

Table 3.4
Effects of Gender and Sex Ratio Condition on Use of Sexual Strategies

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
<th>Sex Ratio Condition</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Female-Biased</td>
<td>Male-Biased</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>F</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Derogation</td>
<td>.159</td>
<td>1.093</td>
<td>.213</td>
<td>.951</td>
<td>.143</td>
<td>.258</td>
<td>1.127</td>
<td>.133</td>
</tr>
<tr>
<td>ST</td>
<td>8.261</td>
<td>2.489</td>
<td>7.955</td>
<td>2.368</td>
<td>.814</td>
<td>8.090</td>
<td>2.348</td>
<td>7.956</td>
</tr>
<tr>
<td>LT</td>
<td>7.290</td>
<td>2.875</td>
<td>7.620</td>
<td>2.838</td>
<td>.743</td>
<td>7.336</td>
<td>2.881</td>
<td>7.778</td>
</tr>
</tbody>
</table>

* p < .05, **p < .01, ***p < .001

While the data for selected strategies was not significant, it did trend in the expected directions. Specifically, it appears as though men in the female-biased condition were more likely to select short-term strategies than men in the male-biased condition, and men in the male-biased condition were more likely to select long-term strategies than men in the female-biased condition (see Figures 3.1 and 3.2).
Figure 3.1
Effects of Sex Ratio Condition and Gender on Use of Short-Term Sexual Strategies

Figure 3.2
Effects of Sex Ratio Condition and Gender on Use of Long-Term Sexual Strategies
An additional MANOVA was conducted to test the effects of gender, sex ratio condition, and feedback condition on sociosexuality, mate value, and personal sense of power (see Table 3.5). This analysis resulted in main effects of gender on past casual sex behaviors (SOI behavior subscale; $F(1, 280) = 4.315, p = .039, \eta^2 = .021$), attitudes toward casual sex (SOI attitudes subscale; $F(1, 280) = 10.924, p = .001, \eta^2 = .052$), desire for casual sex (SOI desire subscale; $F(1, 280) = 14.934, p < .001, \eta^2 = .067$) and overall willingness to engage in casual sex (SOI sum score; $F(1, 280) = 16.210, p < .001, \eta^2 = .074$). Reports demonstrated no difference in sociosexuality by sex ratio condition or feedback condition. However, there was a marginally significant interaction between gender, sex ratio condition, and feedback condition on desire for casual sex (SOI desire subscale; $F(1, 280) = 2.457, p = .088, \eta^2 = .022$). In the unsuccessful feedback condition, there does not appear to be a difference within genders for men or women, while it appears that males are consistently higher in their desire for casual sex. For the successful condition, males in the female-biased condition demonstrated a greater desire for casual sex than males in the male-biased condition. There does not appear to be a difference within females for this feedback condition. Finally, the neutral feedback condition shows a seemingly drastic difference for both men and women such that men in the female-biased condition report a lower desire for casual sex than men in the male-biased condition, while women in the female-biased condition report a greater desire for casual sex than women in the male-biased condition (see Figures 3.3, 3.4, and 3.5).
Figure 3.3
Effects of Sex Ratio Condition and Gender on Desire for Casual Sex in the Unsuccessful Feedback Condition

Figure 3.4
Effects of Sex Ratio Condition and Gender on Desire for Casual Sex in the Successful Feedback Condition
Also included in the above mentioned MANOVA were the outcome variables for mate value and personal sense of power. According to this analysis, there were no main effects of sex ratio or feedback condition on mate value (as measured by MVI-7 and CMVS) or sense of power. However, there was a main effect of gender on mate value (as measured by CMVS) with males tending to report a higher mate value than females, $F(1, 221) = 4.507$, $p = .035$, $\eta^2 = .022$. Furthermore, there appeared to be a significant interaction between gender and sex ratio condition on mate value as measured by the CMVS ($F(1, 280) = 3.999$, $p = .047$, $\eta^2 = .019$), such that males in the female-biased condition reported a higher mate value than males in the male-biased condition (see Figure 3.6).
Figure 3.6
Effects of Sex Ratio Condition and Gender on Mate Value

Additionally, mate value as measured by the MVI-7 attainable short term partner subscale approached significance for an interaction between gender and sex ratio ($F(1, 280) = 2.921, p = .089, \eta^2 = .014$). (see Figure 3.7).
Finally, there was no main effect of gender or sex ratio condition, or interaction between these factors, on personal sense of power. However, though not a significant interaction, the results did trend in the anticipated direction, with males in the female-biased condition reporting a greater sense of power than those in the male-biased condition, and females in the male-biased condition reporting a greater sense of power than those in the female-biased condition (see Figure 3.8). Additionally, there was a significant main effect of feedback condition on sense of power ($F(1, 280) = 3.798, p = .024, \eta^2 = .036$), illustrating that those in the successful feedback condition reported a greater sense of personal power.
Figure 3.8
Effects of Sex Ratio Condition and Gender on Personal Sense of Power

![Graph showing the effects of sex ratio condition and gender on personal sense of power.](image)

1. What is your gender identity?
Table 3.5  
Effects of Sex Ratio Condition, Gender Identity, and Feedback Condition on Mate Value, Sense of Power, and Sociosexuality

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Feedback Condition</th>
<th></th>
<th>Sex Ratio Condition</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td></td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>Unsuccessful</td>
<td>Successful</td>
<td></td>
<td>Female-Biased</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVI-7 (Self)</td>
<td>1.526</td>
<td>.886</td>
<td>1.416</td>
<td>.704</td>
<td>1.873</td>
</tr>
<tr>
<td>MVI-7 (ST)</td>
<td>1.537</td>
<td>.820</td>
<td>1.710</td>
<td>.725</td>
<td>1.847</td>
</tr>
<tr>
<td>MVI-7 (LT)</td>
<td>1.847</td>
<td>.668</td>
<td>1.799</td>
<td>.871</td>
<td>2.061</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVI-7 (Self)</td>
<td>1.547</td>
<td>.685</td>
<td>1.656</td>
<td>.607</td>
<td>1.687</td>
</tr>
<tr>
<td>MVI-7 (ST)</td>
<td>1.659</td>
<td>.677</td>
<td>1.615</td>
<td>.846</td>
<td>1.854</td>
</tr>
<tr>
<td>MVI-7 (LT)</td>
<td>1.967</td>
<td>.661</td>
<td>1.939</td>
<td>.677</td>
<td>2.110</td>
</tr>
<tr>
<td>CMVS</td>
<td>96.767</td>
<td>16.754</td>
<td>98.395</td>
<td>15.945</td>
<td>97.672</td>
</tr>
<tr>
<td>Sense of Power</td>
<td>4.735</td>
<td>.984</td>
<td>4.605</td>
<td>1.059</td>
<td>4.787</td>
</tr>
</tbody>
</table>

* p < .05, **p < .01, ***p < .001
To test the hypothesis that sociosexuality is a function of ecological condition, and more specifically whether personal sense of power moderates the relationship between sex ratio and sociosexuality, a hierarchical multiple regression analysis was conducted. In the first step, two variables were included: sex ratio and personal sense of power. These variables accounted for a significant amount of variance in participants' sociosexuality, $R^2 = .058$, $F(2, 268) = 8.118, p < .001$. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between sex ratio and power was created (Aiken & West, 1991).

Next, the interaction term between sex ratio condition and power was added to the regression model. While this second model including the interaction term was significant ($F(3, 268) = 5.424, p = .001$), the change in $R^2$ was not significant, $\Delta R^2 = .000$, $\Delta F(1, 265) = .090, p = .765$. $b = 12.103$, $t(265) = 2.041, p = .042$. This suggests that power did not moderate the relationship between sex ratio and sociosexuality in this population (see Table 3.9).

Table 3.6
Test of Moderating Effects of Power on Sex Ratios and Sociosexuality

<table>
<thead>
<tr>
<th>Step 1</th>
<th>$b$</th>
<th>SE $b$</th>
<th>$\beta$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>11.024</td>
<td>4.704</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>-.277</td>
<td>1.796</td>
<td>-.009</td>
<td>.878</td>
</tr>
<tr>
<td>Sense of Power</td>
<td>3.902</td>
<td>.968</td>
<td>.240</td>
<td>.000</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>12.103</td>
<td>5.931</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>-3.108</td>
<td>9.619</td>
<td>-.103</td>
<td>.747</td>
</tr>
<tr>
<td>Sense of Power</td>
<td>3.672</td>
<td>1.237</td>
<td>.226</td>
<td>.003</td>
</tr>
<tr>
<td>Sex Ratio*Sense of Power</td>
<td>.597</td>
<td>1.994</td>
<td>.097</td>
<td>.765</td>
</tr>
</tbody>
</table>

*Note. $R^2 = .058$ for Step 1 ($p < .001$); $\Delta R^2 = .000$ for Step 2 ($p = .765$)
To further test the contribution of sex ratio condition, feedback condition, gender on the various outcome variables (as well as the potential moderating effects of power), a series of exploratory hierarchical regression analyses were conducted. In the first hierarchical regression analysis, sex ratio condition and gender were entered in Step 1, feedback condition was entered in Step 2, and previous casual sex behaviors (SOI behaviors subscale) and personal sense of power were entered in Step 3 in order to determine their overall contribution to the variance in willingness to engage in casual sex (SOI sum score). Though gender identity ($r = -.329$) and previous casual sex behaviors (.730) were significantly correlated with overall willingness to engage in casual sex, we can ascertain that these variables do not violate the assumption of multicollinearity as neither of these variables is correlated with overall willingness to engage in casual sex at $r > .9$ (Field, 2013). Thus we can conclude that these variables are indeed measuring different constructs. Additionally, according to the Durbin-Watson statistic produced by this analysis (Durbin-Watson = 1.908), the assumption of independent errors is also met. Furthermore, according to the ANOVA output generated by this analyses, each of the three models computed was significantly better than using the mean.

When examining the regression coefficients used in this model, we see that only gender identity and previous casual sex behaviors significantly contributed to this model (see Table 3.6). Specifically, being male was associated with a higher willingness to engage in casual sex ($b = -8.018$), as did having more previous casual sex experiences ($b = 2.217$). Furthermore, as previous casual sex experiences increases by one standard deviation (4.745), willingness to engage in casual sex increases by .694 standard deviations. Altogether, sex ratio condition, gender identity, feedback condition, previous casual sex
behaviors, and sense of power accounted for approximately 48% of the variance in overall willingness to engage in casual sex.

Table 3.7
Hierarchical Regression Model for Sociosexuality

<table>
<thead>
<tr>
<th>Step 1</th>
<th>b</th>
<th>SE B</th>
<th>( \beta )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>50.358</td>
<td>3.936</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>-0.803</td>
<td>1.754</td>
<td>-0.027</td>
<td>.648</td>
</tr>
<tr>
<td>Gender Identity</td>
<td>-11.609</td>
<td>2.085</td>
<td>-0.324</td>
<td>.000</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>48.533</td>
<td>4.264</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>-0.827</td>
<td>1.754</td>
<td>-0.027</td>
<td>.472</td>
</tr>
<tr>
<td>Gender Identity</td>
<td>-11.982</td>
<td>2.111</td>
<td>-0.335</td>
<td>.000</td>
</tr>
<tr>
<td>Feedback Condition</td>
<td>1.215</td>
<td>1.095</td>
<td>0.065</td>
<td>.286</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>18.579</td>
<td>4.279</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>0.058</td>
<td>1.204</td>
<td>0.002</td>
<td>.961</td>
</tr>
<tr>
<td>Gender Identity</td>
<td>-7.953</td>
<td>1.465</td>
<td>-0.222</td>
<td>.000</td>
</tr>
<tr>
<td>Feedback Condition</td>
<td>1.249</td>
<td>0.750</td>
<td>0.067</td>
<td>.097</td>
</tr>
<tr>
<td>SOI Behaviors</td>
<td>2.140</td>
<td>0.131</td>
<td>0.673</td>
<td>.000</td>
</tr>
<tr>
<td>Sense of Power</td>
<td>1.623</td>
<td>0.660</td>
<td>0.100</td>
<td>.014</td>
</tr>
</tbody>
</table>

Note. \( R^2 = .11 \) for Step 1 \((p < .001)\); \( \Delta R^2 = .004 \) for Step 2 \((p = .268)\); \( \Delta R^2 = .476 \) for Step 3 \((p < .001)\)

A similar hierarchical regression analysis was conducted to explore the independent contributions of sex ratio condition, gender identity, sense of power, and previous casual sex experiences on mate value (as measured by CMVS). Feedback condition was eliminated from this model as it did not appear to contribute significantly to any of the outcome variables. Thus, sex ratio condition and gender identity were entered in Step 1 and sense of power and previous casual sex behaviors were entered in Step 2 of this analysis (see Table 3.7). Though gender identity \((r = -.121)\), previous casual sex behaviors \((.459)\), and personal sense of power \((r = .410)\) were significantly correlated with overall willingness to engage in casual sex, we can ascertain that these variables do not violate the assumption of
multicollinearity as neither of these variables is correlated with overall willingness to engage in casual sex at $r > .9$ (Field, 2013). Thus we can conclude that these variables are indeed measuring different constructs. Additionally, according to the Durbin-Watson statistic produced by this analysis (Durbin-Watson = 2.09), the assumption of independent errors is also met. Furthermore, according to the ANOVA output generated by this analyses, the first model (which included gender identity and sex ratio condition) was not significantly better than the mean at predicting mate value, whereas the second model (which also included sense of power, and previous casual sex behaviors) was significantly better than the mean.

Table 3.8
Hierarchical Regression Model for CMVS

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>SE $B$</th>
<th>$\beta$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>108.160</td>
<td>5.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>-.819</td>
<td>2.294</td>
<td>-.023</td>
<td>.722</td>
</tr>
<tr>
<td>Gender Identity</td>
<td>-5.151</td>
<td>2.671</td>
<td>-.122</td>
<td>.055</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>64.799</td>
<td>6.430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>-.958</td>
<td>1.922</td>
<td>-.026</td>
<td>.619</td>
</tr>
<tr>
<td>Gender Identity</td>
<td>-2.766</td>
<td>2.259</td>
<td>-.066</td>
<td>.222</td>
</tr>
<tr>
<td>SOI Behaviors</td>
<td>1.410</td>
<td>.203</td>
<td>.379</td>
<td>.000</td>
</tr>
<tr>
<td>Sense of Power</td>
<td>6.436</td>
<td>1.049</td>
<td>.332</td>
<td>.000</td>
</tr>
</tbody>
</table>

$Note. R^2 = .11$ for Step 1 ($p = .153$); $\Delta R^2 = .303$ for Step 2 ($p < .001$)

When examining the regression coefficients used in this model, we see that only sense of power and previous casual sex behaviors significantly contributed to this model. Specifically, having a greater sense of power ($b = 6.436$) and a higher number of previous casual sex experiences ($b = 1.410$) was associated with a higher perceived mate value. Furthermore, as sense of personal power increases by one standard deviation (.932), mate value increases by .332 standard deviations. Additionally, as previous casual sex behaviors
increases by one standard deviation (4.856), mate value increases by .379 standard deviations. Altogether, sex ratio condition, gender identity, previous casual sex behaviors, and sense of power accounted for approximately 31% of the variance in mate value (as measured using CMVS).

A separate hierarchical regression analysis was conducted to explore the independent contributions of sex ratio condition, gender identity, sense of power, and previous casual sex experiences on mate value as measured by the MVI-7 Self subscale. Feedback condition was eliminated from this model as it did not appear to contribute significantly to any of the outcome variables. Thus, sex ratio condition and gender identity were entered in Step 1 and sense of power and previous casual sex behaviors were entered in Step 2 of this analysis (see Table 3.8). Though previous casual sex behaviors (.234), and personal sense of power ($r = .472$) were significantly correlated with overall willingness to engage in casual sex, we can ascertain that these variables do not violate the assumption of multicollinearity as neither of these variables is correlated with overall willingness to engage in casual sex at $r > .9$ (Field, 2013). Thus we can conclude that these variables are indeed measuring different constructs. Additionally, according to the Durbin-Watson statistic produced by this analysis (Durbin-Watson = 1.956), the assumption of independent errors is also met. Furthermore, according to the ANOVA output generated by this analyses, the first model (which included gender identity and sex ratio condition) was not significantly better than the mean at predicting mate value, whereas the second model (which also included sense of power, and previous casual sex behaviors) was significantly better than the mean.
Table 3.9
Hierarchical Regression Model for Mate Quality of Realistically Attainable Short-Term Partner

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>SE B</th>
<th>β</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.549</td>
<td>.198</td>
<td></td>
<td>.620</td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>-.043</td>
<td>.086</td>
<td>-.032</td>
<td>.643</td>
</tr>
<tr>
<td>Gender Identity</td>
<td>.048</td>
<td>.104</td>
<td>.029</td>
<td>.620</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-.226</td>
<td>.263</td>
<td></td>
<td>.551</td>
</tr>
<tr>
<td>Sex Ratio Condition</td>
<td>-.045</td>
<td>.075</td>
<td>-.033</td>
<td>.227</td>
</tr>
<tr>
<td>Gender Identity</td>
<td>.112</td>
<td>.093</td>
<td>.068</td>
<td>.010</td>
</tr>
<tr>
<td>SOI Behaviors</td>
<td>.021</td>
<td>.008</td>
<td>.150</td>
<td>.000</td>
</tr>
<tr>
<td>Sense of Power</td>
<td>.321</td>
<td>.041</td>
<td>.442</td>
<td></td>
</tr>
</tbody>
</table>

Note. $R^2 = .002$ for Step 1 ($p = .783$); $\Delta R^2 = .245$ for Step 2 ($p < .001$)

When examining the regression coefficients used in this model, we see that only sense of power and previous casual sex behaviors significantly contributed to this model. Specifically, having a greater sense of power ($b = .321$) and a higher number of previous casual sex experiences ($b = .021$) was associated with a higher perceived mate value.

Furthermore, as sense of personal power increases by one standard deviation (.932), mate value increases by .442 standard deviations. Additionally, as previous casual sex behaviors increases by one standard deviation (4.81), mate value increases by .150 standard deviations. Altogether, sex ratio condition, gender identity, previous casual sex behaviors, and sense of power accounted for approximately 50% of the variance in mate value (as measured using MVI-7 Self subscale).

Finally, in further exploration of the relationship between power, sociosexuality, and mate value, a correlation analysis was conducted (see Table 3.9). This analysis revealed several important relationships. Namely, that personal sense of power was directly related to reporting of previous casual sex behaviors, attitudes toward, desire for, and willingness to engage in casual sex, as well as mate value.
Table 3.10
Study 3 Correlation Coefficients

<table>
<thead>
<tr>
<th>SOP</th>
<th>SOI Behaviors</th>
<th>SOI Attitudes</th>
<th>SOI Desire</th>
<th>SOI Sum Score</th>
<th>MVI-7 (Self)</th>
<th>MVI-7 (ST)</th>
<th>MVI-7 (LT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOI Behaviors</td>
<td>.199**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOI Attitudes</td>
<td>.215***</td>
<td>.524***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOI Desire</td>
<td>.179**</td>
<td>.368***</td>
<td>.532***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOI Sum Score</td>
<td>.244***</td>
<td>.729***</td>
<td>.878***</td>
<td>.809***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVI (Self)</td>
<td>.467***</td>
<td>.229***</td>
<td>.063</td>
<td>.082</td>
<td>.149*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVI (ST)</td>
<td>.243***</td>
<td>.071</td>
<td>-.057</td>
<td>-.071</td>
<td>-.024</td>
<td>.514***</td>
<td></td>
</tr>
<tr>
<td>MVI (LT)</td>
<td>.335***</td>
<td>.084</td>
<td>-.035</td>
<td>-.060</td>
<td>.004</td>
<td>.599***</td>
<td>.709***</td>
</tr>
<tr>
<td>CMVS</td>
<td>.417***</td>
<td>.458***</td>
<td>.264***</td>
<td>.280***</td>
<td>.389***</td>
<td>.574***</td>
<td>.394***</td>
</tr>
</tbody>
</table>

* p < .05, **p < .01, ***p < .001

Discussion

Sexual Strategies Employed in Skewed Sex Ratios

Participants in this mating game were presented with a list of 49 strategies that they could use to attract a romantic/sexual partner. A frequency distribution was created to determine if certain strategies were more commonly used (see Table 3.4). This particular distribution examined gender differences in strategy usage, and clearly demonstrated that there were no tangible differences between men and women in their employment of the various strategies. Overall, participants were more likely to select promotion strategies (i.e., strategies designed to make oneself look good), than derogation strategies (i.e., strategies designed to make one’s competitor(s) look bad). Specifically, participants most often chose to flirt, maintain good hygiene, act like themselves, make themselves look good, and to find common interests in the hopes of attracting a romantic/sexual partner. Of the derogation tactics chosen, the most common were suggesting that one’s competitor has an STI, saying that one’s competitor sleeps around, saying that one’s competitor cheats on their partners, claiming that their competitor was gay, and saying that one’s competitor
uses people. Once again, participants, in comparison to promotion strategies, very rarely used these derogation strategies.

At the onset of the study, we predicted that individuals in the female-biased condition, regardless of gender would be more inclined toward short-term sexual strategies than those in the male-biased condition (Hypothesis 1). Similarly, we also predicted that individuals in the male-biased condition would employ more long-term sexual strategies than those in the female-biased condition (Hypothesis 2). However, neither of these hypotheses was supported as results demonstrated that there was no main effect of sex ratio condition on the use of long-term or short-term sexual strategies. However, while the data for selected strategies was not significant, it did trend in the expected directions. Specifically, it appears as though men in the female-biased condition were more likely to select short-term strategies than men in the male-biased condition, and men in the male-biased condition were more likely to select long-term strategies than men in the female-biased condition. This trend in results reflects data observed in real-world populations, which suggests that individuals in male-biased populations should be more interested in committed relationships and individuals in female-biased populations should be more interested in casual relationships (Simpson, 1991).

Similarly, Hypotheses 3 and 4 predicted that there would be an interaction between sex ratio and gender identity on the use of promotion and derogation tactics. Specifically, individuals in limited supply (i.e., females in the male-biased condition and males in the female-biased condition) were expected to be more likely to use promotion tactics; and that individuals in over supply (i.e., females in the female-biased condition and males in the male-biased condition) would be more likely to use derogation tactics, respectively.
However, these predictions were also not supported. This null finding is largely due to the fact that participants rarely used derogation tactics, regardless of experimental condition.

**Sex Ratios, Mate Value, and Power**

Previous research has demonstrated that skewed sex ratios have a tremendous impact on the sexual behaviors of members of a population. When considered skewed sex ratios from an economic perspective, skewed populations have a direct impact on the supply of available sexual partners, and therefore impact the demand for this commodity. Individuals in limited supply have a distinct advantage over those in over supply, as they can dictate the qualities and behaviors that are most successful in a given mating market. In reflection of this trend, the present study predicted that there would be an interaction between sex ratio condition and gender on individuals’ perceived mate value (Hypothesis 5) and personal sense of power (Hypothesis 6).

The results of this study support Hypothesis 5, such that males in the female-biased condition reported a higher mate value than those in the male-biased condition. Additionally, while not statistically significant, males in the female-biased reported that they could realistically attain a higher quality mate than males in the male-biased condition did. The results did not reveal an interaction between sex ratio condition and gender for personal sense of power, thus providing no support for Hypothesis 6. While there was no significant interaction, the results did trend in the anticipated direction, with males in the female-biased condition reporting a greater sense of power than those in the male-biased condition, and females in the male-biased condition reporting a greater sense of power than those in the female-biased condition.

**Sex Ratios and Sociosexuality**
Simpson (1991) conducted a multi-nation study exploring the effects of skewed mating markets on sociosexuality. His work concluded that individuals in a male-biased population tend to be more restricted in their sociosexuality, meaning they are less willing to have casual sex, than those in a female-biased population. The present study attempted to examine this finding in an experimental context. Specifically, we predicted that there would be a main effect of sex ratio condition on sociosexuality, such that participants in the male-biased condition would be less willing to engage in casual sex, regardless of gender, than those in the female-biased condition (Hypothesis 7). Results did not support this prediction.

While there was no main effect of sex ratio condition on any of the sociosexuality outcome variables, there did appear to be a main effect of gender on sociosexuality, such that males tended to report a greater desire for, more positive attitudes toward, and an overall greater willingness to engage in casual sex than females did.

Sex Ratios and Failure/Success

Current literature exploring the relationship between sex ratios and sociosexuality has yet to address the specific processes involved in the development of sociosexuality. For example, questions that have yet to be answered include: “How long must you be in a skewed sex ratio population before it begins to have an impact on your sexual behaviors and attitudes?”, “What is the sex ratio ‘tipping point’ that must be achieved before you start to see differences in sexual behaviors and attitudes?”, and “Do you need to experience success/failure at obtaining a partner in a skewed market in order for your sexual behaviors and attitudes are impacted?” The present study sought to address this latter question by randomly assigning participants to either receive feedback telling them they
succeeded in attracting a partner, failed at attracting a partner, or simply thanking them for participating. We predicted that there would be a main effect of feedback condition on mate value (Hypothesis 8a), and that there would be a three-way interaction between sex ratio condition, gender identity, and feedback condition on sociosexuality. Specifically, we predicted that males in the female-biased condition who were successful at obtaining a partner would have a higher sociosexuality score (i.e., would be more unrestricted; Hypothesis 8b), and that females in the male-biased condition who are successful at obtaining a partner would be a lower sociosexuality score (i.e., would be more restricted; Hypothesis 8c).

Results did not demonstrate a main effect of feedback condition on mate value, thus providing no support for Hypothesis 8a. On the other hand, Hypotheses 8b and 8c were partially supported. Specifically, there was a marginally significant three-way interaction between sex ratio condition, gender identity, and feedback condition on desire for casual sex, though not for any of the other sociosexuality variables (i.e., SOI attitudes, SOI behaviors, and SOI sum score). This interaction revealed that when participants were told they were successful at obtaining a mate, males in the female-biased condition demonstrated a greater desire for casual sex than males in the male-biased condition and provides support for Hypothesis 8b. This finding is in-line with previous research on sociosexuality in skewed sex ratio populations. However, female participants did not appear to vary by sex ratio condition in respect to their desire for casual sex in this feedback condition. Thus, there was no support for Hypothesis 8c. Additionally, in the neutral feedback condition, in which participants were simply thanked for completing the mating game task, men in the female-biased condition reported a lower desire for casual
sex than men in the male-biased condition, while women in the female-biased condition reported a greater desire for casual sex than women in the male-biased condition. This latter finding only partially supports previous literature. Female participants’ responses were in the expected direction, but male participants’ responses were not. It is unclear why men reported a greater desire for casual sex in the male-biased population.

**Power as a Moderator**

Though power did play a major role in this study, power did not moderate the relationship between sex ratio and sociosexuality – thus providing no support for Hypothesis 9. However, further exploration of the relationship between power as the various other outcome variables revealed that power was significantly related to sociosexuality and mate value. Specifically, those with a greater sense of personal power were more willing to engage in casual sex, showed a greater desire for casual sex, and reported more positive attitudes toward casual sex. Furthermore, those with a greater sense of personal power reported having a higher mate value (i.e., were a greater “catch”), and were more likely to believe that they could obtain a higher quality mate for either a long-term or short-term relationship.

**Limitations**

One of the major limitations of this study is that the mating markets presented to the participants were imagined. Placing participants into a real-world skewed sex ratio would undoubtedly produce more pronounced effects. Additionally, as with many other psychological studies, this research is limited in its generalizability because the sample used consisted solely of college students, who are not only younger than the general population, but also tend to be more educated, wealthier, and more liberal (Foot & Sanford,
2004). Thus, findings with a college-aged sample may differ drastically from a similar study conducted with older males. Additionally, the sample used in this study is more ethnically diverse than the general population of the United States. To ensure the reliability of these findings, future research should attempt to replicate this study with different populations and cultures.
General Discussion

Sexual Strategies Theory, Power, and Goal Pursuit

Sexual Strategies Theory proposes that men and women have different priorities when entering into sexual relationships, and that these priorities have led men and women to evolve specific strategies and preferences to help them attain their goals. This theory puts forth a complicated web of how reproductive potential and parental investment intertwine to create list of concrete strategies and preferences that men and women will employ to attract and/or maintain a sexual partner (Schmitt & Buss, 1996). Since the formation of this theory, a number of researchers have attempted to qualify the proposed sexual strategies set forth by this theory. The suggested qualifying factors that may alter these proposed strategies include operational sex ratios (Pederson, 1991), parasite prevalence (Gangestad, Haselton, & Buss, 2006), resource availability (Greiling & Buss, 2000), and cultural and religious norms (Pederson, 1991). This paper seeks to add another factor to this list: power.

Previous research demonstrates that power may activate goal pursuit (Galinsky, Gruenfeld, & Magee, 2003). Specifically, feeling powerful may encourage individuals to take greater risks, create more lofty goals, and to approach those goals. This paper considers how feelings of power may activate goal pursuit in a mating context, and how those goals then relate back to Sexual Strategies Theory. According to Sexual Strategies Theory, women tend to prefer long-term relationships as these provide both resources and support for potential offspring, whereas men tend to prefer short-term relationships which would allow them to have the greatest reproductive potential (Schmitt & Buss, 1996). Based on these predictions, if men and women are primed to feel powerful, we should expect them to
be more likely to pursue their goals (i.e., a long-term relationship for women and a short-term relationship for men) than if they are primed to feel powerless. Study 1 provided some evidence for these predictions. When just considering gender differences alone, regardless of power condition, men demonstrated a greater interest in short-term relationships, and greater desire for, more positive attitudes toward, and a greater willingness to engage in casual sex. Interestingly, the results of this first study also demonstrated some combined effects of power condition and gender. Specifically, female participants in the low-power condition reported a greater desire for, more positive attitudes toward, and greater overall willingness to engage in casual sex than those in the high-power condition. Thus, women with power were more restricted in terms of their sociosexuality than those without power, providing evidence that power promotes goal pursuit – the goal in this case being an invested relationship. This also provides some support for Sexual Exchange Theory (Edwards, Barber, & Dziurawiec, 2014) and Sexual Economics Theory (Baumeister & Vohs, 2004), which both propose that women may see sex as a commodity that can be traded. It is possible that women in the low-power condition reported a greater interest in casual sex because they could trade casual sex for social power. There was no main effect of power on interest in casual sex for men, however. This may either suggest that men have an inherently greater sense of power, independent of the priming task used in this study, or that power doesn’t play as big of a role in sexual behaviors and attitudes for men.

While Study 1 seemingly supports the assertions made by Sexual Strategies Theory, Study 2 provides some contradictory results. Both Studies 1 and 2 utilized the same narrative priming task and included the SOI-R. As such, one would expect similar effects of
power and gender on the sociosexuality outcome variables. However, the results from these two studies were anything but similar. Specifically, women in the high-power condition, in comparison to those in the low-power condition, reported more previous casual sex behaviors, greater desire for, and greater overall willingness to engage in casual sex. This is the opposite pattern to what we saw in Study 1. There are several potential explanations for this: 1) the samples used for these two studies were statistically different (possible, though unlikely), 2) selecting faces that the participants’ found attractive, and then answering questions about whether those faces would also find them attractive primed them for a mating goal, or 3) the names of the studies influenced the expectations of those who volunteered for the studies and thus led to responses based on social desirability. In reference to this last point, Study 1 was advertised as “What’s Love Got To Do With It: Attitudes Toward Romantic Relationships Study,” and Study 2 was advertised as “Rules of Attraction: Romantic Attraction Study.” These names could very well have influenced how participants approached the questionnaires. Of these three potential explanations, we believe that the second is likely the culprit. This brings up an important point: when doing research on how power influences attitudes and behaviors, consider exactly what goals are being activated and pursued.

**Attraction Toward and Expectations of Attraction From Others**

Previous literature has demonstrated that people with power tend to overestimate how often others find them attractive (Kunstman & Maner, 2011). The data presented in Study 2 support this claim. Specifically, those in the high-power condition (regardless of gender) were more likely to believe that the individuals they found attractive would also find them attractive, in comparison to those in the low-power condition. Additionally,
current literature suggests that individuals with power are more inclined to act sexually aggressively toward others (Chapleau & Oswald, 2009), to stand closer to others (Keltner, Gruenfeld, & Anderson, 2003), and to make sexually suggestive comments to others (Bargh, Raymond, Pryor, & Strack, 1995). The results of this study also support the previous literature, as individuals in the high-power condition (particularly women) showed a greater attraction to sexual aggression than those in the low-power condition.

Research investigating the specific facial features that individuals find attractive has often adopted an evolutionary framework. In particular, work by Gangestad, Garver-Agar, Simpson, and Cousins (2007) found that women who were seeking casual sex were more attracted to highly masculine males, whereas women who were seeking more long-term commitments were attracted to less masculine males. This phenomenon is often referred to as the “Sexy Sons Hypothesis” (Fisher, 1930), and suggests that when women seek short-term sexual relationships they prioritize “good genes” over access to resources. Study 2 sought to investigate this claim through a social lens by investigating how the construct of power may influence the specific facial features that women found attractive. Specifically, this study questioned whether priming women to feel powerful would lead them to be more attracted to masculine facial features (and presumably good genes), rather than less masculine facial features. While the results of this test were not significant, the data did trend in this direction ($F(182) = 2.379, p = .127$), suggesting that women with power may prioritize good genes over access to resources.

**Power and Sexual Aggression**

A central theme in the power literature is how power relates to sexual aggression, particularly in the form of sexual harassment. In addition to exploring the
interconnectedness of sex ratios, power, and sexual behaviors and attitudes, this paper also explores how power influences sexual aggression. The results from Study 2 concluded that power does indeed have a direct impact on attraction to sexual aggression, particularly for women. Specifically, women in the high-power condition reported a greater attraction to sexual aggression, bondage, conventional sex, and unconventional sex than those in the low-power condition. Many of these reported sexual behaviors involve an element of power exchange between sexual partners. If we consider this relationship in the context of skewed sex ratio populations, an immediate connection that can be drawn is to the increased rate of domestic violence and rape in male-biased populations (Pederson, 1991). In these populations, men may commit these violent acts against women as a means to gain power over them and to keep them in that relationship when there is a multitude of other available male partners.

**Sexual Strategies and Sense of Power in a Skewed Mating Market**

Schmitt and Buss (1996) proposed a number of specific strategies that men and women employ to attract a romantic/sexual partner. These strategies were divided into short-term and long-term strategies, and then further separated into derogation and promotion strategies. Aside from gender, one widely acknowledged influence on the selection of sexual strategies is the sex ratio of the mating market. As noted by Simpson (1991), the sex in limited supply largely dictates the sexual climate of any given mating market. When males are in limited supply (i.e., female-biased population), women must cater to the wants and desires of men in order to attract a sexual partner. As such, short-term strategies are more prevalent, as is casual sex and out-of-wedlock births. Conversely, when females are in limited supply (i.e., male-biased population), men must cater to the wants and desires of
women. This type of skewed mating market typically results in higher rates of marriage amongst women, less casual sex, and greater rates of prostitution (Simpson, 1991).

Study 3 sought to experimentally manipulate the sex ratio of a small mating market in order to explore the conscious decisions that individuals make when attempting to attract a romantic/sexual partner. Furthermore, this study considered personal sense of power as a potential moderator of the relationship between sex ratios and sexual strategies. Interestingly, there were no gender differences for short-term, long-term, derogation, or promotion tactics used by participants. This contradicts the predictions set forth by Schmitt and Buss (1996) in Sexual Strategies Theory.

While sex ratio condition did not directly impact personal sense of power, there was a two-way interaction between gender identity and feedback condition for this outcome variable. Specifically, males felt a greater sense of personal power when successful at obtaining a mate than in the neutral or unsuccessful conditions, with the lowest power experienced in the neutral condition. Women, on the other hand, didn’t appear to be influenced by the feedback.

**Sociosexuality as a Function of Sex Ratio and Power**

As mentioned previously, the availability of sexual partners deeply influences the sexual behaviors and attitudes of a given mating market. In male-biased populations, individuals tend to be relatively restricted (i.e., less willing to engage in casual sex) in their sociosexuality; whereas in female-biased populations, individuals tend to be relatively unrestricted (i.e., more willing to engage in casual sex) in their sociosexuality. One of the major claims of this paper is that being a member of the sex in limited supply should
directly influence one’s sense of personal power, thus impacting one’s willingness to
engage in casual sex and one's overall mate value.

Studies 1 and 2 both show direct effects of power on sociosexuality, and to a certain extent mate value. In Study 1, participants’ in the low-power condition reported more unrestricted sociosexuality than those in the high-power condition. When splitting this analysis by gender, this pattern remained significant for women, but not for men. Additionally, Study 1 demonstrated a nearly significant main effect of power on the quality of mate participants believed they could obtain for a short-term sexual relationship. In other words, individuals in the high-power condition believed that they could obtain a higher-quality mate for a short-term relationship than those in the low-power condition. In Study 2, the pattern flips with individuals in the high-power condition reporting a more unrestricted sociosexuality than those in the low-power condition. Once again, when this analysis was split by gender, this pattern remained significant for women but not for men. Despite these seemingly contradictory findings, it appears that personal sense of power does indeed impact individuals’ attitudes and desires for casual sex. These findings also support previous literature suggesting that women’s sexuality is more malleable than men’s (Overbeek, Nelemans, Karremans, & Engels, 2013).

In Study 3, a simple correlation output reveals that the personal sense of power resulting from the experimental conditions was positively correlated with sociosexual behaviors, attitudes, desires, and overall sociosexuality, as well as perceived mate value, and the mate quality that individuals believed they could obtain for both short-term and long-term sexual liaisons. Arguably the most interesting effect of power on sociosexuality is the link between power and previous casual sex behaviors. Obviously the manipulations
used in this study did not alter individuals’ previous experiences, but they did alter how powerful individuals felt – which in turn influenced individuals’ willingness to report past casual sex behaviors. Simply put, power was positively related to previous casual sex experiences (i.e., the more power one felt, the more previous casual sex experiences they reported). This finding was also reported in Study 2, but only for female participants. There are two possible causal explanations for this. Either feeling powerful made women more comfortable with reporting casual sex behaviors (which is a social taboo for women), or feeling powerless made women under-report their previous casual sex experiences in an attempt to appear more chaste and increase their mate value. There is some evidence that, for women, having fewer sexual partners is desirable. This is the central tenet of Sexual Restraint Theory (Busby, Willoughby, & Carroll, 2013), and other previous work that has found previous sexual experience to be indirectly related to desirability as both a potential dating and marital partner (Williams & Jacoby, 1989).

While this paper does provide conclusive evidence that power has a direct impact of sexual behaviors and attitudes, there was no evidence supporting the prediction that power moderates the relationship between sex ratios and sociosexuality. However, it does appear that sense of power, along with sex ratio, feedback condition, gender, and previous casual sex experiences, does contribute significantly to the variability in sociosexuality. Thus, while power may not directly moderate the relationship between sex ratios and sociosexuality, it does play a major role.

**Future Research**

Future research should continue to address the possible influence of power on women’s sexual behaviors and attitudes, particularly as it relates to Sexual Economics Theory and
Sexual Exchange Theory. The research presented in this paper suggests that feelings of power have the potential to influence willingness to engage in casual sex, attitudes toward casual sex, and even the reporting of previous casual sex behaviors. This latter finding is a particularly important consideration, as previous literature exploring the sexual behaviors and norms of men and women has largely ignored social power as a potential moderating factor. Instead, much of the current literature stresses the impact of biological factors, such as reproductive potential and minimum parental investment on sexual behaviors and attitudes. To address this gap, future research should explore how power influences women’s sexual behaviors and attitudes, particularly the utility of sex as a means to gain power, both in experimental and real-world settings.

Furthermore, future research should explore how goal pursuit factors into this equation. The research presented in this paper, particularly by Studies 1 and 2, suggests that priming women to pursue a mating goal has a drastic impact on women’s resulting attitudes and behaviors. Activating other goals, such as career success, would likely impact this relationship between power and women’s sexual attitudes and behaviors. Additionally, exploring behavioral measures of mating goal pursuit may prove to be a fruitful endeavor. For example, behavioral outcomes such as how closely women choose to sit to an attractive man after activating a mating goal and priming them to feel either powerful or powerless could provide additional evidence for the relationship between power, goal pursuit, and sexual behaviors and attitudes.

Additionally, future research should explore how power influences sexual selectivity (i.e., how selective individuals are when choosing a potential romantic/sexual partner). Some particular areas of interest for which there is a paucity of research include how
power influences individuals’ attraction toward others, their approach behaviors toward others (i.e., whether they choose to pursue their object of desire), the relative quality of the mate an individual believes they can obtain, and the impact of rejection on self-perception. Much of the previous power and sexuality literature suggests that people in power are overtly sexual beings that express their sexual interests almost indiscriminately (Pryor & Stoller, 1994). The research presented in this paper depicts a different story – specifically, that people in power may actually be more selective and prone to holding out until a suitable (i.e., high quality) mate becomes available to them. Future research should explore these outcomes in both experimental and real-world settings. This research should also explore how feelings of power influence individuals’ beliefs about their own physical qualities (i.e., how attractive they perceive themselves as being).

In the current climate of online dating and geo-location “hook-up” apps, future research should consider how feelings of power and access to the other sex influences individuals’ dating behaviors. For example, an app such as Tinder, which uses individuals’ geographical location to show members photos of individuals in their area that are romantically/sexually available, could be used to see how feelings of power or access to the other sex influences the number of individuals a person finds attractive (or how many they pass over) and the particular qualities that they screen for when selecting a potential partner. It would also be interesting to study how individuals rationalize rejection in this context. Particularly, do feelings of power buffer the potential negative effects of rejection?

While many of the proposed future research directions take place in an experimental setting, one important area of research that would benefit from studying the relationship between power and sexual behaviors is sexual assault on college campuses.
Recently, there appears to be a dramatic upswing in reports of college sexual assaults, many of which involve fraternity members and athletes. These individuals, due to their group membership, possess a considerable amount of social status and power within the college population. Previous literature has demonstrated that power is directly related to rape myth acceptance (Chapleau & Oswald, 2009), and that men are more prone to sexual aggression than women (Richardson, 2014). Thus, research exploring how power impacts sexual approach behaviors and responses to rejection would be particularly applicable to recent efforts to end college sexual assaults on campus. Recent efforts to curb this trend include suspending fraternities from campus events, and removing offending athletes from sports teams (DeKeseredy, 1997). While these efforts do publicly condemn instances of sexual assault, they do not eliminate the threat. Research on how power and social status influence sexual behaviors and attitudes could be applied to this context to create interventions.

Furthermore, the mating game vignette presented in Study 3, while resulting in some interesting outcomes, did not support much of what current literature proposes about skewed sex ratios or Sexual Strategies Theory. One potential reason for this is that the vignette scenario of being stranded on a deserted island was not salient enough to result in any changes in attitudes. Instead, future research should explore a similar concept in a face-to-face setting. Perhaps the results would be more consistent with the current literature if individuals were to actually play this game with other participants in a skewed sex ratio group. This would provide participants with the opportunity to strategize how they would attract a mate in a more tangible context.
Conclusion

“Everything in the world is about sex except sex. Sex is about power.” – Oscar Wilde.

The results of this paper unequivocally support Wilde’s assertions about sex and power. Specifically, power was shown to influence attitudes toward, desires for, and willingness to engage in casual sex. And furthermore, power even influenced the reporting of previous casual sex behaviors – at least for women. These findings suggest that for individuals who have activated a mating goal, having power results in the development of a more unrestricted sociosexuality. When a mating goal hasn’t been activated, however, women who felt powerless reported higher levels of sociosexuality (i.e., more unrestricted) than those who felt powerful. This finding, while seemingly contradictory, supports Sexual Economics Theory, which proposes that women view sexuality as a commodity. Thus women who were primed to feel powerless may have changed their attitudes toward casual sex as a way to bargain for power. Additionally, power was shown to have a direct impact on attraction to various forms of sexual aggression, including attraction to bondage, conventional sex, and unconventional sex. This is consistent with previous research connecting power to sexual harassment. Feeling powerful, as opposed to feeling powerless, also impacted the mate quality that individuals thought they could realistically attain for a short-term relationship, such that people with power perceived themselves as capable of obtaining a higher quality mate for a short-term relationship.

The data reported in this paper also demonstrated how gender, skewed sex ratios, and success or failure at obtaining a sexual partner impacted sexual behaviors, attitudes, and beliefs. Specifically, while males reliably demonstrated greater desires for casual sex, sex ratio and success/failure feedback further influenced the impact of gender, such that
men who were successful at obtaining a partner in the female-biased condition reported
the greatest desire for casual sex. Additionally, sex ratio and gender were shown to interact
with each other, such that individuals in limited supply reported having a higher mate
value, and that they would realistically be able to attain a mate of higher quality for a short-
term relationship. These findings support previous research on skewed sex ratio
populations, which largely focuses on how availability of potential partners creates an issue
of supply and demand, through which the sex in limited supply dictates the market
conditions. These studies question previous beliefs about the biological underpinnings of
sexuality, and instead support the idea that power may directly influence the relationship
between gender and sexual behaviors and attitudes.
Appendix A: Power Primes

High Power:

Please recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to get something they wanted, or were in a position to evaluate those individuals. Please describe this situation in which you had power – what happened, how you felt, etc.

Low Power:

Please recall a particular incident in which someone else had power over you. By power, we mean a situation in which someone had control over your ability to get something you wanted, or was in a position to evaluate you. Please describe this situation in which you did not have power – what happened, how you felt, etc.
Appendix B: The Self-Attributes Questionnaire (SAQ)

This questionnaire has to do with your attitudes about some of your activities and abilities. For the first ten items below, you should rate yourself relative to other college students your own age by using the following scale:

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<tr>
<th>Bottom</th>
<th>A</th>
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<tr>
<td>5%</td>
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<td>30%</td>
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<td>50%</td>
<td>30%</td>
<td>20%</td>
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An example of the way the scale works is as follows: if one of the traits that follows were “height,” a woman who is just below average in height would choose “E” for this question, whereas a woman who is taller than 80% (but not taller than 90%) of her female classmates would mark “H,” indicating that she is in the top 20% on this dimension.

1. Intellectual
2. Social skills/social competence
3. Artistic and/or musical ability
4. Athletic ability
5. Physical attractiveness
6. Leadership ability
7. Common sense
8. Emotional stability
9. Sense of humor
10. Discipline

Now rate how certain you are of your standing on each of the above traits (you may choose any letter).

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<tr>
<th>A</th>
<th>B</th>
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<th>E</th>
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<th>I</th>
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<tbody>
<tr>
<td>Not at all certain</td>
<td>Moderately certain</td>
<td>Extremely certain</td>
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11-20 (same as items 1-10)

Now rate how personally important each of these domains are to you:

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<th>H</th>
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<tbody>
<tr>
<td>Not at all important to me</td>
<td>Moderately important to me</td>
<td>Extremely important to me</td>
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21-30 (same as items 1-10)
Now rate yourself relative to your “ideal” self – the person you would be if you were exactly the way you would *like* to be:

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</thead>
<tbody>
<tr>
<td></td>
<td>Very short of my ideal self</td>
<td></td>
<td></td>
<td></td>
<td>Somewhat like and somewhat unlike my ideal self</td>
<td></td>
<td></td>
<td></td>
<td>Very much like my ideal self</td>
</tr>
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</table>

31-40 (same as items 1-10)
Appendix C: Mate Value Inventory (MVI-7)

Ambitious
Attractive face
Attractive body
Desires children
Enthusiastic about sex
Faithful to partners
Financially secure
Generous
Good sense of humor
Healthy
Independent
Intelligent
Kind and understanding
Loyal
Responsible
Shares my values
Shares my interests
Sociable
Emotionally stable

-3  -2  -1  0  +1  +2  +3
Extremely low on this trait
Extremely high on this trait

Self Rating: Describe yourself as accurately as possible.

Attainable Short-Term Partner: Given what you have to offer, describe the qualities of the best partner you think you can realistically attract for a brief relationship or fling.

Attainable Long-Term Partner: Given what you have to offer, describe the qualities of the best partner you think you can realistically attract for a long-term (several years or more) romantic relationship.
Appendix D: Components of Mate Value Scale (CMVS)

1. Members of the opposite sex that I like tend to like me back.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree

2. Members of the opposite sex notice me.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree

3. I receive many compliments from members of the opposite sex.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree

4. I receive sexual invitations from members of the opposite sex.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree

5. Members of the opposite sex are attracted to me.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree

6. I can have as many sexual partners as I choose.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree

7. I run into friends wherever I go.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree

8. I have a large network of friends.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree

9. I receive many and frequent invites for social events.
   1 2 3 4 5 6 7
   Strongly disagree       Neutral       Strongly agree
10. I consider myself popular.

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<tbody>
<tr>
<td>Strongly disagree</td>
<td>Neutral</td>
<td>Strongly agree</td>
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11. I often stay at home because there isn't anything to do.

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<td>Strongly disagree</td>
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<td>Strongly agree</td>
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12. I want to have children in my lifetime.

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<td>Strongly disagree</td>
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13. I would make a good parent.

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<td>Strongly disagree</td>
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14. It is important that the opposite sex view me as a good parent.

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<td>Strongly disagree</td>
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15. I want people to think that I am wealthy.

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<td>Strongly disagree</td>
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16. I have a tendency to display my wealth.

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<td>Strongly disagree</td>
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17. I would like members of the opposite sex to consider me physically attractive.

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<tr>
<td>Strongly disagree</td>
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18. I would like members of the opposite sex to consider me sexy.

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<td>Strongly disagree</td>
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19. After I date someone they often want to date me again.

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<td>Strongly disagree</td>
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20. Several members of the opposite sex have had crushes on me in the past 6 months.

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<td>Strongly disagree</td>
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21. I would like members of the opposite sex to hit on me more than they do.

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<td>Strongly disagree</td>
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<td>Strongly agree</td>
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22. I often worry about not having a date.

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<td>Strongly disagree</td>
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</table>
Appendix E: Preferences and Motivations with Regard to Short-Term and Long-Term Mating

1. I prefer short-term sexual relationships.

2. Ideally, I would have many sexual partners.

3. Ideally, I would have one steady sexual partner.

4. I prefer a long-term relationship with one partner.

5. I enter a long-term relationship because it offers me a greater guarantee of sexual relations.

6. I enter a long-term relationship because it offers me a greater guarantee of emotional commitment.

7. If I could maintain a long-term relationship with one partner while having sexual relations outside of my relationship, I would do so.

8. Western society values monogamy between sexual partners.
Appendix F: Sociosexual Orientation Inventory-Revised (SOI-R)

Please respond honestly to the following questions:

1. With how many different partners have you had sex within the past 12 months?
   
   0  1  2  3  4  5-6  7-9  10-19  20+

2. With how many different partners have you had sexual intercourse on one and only one occasion?
   
   0  1  2  3  4  5-6  7-9  10-19  20+

3. With how many different partners have you had sexual intercourse without having an interest in a long-term committed relationship with this person?
   
   0  1  2  3  4  5-6  7-9  10-19  20+

4. Sex without love is OK.
   
   1  2  3  4  5  6  7  8  9
   Strongly disagree  Strongly agree

5. I can imagine myself being comfortable and enjoying “casual” sex with different partners.
   
   1  2  3  4  5  6  7  8  9
   Strongly disagree  Strongly agree

6. I do not want to have sex with a person until I am sure that we will have a long-term, serious relationship.
   
   1  2  3  4  5  6  7  8  9
   Strongly disagree  Strongly agree

7. How often do you have fantasies about having sex with someone with whom you do not have a committed relationship?
   
   1 – Never
   2 – Very seldom
   3 – About once every two or three months
   4 – About once a month
   5 – About once every two weeks
   6 – About once a week
   7 – Several times per week
   8 – Nearly every day
   9 – At least once a day

8. How often do you experience sexual arousal when you are in contact with someone
with who you do not have a committed romantic relationship?
   1 – Never
   2 – Very seldom
   3 – About once every two or three months
   4 – About once a month
   5 – About once every two weeks
   6 – About once a week
   7 – Several times per week
   8 – Nearly every day
   9 – At least once a day

9. In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?
   1 – Never
   2 – Very seldom
   3 – About once every two or three months
   4 – About once a month
   5 – About once every two weeks
   6 – About once a week
   7 – Several times per week
   8 – Nearly every day
   9 – At least once a day
Appendix G: Demographics

1. What is your gender identity?
   - Male
   - Female
   - Transgender/Transsexual
   - You don't have an option that applies to me.*
   *If you selected that we do not have an option that applies to you, please describe your gender identity in the line provided below:
   _______________________________________________________

2. What is your age?
   __________

3. What is your college major?
   ________________________________

4. What is your class standing?
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - Super Senior
   - You don't have an option that applies to me.*
   *If you selected that we do not have an option that applies to you, please describe your gender identity in the line provided below:
   _______________________________________________________
5. What is your ethnic background? Please check all that apply to you.

___ African/ African American
___ American Indian/ Alaskan Native
___ Caucasian
___ Chinese
___ Filipino
___ Hawaiian/Part Hawaiian
___ Hispanic/Latino/Mexican American
___ Japanese
___ Korean
___ Middle Easterner
___ Other Asian
___ Pacific Islander
___ Persons of the Indian Subcontinent
___ Portuguese
___ You don’t have an option that applies to me.*

*If you selected that we do not have an option that applies to you, please describe your ethnic identity in the line provided below:

_______________________________________________________

6. Of the ethnicities that you checked above, which one ethnicity do you identify the most with?

_______________________________________________________

7. What is your current relationship status?

___ Not Currently in a Relationship
___ Dating Exclusively
___ Married/Cohabitating
___ You don’t have an option that applies to me.*

*If you selected that we do not have an option that applies to you, please describe your relationship status in the line provided below:

_______________________________________________________
8. What is your sexual orientation?  
   ____ Homosexual  
   ____ Bisexual  
   ____ Heterosexual  
   ____ You don’t have an option that applies to me.*

*If you selected that we do not have an option that applies to you, please describe your sexual orientation in the line provided below:  
____________________________________

Instructions: Below are a few questions about your religious beliefs and practices. Please select the answer that is most true for you.

9. How important is religious/spiritual belief as a source of meaning in your life?  
   ____ Completely Unimportant  
   ____ Somewhat Unimportant  
   ____ Neutral  
   ____ Somewhat Important  
   ____ Completely Important

10. How often do you participate in religious/spiritual activities? (e.g. church services, religious/spiritual readings, prayer, meditation, listening to/watching religious programming on the radio/television, other religious activities)  
    ____ Never  
    ____ A couple of times a year  
    ____ A couples of times a month  
    ____ Once a week  
    ____ More than once a week

11. How much does your religious/spiritual affiliation guide decisions in your daily life?  
    ____ Not at all  
    ____ A little  
    ____ Some  
    ____ Quite a bit  
    ____ Very much
Appendix H: Study 1 Consent Form

University of Hawai‘i

Consent to Participate in Research

What's Love Got To Do With It?: Attitudes on Romantic Relationships Study

My name is Megan Carpenter, and I am a Doctoral candidate in the Department of Psychology at the University of Hawaii (UH). I am conducting a study to investigate individuals' attitudes towards romantic relationships. I am asking you to participate in this project because you are at least 18 years old and are enrolled as a student at UH Manoa.

Project Description – Activities and Time Commitment: The activities that you will participate in are as follows: First, you will be asked to do a brief writing task, which involves writing about a specific memory of a past event. After you complete this writing task, you will be asked to fill out a few short questionnaires. These questionnaires focus on the qualities that you look for in a potential romantic partner, your attitudes and desires toward casual sex, you're your own perceived “value” as a romantic partner, and your personal attributes. Overall, your participation in this study will take approximately 30 minutes.

Benefits and Risks: There are no direct benefits to you as an individual for participating in this study. The more general benefits are that results from this study might help researchers to better understand individuals' thoughts or experiences when choosing a romantic partner. A possible risk of participation in this study is that some participants may become stressed by answering some of the questions on the questionnaires. You are welcome to skip any questions that make you uncomfortable, or stop your participation altogether. If needed, counseling options are available at the Counseling and Student Development Center located at the Queen Lili‘uokalani Center for Student Services, room 312. Office hours are 8:00 am to 4:30 pm from Monday through Friday. To make an appointment, please call (808) 956-7927.

Compensation: You will receive extra credit for the psychology course of your choosing in exchange for your participation in this research study. Please note that you can only receive credit for those courses that are providing extra credit in exchange for research participation. If you have signed up for this study through the Sona system, your credit will also be recorded in the Sona system. If you signed up for this study via email, a list of participants will be emailed to your teacher at the end of the semester, informing them of your participation in this study. You can only receive credit for one course in exchange for participating in this study.

Confidentiality and Privacy: I will take steps to protect your privacy and the confidentiality of the information that you provide. I will not ask you to provide any personal information that could be used to identify you in your survey responses.
Likewise, please do not include any personal information, such as your name, in your survey responses. I will not use your name or other personally identifying information when I report the results of this study. All personal information will be kept confidential to the extent allowed by law. Only myself and my graduate advisor, Dr. Elaine Hatfield, will have access to your survey responses. Additionally, several public agencies with responsibility for research oversight, including the UH Human Studies Program, have authority to review research records. Research records will be kept in a locked file on my personal computer for the duration of the study. All personal information will be destroyed upon completion of the research project.

**Voluntary Participation:** Participation in this project is voluntary. You can freely choose to participate or to not participate in this study, and there will be no penalty or loss of benefits for either decision. If you agree to participate, you can stop at any time without any penalty or loss of benefits to which you are otherwise entitled.

**Questions:** If you have any questions about this study, you can contact me at mforbes@hawaii.edu. You can also contact my graduate advisor, Dr. Elaine Hatfield of the Department of Psychology at the University of Hawaii at Manoa, at elaineh@hawaii.edu. For questions about your rights as a research participant, contact the University of Hawaii Human Studies Program by phone at 808-956-5007 or by email at uhirb@hawaii.edu.

----------------------------------------------------------------------------------------------------------------------------------

Please print a copy of this consent form for your records.

If you agree to participate in the above mentioned research project, please check the “I agree” box below. If you do not wish to participate in the above mentioned research project at this time, please check the “No, thanks” box below. If you have any questions about participating in this study, please contact the researcher directly at mforbes@hawaii.edu.

☐ I agree

☐ No, thanks
Appendix I: Facial Arrays

Average Female Facial Array:

A B C D E

F G H I J

Average Male Facial Array:

A B C D E

F G H I J
Female 1 Low-High Femininity Array:

Female 2 Low-High Femininity Array:

Female 3 Low-High Femininity Array:

Female 4 Low-High Femininity Array:
Female 5 Low-High Femininity Array:

Female 6 Low-High Femininity Array:

Female 7 Low-High Femininity Array:

Female 8 Low-High Femininity Array:
Female 9 Low-High Femininity Array:

Female 10 Low-High Femininity Array:

Male 1 Low-High Masculinity Array:

Male 2 Low-High Masculinity Array:
Male 3 Low-High Masculinity Array:

Male 4 Low-High Masculinity Array:

Male 5 Low-High Masculinity Array:

Male 6 Low-High Masculinity Array:
Male 7 Low-High Masculinity Array:

Male 8 Low-High Masculinity Array:

Male 9 Low-High Masculinity Array:

Male 10 Low-High Masculinity Array:
Appendix J: Attraction to Sexual Aggression Scale (ASAS)

1 & 2 People frequently think about different activities even if they never do them. For each kind of activity listed, please indicate whether or not you have ever thought of trying that activity.

<table>
<thead>
<tr>
<th>Have thought of it</th>
<th>Have never thought of it</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Necking (deep kissing)</td>
<td></td>
</tr>
<tr>
<td>b. Petting</td>
<td></td>
</tr>
<tr>
<td>c. Oral sex</td>
<td></td>
</tr>
<tr>
<td>d. Heterosexual intercourse</td>
<td></td>
</tr>
<tr>
<td>e. Anal intercourse</td>
<td></td>
</tr>
<tr>
<td>f. Male homosexual acts</td>
<td></td>
</tr>
<tr>
<td>g. Group sex</td>
<td></td>
</tr>
<tr>
<td>h. Bondage (e.g., tying up self or sex partner)</td>
<td></td>
</tr>
<tr>
<td>i. Whipping, spanking</td>
<td></td>
</tr>
<tr>
<td>j. Rape</td>
<td></td>
</tr>
<tr>
<td>k. Forcing a female to do something sexual she didn’t want to do</td>
<td></td>
</tr>
<tr>
<td>l. Transvestism (wearing clothes of opposite sex)</td>
<td></td>
</tr>
<tr>
<td>m. Pedophilia (sex with a child)</td>
<td></td>
</tr>
</tbody>
</table>

3 & 4 Whether or not you have ever thought of it, do you find the idea:

<table>
<thead>
<tr>
<th>Very unattractive</th>
<th>Somewhat unattractive</th>
<th>Somewhat attractive</th>
<th>Very attractive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Same behaviors as in item 1 listed here)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5 & 6 What percentage of males do you think would find the following activities sexually arousing?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Same behaviors as in item 1 listed here)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

7 & 8 What percentage of females do you think would find the following activities sexually arousing?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Same behaviors as in item 1 listed here, except that the items referring to females both “Being forced to do something sexual they didn’t want to” and “Forcing a male to do something sexual he didn’t want to.”)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

10, 11, & 12 How sexually arousing do you think you would find the following sexual activities if you engaged in them (even if you have never engaged in them)?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Same behaviors and scales were used as in items 5 &amp; 6, with the addition of the following item: “Being forced to do something sexual you didn’t want to.”)</td>
<td></td>
<td></td>
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</table>

13 & 14 If you could be assured that no one would know and that you could in no way be punished for engaging in the following acts, how likely, if at all, would you
be to commit such acts?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Not at all likely</td>
<td></td>
<td></td>
<td></td>
<td>Very likely</td>
</tr>
</tbody>
</table>
Appendix K: Study 2 Consent Form

University of Hawai‘i

Consent to Participate in Research

The Rules of Attraction: Romantic Attraction Study

My name is Megan Carpenter, and I am a Doctoral candidate in the Department of Psychology at the University of Hawaii (UH). I am conducting a study to investigate individuals’ sexual attraction toward others. I am asking you to participate in this project because you are at least 18 years old and are enrolled as a student at UH Manoa.

Project Description – Activities and Time Commitment: The activities that you will participate in are as follows: First, you will be asked to do a brief writing task, which involves writing about a specific memory of a past event. After you complete this writing task, you will be shown a series of photos and asked to indicate which of the photos you find attractive. Finally, you will be asked to fill out a few short questionnaires. These questionnaires focus on the qualities that you look for in a potential romantic partner, your attitudes and desires toward casual sex, you’re your own perceived “value” as a romantic partner, your personal attributes, and your attraction to sexually aggressive acts (e.g., bondage, spanking, etc.). Overall, your participation in this study will take approximately 30-45 minutes.

Benefits and Risks: There are no direct benefits to you as an individual for participating in this study. The more general benefits are that results from this study might help researchers to better understand individuals’ thoughts or experiences when choosing a romantic partner. A possible risk of participation in this study is that some participants may become stressed by answering some of the questions on the questionnaires. You are welcome to skip any questions that make you uncomfortable, or stop your participation altogether. If needed, counseling options are available at the Counseling and Student Development Center located at the Queen Lili‘uokalani Center for Student Services, room 312. Office hours are 8:00 am to 4:30 pm from Monday through Friday. To make an appointment, please call (808) 956-7927.

Compensation: You will receive extra credit for the psychology course of your choosing in exchange for your participation in this research study. Please note that you can only receive credit for those courses that are providing extra credit in exchange for research participation. If you have signed up for this study through the Sona system, your credit will also be recorded in the Sona system. If you signed up for this study via email, a list of participants will be emailed to your teacher at the end of the semester, informing them of your participation in this study. You can only receive credit for one course in exchange for participating in this study.
Confidentiality and Privacy: I will take steps to protect your privacy and the confidentiality of the information that you provide. I will not ask you to provide any personal information that could be used to identify you in your survey responses. Likewise, please do not include any personal information, such as your name, in your survey responses. I will not use your name or other personally identifying information when I report the results of this study. All personal information will be kept confidential to the extent allowed by law. Only myself and my graduate advisor, Dr. Elaine Hatfield, will have access to your survey responses. Additionally, several public agencies with responsibility for research oversight, including the UH Human Studies Program, have authority to review research records. Research records will be kept in a locked file on my personal computer for the duration of the study. All personal information will be destroyed upon completion of the research project.

Voluntary Participation: Participation in this project is voluntary. You can freely choose to participate or to not participate in this study, and there will be no penalty or loss of benefits for either decision. If you agree to participate, you can stop at any time without any penalty or loss of benefits to which you are otherwise entitled.

Questions: If you have any questions about this study, you can contact me at mforbes@hawaii.edu. You can also contact my graduate advisor, Dr. Elaine Hatfield of the Department of Psychology at the University of Hawaii at Manoa, at elaineh@hawaii.edu. For questions about your rights as a research participant, contact the University of Hawaii Human Studies Program by phone at 808-956-5007 or by email at uhirb@hawaii.edu.

Please print a copy of this consent form for your records.

If you agree to participate in the above mentioned research project, please check the “I agree” box below. If you do not wish to participate in the above mentioned research project at this time, please check the “No, thanks” box below. If you have any questions about participating in this study, please contact the researcher directly at mforbes@hawaii.edu.

☐ I agree

☐ No, thanks
Appendix L: Mating Game Sexual Strategies

Promotion Tactics

Short Term Female:
- Accept a sexual offer
- Suggest spending time together alone with someone
- Flirt with someone
- Make subtle physical contact
- Make someone think about having sex with you
- Ask someone if they want to have sex with you
- Maintain good hygiene
- Make yourself look good
- Show that you’re attracted to someone
- Have sex with someone

Long-Term Female:
- Show loving devotion to someone
- Avoid sex with people other than the individual you are attracted to
- Be faithful to someone
- Fall in love with someone
- Court/date someone for a long time
- Find common interests with someone
- Maintain good hygiene
- Be sensitive to someone else’s needs
- Act like yourself
- Be understanding of someone else’s problems

Short Term Male:
- Accept a sexual offer
- Make yourself look good
- Make a good first impression
- Show that you’re attracted to someone
- Maintain good hygiene
- Shower with someone
- Make subtle physical contact
- Be talkative and outgoing
- Initiate social communication
- Go out of your way to talk to someone

Long Term Male:
- Be understanding of someone’s problems
- Be faithful to someone
- Find common interests with someone
• Show loving devotion to someone
• Fall in love with someone
• Act like yourself
• Be sensitive to someone else’s needs
• Get to know someone well
• Court/date someone for a long time
• Do special things for someone

**Derogation Tactics**

**Short Term Female:**
- Suggest other man/woman has a sexual disease
- Say the other man/woman might be bisexual
- Say that the other man/woman has poor hygiene
- Say that the other man/woman might be gay
- Say other man/woman is frigid
- Say other man/woman wouldn’t put out
- Say the other man/woman had a low level of cleanliness
- Say the other man/woman is fat and ugly
- Say the other woman had an abortion
- Say the other man/woman was just a tease

**Long-Term Female:**
- Say the other man/woman couldn’t stay loyal to just one woman/man
- Say the other man/woman was in a serious romantic relationship
- Say the other man/woman was bisexual
- Say the other man/woman was sleazy
- Say the other man/woman slept around a lot
- Say the other man/woman cheats on their romantic partners
- Say the other man/woman is loose
- Say the other man/woman might be gay
- Say the other man/woman uses people
- Suggest the other man/woman had a sexual disease

**Short Term Male:**
- Say other competitor is gay
- Say that other competitor attacks women/men
- Say other competitor is bisexual
- Suggest other man/woman has a sexual disease
- Say other man/woman is already in a serious romantic relationship
- Say other man/woman has gotten another woman pregnant/is pregnant
- Say other man/woman doesn’t maintain good hygiene
- Say other man/woman uses people
- Say other man/woman was out to use women/men
• Say other man/woman sleeps around

Long Term Male
• Say the other man/woman is in a serious relationship
• Say the other man/woman was out to use women/men
• Say the other man/woman was bisexual
• Say the other man/woman attacks women/men
• Say the other man/woman was sleazy
• Say the other man/woman just wants to get laid
• Say the other man/woman slept around a lot
• Say the other man/woman uses people
• Say the other man/woman had gotten a girl pregnant/is pregnant
• Say the other man/woman was inconsiderate
Appendix M: Generalized Sense of Power Scale

In my relationships with the other people on this island...

1. I think I would be able to get people to listen to what I say.
   1 2 3 4 5 6 7
   Disagree Disagree Disagree a little Neither agree nor disagree Agree a little Agree Strongly agree

2. I think that my wishes would not carry much weight.
   1 2 3 4 5 6 7
   Disagree Disagree Disagree a little Neither agree nor disagree Agree a little Agree Strongly agree

3. I think I could get others to do what I want.
   1 2 3 4 5 6 7
   Disagree Disagree Disagree a little Neither agree nor disagree Agree a little Agree Strongly agree

4. I think that even if I voiced them, my views would have little sway.
   1 2 3 4 5 6 7
   Disagree Disagree Disagree a little Neither agree nor disagree Agree a little Agree Strongly agree

5. I think that I would have a great deal of power.
   1 2 3 4 5 6 7
   Disagree Disagree Disagree a little Neither agree nor disagree Agree a little Agree Strongly agree

6. I think that my ideas and opinions would often be ignored.
   1 2 3 4 5 6 7
   Disagree Disagree Disagree a little Neither agree nor disagree Agree a little Agree Strongly agree

7. I think that even if I tried, I would not be able to get my way.
   1 2 3 4 5 6 7
   Disagree Disagree Disagree a little Neither agree nor disagree Agree a little Agree Strongly agree
8. I think that if I wanted to, I would get to make the decisions.

<table>
<thead>
<tr>
<th></th>
<th>Disagree strongly</th>
<th>Disagree</th>
<th>Disagree a little</th>
<th>Neither agree nor disagree</th>
<th>Agree a little</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>7</td>
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Appendix N: Study 3 Consent Form

University of Hawai‘i

Consent to Participate in Research

The Mating Game: Sexual Strategies in Skewed Mating Markets

My name is Megan Carpenter, and I am a Doctoral candidate in the Department of Psychology at the University of Hawaii (UH). I am conducting a study to investigate individuals’ sexual strategies under imagined mating conditions. I am asking you to participate in this project because you are at least 18 years old and are enrolled as a student at UH Manoa.

Project Description – Activities and Time Commitment: The activities that you will participate in are as follows: First, you will be asked to imagine a situation in which you have been trapped on a deserted island with a group of men and women. Given these imagined circumstances, you will be asked to select from a list of strategies what you would do to attract a romantic/sexual partner. Finally, you will be asked to fill out a few short questionnaires. These questionnaires focus on your personal sense of power, your attitudes and desires toward casual sex, you're your own perceived “value” as a romantic partner, your personal attributes, and your attraction to sexually aggressive acts (e.g., bondage, spanking, etc.). Overall, your participation in this study will take approximately 30-45 minutes.

Benefits and Risks: There are no direct benefits to you as an individual for participating in this study. The more general benefits are that results from this study might help researchers to better understand individuals’ thoughts when choosing a romantic/sexual partner. A possible risk of participation in this study is that some participants may become stressed by answering some of the questions on the questionnaires. You are welcome to skip any questions that make you uncomfortable, or stop your participation altogether. If needed, counseling options are available at the Counseling and Student Development Center located at the Queen Lili‘uokalani Center for Student Services, room 312. Office hours are 8:00 am to 4:30 pm from Monday through Friday. To make an appointment, please call (808) 956-7927.

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Confidentiality and Privacy: I will take steps to protect your privacy and the confidentiality of the information that you provide. I will not ask you to provide any personal information that could be used to identify you in your survey responses. Likewise, please do not include any personal information, such as your name, in your survey responses. I will not use your name or other personally identifying information when I report the results of this study. All personal information will be kept confidential to the extent allowed by law. Only myself and my graduate advisor, Dr. Elaine Hatfield, will have access to your survey responses. Additionally, several public agencies with responsibility for research oversight, including the UH Human Studies Program, have authority to review research records. Research records will be kept in a locked file on my personal computer for the duration of the study. All personal information will be destroyed upon completion of the research project.

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Questions: If you have any questions about this study, you can contact me at mforbes@hawaii.edu. You can also contact my graduate advisor, Dr. Elaine Hatfield of the Department of Psychology at the University of Hawaii at Manoa, at elaineh@hawaii.edu. For questions about your rights as a research participant, contact the University of Hawaii Human Studies Program by phone at 808-956-5007 or by email at uhirb@hawaii.edu.

Please print a copy of this consent form for your records.

If you agree to participate in the above mentioned research project, please check the “I agree” box below. If you do not wish to participate in the above mentioned research project at this time, please check the “No, thanks” box below. If you have any questions about participating in this study, please contact the researcher directly at mforbes@hawaii.edu.

☐ I agree

☐ No, thanks

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Appendix O: Mating Game Prompts

Imagine the following scenario: You are stranded on a small, uninhabited island in the middle of the Pacific Ocean with X number of men and X number of women. Over the course of several months, it becomes apparent that there is little to no chance that you will be rescued. After a few weeks, people start to adjust to living on the island, and start to pair up into romantic/sexual partners. Unfortunately, because there aren’t the same number of men and women on the island, some people will be left without a partner. Now, rather than worrying about having enough food and clean water, you’re worried about being left alone.

Short-term strategies prompt:

Below is a list of strategies that you could use when trying to attract a romantic/sexual partner. Imagine, first, that you are interested in having a short-term (i.e., XXX) relationship with someone on the island. Pick 10 strategies that you would use to attract a short-term partner.

Long-term strategies prompt:

Now imagine that you are interested in having a long-term relationship with someone on the island. Pick 10 strategies that you would use to attract a long-term partner.

Post-strategies feedback:

Failure: Unfortunately, using the strategies that you selected, you were unable to attract a romantic/sexual partner.
**Success:** Congratulations! Using the strategies that you selected, you were able to attract a romantic/sexual partner.
References


Galinsky, Gruenfeld, & Magee (2003).


relationships. *Journal of personality and social psychology, 95*(5), 1113.


