

THE EFFECTS OF OPERATIONAL SEX RATIOS ON SOCIOSEXUALITY

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DEDICATION

I dedicate this thesis to my love, Ryan Carpenter, for keeping me grounded during this long and arduous process, and to my parents, Ken and Susan, for being proud of me and giving me the strength to succeed.

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ABSTRACT

Among evolutionary theorists it is generally accepted that mating behaviors largely revolve around the availability of potential mates, as well as the amount and type of parental investment expended by either gender. It has been suggested that these factors also directly influence the expression of sociosexuality (i.e. willingness to engage in uncommitted sex) within any given population. More specifically, when one gender is in abundant supply, they must *adapt* their mating preferences to those of the gender in limited supply in order to attract a sexual partner, or otherwise run the risk of never finding a partner as a result of population constraints. While most research on this topic has sought to examine these effects in environments where the sex ratio is naturally biased, this study empirically manipulates the sex ratios of the website population in an attempt to demonstrate the theorized adaptive shifts in sociosexuality.

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CHAPTER 1. SEX RATIOS AND THE PRESSURES THEY PLACE ON MATE AVAILABILITY:
HOW AND WHY OPERATIONAL SEX RATIOS MAY AFFECT SOCIOSEXUALITY

The strategies that men and women employ in determining their sexual exploits have long been a topic of interest for both social and evolutionary psychologists. How we decide who (and how many) we want to have sex with, the types of relationships we want to have, and the amount of investment we are willing to put into our relationships has yet to be fully understood. Numerous moderating factors have been proposed to influence one's ability and desire to acquire mates. At the forefront of these suggested influences are innate gender differences that affect everything from reproductive potentials to preferred partner attributes. With these overarching gender differences in place, one might wonder how it is at all possible that the human race still exists. What researchers are beginning to realize is that, while our distinct gender differences have a large effect on our mating choices and preferences, it is our inherent ability to *adapt* that largely dictates our sexual strategies.

Potential Reproductive Rates (PRR)

Sexual strategy research is focused largely on the importance of reproductive potential. Men and women have vastly different potential reproductive rates due to the biological processes involved in reproduction. Men have the ability to reproduce at a much faster rate than women, and for a much longer period of time (Clark, 2006; Clutton-Brock & Parker, 1992; Kokko & Monaghan, 2001; Kruger & Fisher, 2008; Kruger & Schlemmer, 2009). This is because the male role in reproduction is minimal and comes in the form of ejaculate, which males are hypothetically able to produce multiple times per day from puberty until death. A perfect example of male reproductive potential is the infamous Mongolian warrior, Genghis Khan. Scientists from the Russian Academy of Sciences tested tissue samples of individuals living in the areas bordering Mongolia and concluded that Genghis Khan may have as many as 16 million male descents alive today! If this estimate is accurate, he would have needed to father hundreds, if not thousands, of children (Derenko, M., Malyarchuk, B., Wozniak, M., Denisova, G., Dambueva, I., Dorzhu, C., Gryzbowski, T., & Zakharov, I., 2007).

Women, on the other hand, have a much more involved role in reproduction. At the minimum, reproduction requires nine months of pregnancy, during which time

women are incapable of becoming pregnant again. Howell (1979), in an 11 year study following the reproductive careers of !Kung women, concluded that the maximum number of births for any woman was five. Women will typically dedicate a year to two years after giving birth to nursing, protecting, and teaching their children to survive on their own. For this reason, men's reproductive success is dependent on their access to reproductively capable mates, while women's reproductive success is limited by the time and energy involved in the conception and further nurturing of their offspring (Clark, 2006; Draper & Harpending, 1982).

Parental Investment Theory (PIT)

The difference between men and women, in terms of the minimal investment involved in copulation and child rearing, has been shown to greatly influence human mate choice. Parental Investment has been defined as any investment by the parent (male or female) in an individual offspring that increases that offspring's chance of surviving, at the cost of the parent's ability to invest in other offspring (Clutton-Brock & Parker, 1992; Draper & Harpending, 1982; Gangestad & Simpson, 1990; Trivers, 1972). These investments include the allocation of time, energy, risk, and resources (Draper & Harpending, 1982). Parental Investment Theory (PIT) emphasizes the importance of such investments and suggests that women, because of their greater parental investment and lower reproductive ceiling, will be more selective than men in terms of mate choice and will prefer men who possess nonphysical characteristics that maximize the survival or reproductive prospects of their children – such as ambition, wealth, earning potential, dependability, and fondness for children (Bailey, Kirk, Zhu, Dunne, & Martin, 2000; Buss & Barnes, 1986; Feingold, 1992). Men on the other hand, tend to prefer women who display physical cues of reproductive ability (i.e. are younger and physically attractive) indicating that they are within their reproductive window (between puberty and menopause) and do not have any physical infirmities that would prevent them from reproducing (Buss & Barnes, 1986; Feingold, 1992; Kruger, Fitzgerald, & Peterson, 2010; Kurzban & Weeden, 2005).

Sexual Strategies Theory (SST)

Sexual Strategies Theory (SST) provides a comprehensive framework of conditional hypotheses that factor in both preferred mating strategies and preferred

mate characteristics. Buss and Schmitt (1993) have formulated a total of 22 predictions based on SST that illustrate these conditional hypotheses. In short, these predictions indicate that men prefer to have a larger number of partners, to engage in sexual intercourse after a shorter period of time, and to have sex with more physically attractive, younger partners than women typically do. On the other hand, women tend to prefer partners who have the ability to procure resources, that are slightly older, and that indicate a greater desire for long-term investment than their male counterparts typically do (Buss & Barnes, 1986; Feingold, 1992; Gangestad, Haselton, & Buss, 2006; Kruger, Fitzgerald, & Peterson, 2010; Kurzban & Weeden, 2005; Wilson & Campbell, 2010). Of particular importance is the premise that men, whenever possible, will generally prefer short-term mating to long-term mating, while women will generally prefer long-term mating to short-term mating (which is congruent with hypotheses presented by both PRR and PIT). With men and women possessing opposing motivations for sexual relationships, it begs the question: How do men and women make reproductive compromises?

Conditional Mating Strategy

While men and women tend to possess conflicting preferences in mating strategies (short-term versus long-term, respectively), they *will* make concessions. In conditions where men are unable to acquire short-term mates, either because of the lack of potential mates or their own relatively low mate value (which is an indication of how well an individual can contribute to the reproductive success of an opposite sex partner in comparison to how well other members of the population can contribute to it), they will shift to a long-term mating strategy in order to appear more attractive to women through the additional investment of time and resources (Bailey, Kirk, Zhu, Dunne, & Martin, 2000). By doing so they will potentially improve their reproductive capabilities (which were previously limited) by continuously mating with a single female and co-rearing their resulting children. Interestingly, some researchers believe that there is a point (between 35 and 74 years of age) at which men will switch to a long-term mating strategy, regardless of population or mate value restraints (Kruger & Schlemmer, 2009). This transition in mating strategy may suggest that as men age their

mate value is lowered, ultimately affecting their ability to procure short term sexual partners.

Conversely, in situations where women are unable to acquire a long-term mate, again either because of the lack of potential mates or their own relatively low mate value, they will adapt by shifting to a short-term mating strategy in order to appear more attractive and available to men (Bailey, Kirk, Zhu, Dunne, & Martin, 2000). While this may seem counter intuitive as it leaves women to raise any resulting children on their own without any additional resources or assistance, it has been hypothesized that women who engage in short-term mating actually seek out more physically attractive men and therefore make a “trade-off” between resources and good genes. These good genes would then potentially be passed on to any resulting offspring (Jackson & Kirkpatrick, 2007; Owens & Thompson, 1994; Simpson, Wilson & Winterheld, 2004; Wilson & Campbell, 2010). This supposedly evolved tendency to prefer men with phenotypic indicators of genetic quality in lieu of paternal investment is what is known as the “Sexy-Son Hypothesis” (Gangestad & Simpson, 1990; Kruger & Fisher, 2008).

Operational Sex Ratio (OSR)

While both reproductive potential and parental investment play a large role in determining human mating strategies, the Operational Sex Ratio (OSR; ratio of sexually receptive men to sexually receptive women) has the ability to greatly skew the overall mating strategy of any given population (Clutton-Brock & Parker, 1992; Kokko & Monaghan, 2001; Kruger, Fitzgerald, & Peterson, 2010; Kruger & Schlemmer, 2009). It does so by creating an imbalance in the number of available potential sexual partners-making one sex the *limited* sex, and the other the *abundant* sex. As a result, certain members of the abundant sex may be left without *any* potential mates (in sort of a reproductive musical chairs), making it literally impossible for them to pass on their genes to future generations. This is by no means a first come, first serve scenario, however, as there are distinct differences between female-biased populations and male-biased populations in terms of what sexual strategies and personal characteristics are emphasized and valued (Buss & Barnes, 1996). In short, those individuals that adhere to the needs and wants of the *limited* sex will have a greater likelihood of procuring a mate than those who do not.

In female-biased populations (populations in which there are significantly more women than men), there is typically an increase in single parenthood, births out of wedlock, teenage pregnancies, divorce rates, and violent crimes (Brainerd, 2007). Intuitively, young men between the ages of 20-29 have low rates of marriage in female-biased populations, most likely due to the fact that marriage is not a prerequisite in these societies for sexual encounters (Edlund, 1999; Kruger & Schlemmer, 2009). In instances of severe shortages of marriageable men, it has been demonstrated that women often tend to initiate extramarital sexual relationships (Gangestad & Haselton, 2006). Whether this is to obtain better genes for any resulting offspring, to confuse paternal certainty in the hopes of gaining additional resources, or to simply acquire a better mate is not entirely clear. Additionally, sexual behavior is also more widely accepted and promoted in these societies, which is in line with the reported male desire for multiple short-term sexual relationships. This increase in sexual receptivity has been illustrated by both trends in skirt lengths, and teenage pregnancy (Kruger & Schlemmer, 2009).

Male-biased populations (in which there are significantly more males than females), on the other hand, provide a very different story. When females are in limited supply, long-term commitment becomes the standard. This is illustrated by the fact that large proportions of women in these societies get married at a relatively young age, and delay sexual intercourse until after marriage (Angrist, 2002; Barber, 2008; Edlund, 1999; Guilmoto, 2007). When women are scarce in a population, they are allowed greater bargaining power in their romantic relationships and are thus able to procure male commitment at an earlier age. More intense male competition is also introduced into populations that are male-biased. This competition does not necessarily consist of hand-to-hand combat, but of “one-upping” other male competitors in terms of mate value (which in this context is defined by status and earning potential). Therefore, men with high earning potentials, relative to other men, will be the most likely in these societies to obtain a mate (Clutton-Brock, 1992). The economic influences of male-biased populations have been demonstrated in numerous cultural settings. A comparison of Macon (female-biased) and Columbus (male-biased), two cities in the state of Georgia, found that in Columbus, men were much more willing to incur debt for

immediate expenditures and to spend more money during courtship than men in Macon typically were (Griskevicius, Tybur, Ackerman, Delton, Robertson, & White, in press). Furthermore in China, which is soon expected to have a surplus of over 40 million men, property ownership has become the greatest indicator of wealth and therefore potential for mate acquisition. An article reported by the New York Times, titled "For Many Chinese Men, No Deed Means No Dates," illustrates this ongoing struggle for Chinese men (Jacobs, 2011). Interestingly, it has been suggested that as societies approach gender equality in terms of earned wages and status, females with higher earning potentials may become more interested in the physical attractiveness of males in comparison to females with relatively low earning potentials. That is to say as females gain the ability to procure resources for themselves, attractiveness of potential male partners may become *more* important to their mate choice, while the earning ability of their potential mate may simply *maintain* its importance (Gangestad & Haselton, 2006). This may suggest that the ability to procure resources for oneself may play a bigger role in mate preferences than previously thought.

Possible moderating factors of OSR include: adult sex ratios, differences between the sexes at the age of maturity, reproductive longevity, spatial distribution, morbidity, and mortality (Klutton-Brock & Parker, 1992; Kvarnemo & Ahnesjo, 1996). These first three moderators highlight the fact that the OSR only incorporates members of a population that are capable of reproduction. Thus, younger individuals who have not yet hit puberty, and older individuals who have generally diminished physical abilities that make sexual intercourse almost or entirely impossible, are left out of the equation. On this note, Viagra may have some interesting implications as to who is incorporated in the present day OSR and the effects that can be seen as a result. Spatial distribution of the members of a given population is important in the consideration of operational sex ratios because it affects the availability of potential mates. If you are unaware that a reproductively capable and sexually available person exists just over the next hill, then they are not available to you, even though they may be considered part of your population. And finally, morbidity and mortality hugely affect the OSR of any given population, especially for the human species, which has a male population that tends to

have a shorter lifespan than its female population. This could possibly mean that older men may have an advantage, as there are fewer older men than there are older women.

Sociosexuality

A growing body of research has suggested that imbalanced sex ratios directly affect the mean level of sociosexuality expressed within a given population (Barber, 2008; Lippa, 2007; Owens & Thompson). Sociosexuality, a term that was first introduced by Alfred Kinsey, is defined as a person's overall willingness to engage in uncommitted sexual relationships (Bailey et al, 2000; Barber, 2008; Clark, 2006; Jackson & Kirkpatrick, 2007; Lippa, 2007; Penke & Asendorpf, 2008); individuals are either restricted or unrestricted in terms of their sociosexual orientation. Restricted individuals are those that require a greater investment of time, attachment, and resources before engaging in any kind of sexual relationship (Penke & Asendorpf, 2008; Gangestad & Simpson, 1990; Jones, 1998; Ostovich & Sabini, 2004; Wilson & Campbell, 2010; Yost & Zurbriggen, 2006). In populations with balanced gender ratios, women are more likely than men to demonstrate a restricted sociosexual orientation, evidently because it is more adaptive for women to ensure a man's commitment and investment in their prospective offspring *before* those offspring are conceived (Buss & Schmitt, 1993). However, both men and women are reported to practice restricted sociosexuality in countries where the risks of engaging in casual sex are high, either from venereal diseases, unwanted pregnancies, or diminished prospects. Thus, restricted sociosexuality will be more valued by women in gender-balanced populations, and by both men and women when it is either too dangerous or strategically unfeasible (due to male-biased OSR) to engage in uncommitted sexual relationships (Wilson & Campbell, 2010; Barber, 2008).

Unrestricted individuals, in contrast, are those that require relatively little in terms of time, attachment, and commitment before engaging in a sexual relationship. As a result, these individuals typically have a greater number of lifetime sexual partners than restricted individuals (Gangestad & Simpson, 1990; Jones, 1998; Ostovich & Sabini, 2004; Penke & Asendorpf, 2008; Wilson & Campbell, 2010; Yost & Zurbriggen, 2006). In a balanced OSR population, men will be more likely than women to be unrestricted (Buss & Schmitt, 1993). This simply reiterates the point that men prefer to have

multiple sexual encounters in order to increase their chances of reproduction, and as such do not require much investment from their partners prior to copulation because that would simply delay their goal attainment. A perfect illustration of the male proclivity towards casual sex is the study conducted by Clark and Hatfield (1989), which concluded that men were far more likely than women to accept an offer of casual sex from an opposite-sex stranger.

There are men and women, however, who even in gender balanced OSR environments will develop a restricted and unrestricted sociosexuality, respectively. Evolutionary psychologists have theorized that when men develop a restricted Sociosexuality in the absence of any mate availability restraints, it is because they have been largely unsuccessful in their practice of the preferred short-term mating strategy, and are thus forced to shift to a restricted sociosexuality (which increases their mate value with the added investment of time and resources) or be doomed to celibacy (Kruger & Schlemmer, 2009). Women that develop an unrestricted sociosexuality, on the other hand, do not *necessarily* do so because they are incapable of finding a man who will commit to them. Several theories have been postulated as to why women may develop an unrestricted sociosexuality. Among them are Paternal Certainty Hypothesis, which postulates that women may have sex with multiple men in order to confuse the paternity of any resulting offspring, ultimately allowing them to procure resources from multiple men; Sexy Son Hypothesis, which proposes that women may choose to have casual sex with physically attractive men in order to obtain good genes for their resulting offspring (Gangestad & Simpson, 1990; Wilson & Campbell, 2010); and Mate-Switching Hypothesis, which stipulates that women may engage in casual sex in an attempt to acquire a better mate than their current one. Additional hypotheses to this effect, which are somewhat less present in the literature include the Mate Skill Acquisition Hypothesis, which suggests that women may engage in casual sex with males in an attempt to utilize their various skills; and the Mate Manipulation Hypothesis, which puts forward the idea that women may engage in casual sex with other men in an attempt to seek revenge against their current mate (Symons, 1979).

The revised Sociosexual Orientation Inventory (SOI-R)

The current study utilizes an existing measure of sociosexuality: The Sociosexual Orientation Inventory (SOI). However, due to the fact that the original SOI includes a question that requires the respondent to currently be in a relationship, the present study uses the revised Sociosexual Orientation Inventory (SOI-R), which is better suited for the “single” relationship status of the participants (Penke & Asendorpf, 2008). The SOI-R consists of nine questions that investigate previous sexual experience, opinions regarding casual sex, and frequency of sexual fantasies (see Appendix A for complete SOI-R). Higher SOI-R scores indicate that the individual is typically more willing to engage in short-term, casual sexual relationships, whereas lower SOI-R scores indicate less of a willingness to engage in casual sex, and suggest a greater preference for committed sexual relationships (Penke & Asendorpf, 2008; Clark, 2008).

The Present Investigation

The present study seeks to investigate the effects of Operational Sex Ratios on sociosexuality and sexual strategies. To test this, iWeb, a web design program available on MacBook Pro computers, was used to create an artificial online dating website in which three sex ratio conditions were created: one male-biased condition, one gender-balanced condition, and one female-biased condition. By creating these population controlled, virtual environments, several research questions were addressed. First and foremost is the question of whether sociosexuality *can* be manipulated. While current research suggests that people develop their sociosexuality depending on what behaviors are most adaptive to their surrounding environment, researchers have yet to investigate the extent to which sociosexuality is stable once it is developed, or if it can change or be manipulated. Next is the question of whether peoples’ portrayals of personal attributes and preferred partner attributes will change in accordance with the availability of potential sexual partners. More specifically, will people rate themselves higher on personal attributes as a way of making themselves appear more appealing when the chances of finding a potential partner are constrained, and furthermore will their ratings of preferred partner attributes be higher if their chances of finding a potential partner are favorable? This study also seeks to investigate how sex ratios may affect the expression of preferred relationship type (i.e. long-term vs. short-term). In

addition to studying the impact of sex ratios, number of photos used in the experimental website design, as well as gender of participant will also be explored as possible factors influencing the above mentioned variables; thus creating a 2 (gender) x 3 (sex ratio condition) x 2 (number of photos) factorial design.

Hypotheses

1. Participants' sociosexuality scores will differ depending on which sex ratio condition they are randomly placed in. Specifically, sociosexuality scores are expected to be higher on average in female-biased conditions (in which there are significantly more women than men) than they are in either the gender-balanced, and male-biased conditions. Furthermore, sociosexuality scores are expected to be lower on average in male-biased conditions (in which there are significantly more men than women) than they are in either the gender-balanced or the female-biased conditions.
2. Participants' sociosexuality will differ depending on the gender of the participant. In particular, men are expected to have higher sociosexuality scores than do women, indicating that men are more inclined to engage in casual sex.
3. Participants' ratings of personal attributes will differ depending on both their gender and which sex ratio condition they are randomly placed in. Specifically, men in the male-biased condition are expected to rate themselves higher on personal attributes than women in this condition and the men in any other condition. Women in the female-biased condition are expected to rate themselves higher on personal attributes than men in this condition and then women in any other condition.
4. Participants' ratings of preferred partner attributes will differ depending on both their gender and which sex ratio condition they are randomly placed in. More specifically, women in the male-biased condition will rate preferred partner attributes higher than men in this condition and than women in any other condition. Men in the female-biased condition will rate preferred partner attributes higher than women in this condition and than men in any other condition.

5. Participants' relationship type preferences (i.e. short-term versus long-term) will differ depending on which sex ratio condition they are randomly placed in. Particularly, participants in the male-biased condition are expected to indicate a preference for long-term relationships, whereas participants in the female-biased conditions are expected to indicate a preference for short-term relationships.
6. There will be no significant difference in any variables as a result of number of photos used in the website.

CHAPTER 2- VIRTUAL MANIPULATIONS OF SEX RATIOS

The present study is designed to address the major questions presented in this paper, specifically (1) whether or not Sociosexuality can be manipulated; (2) how biased sex ratios, number of photos used in the website design, and gender may affect participants' willingness to engage in uncommitted sex, as well as (3) the attributes that participants portray about themselves and (4) the attributes they would like a potential sexual partner to possess. In order to accurately address these issues, an artificial online dating website was created using iWeb, a web design program available on MacBook Pro computers (See Appendix B). Using this program, three experimental conditions were created: a male-biased OSR condition (7:3 ratio), a gender-balanced condition (5:5 ratio), and a female-biased condition (3:7 ratio). Two websites were created for each of these three conditions, one with ten photos of supposed new members, and one with 20 photos –resulting in six total website conditions. This additional factor was included as a way of ensuring that any resulting shifts in sociosexuality are indeed caused by the sex ratio being presented, and not the number of photos of the supposed website members. Participants were randomly assigned to one of these six websites.

Participants

Students enrolled in psychology, sociology, communications, and women's studies undergraduate courses at the University of Hawaii at Manoa were recruited to participate in this study. Participants were offered class extra credit in return for their participation. To preserve participant anonymity, usernames created for the website, as well as any additional identifying information that may have been included in the profile information, were immediately discarded once participants left the lab. Participation occurred at the end of the fall semester of 2011 and the beginning of the spring semester of 2012. A total of 259 individuals participated in the study. Thirty-four of those individuals were either in a relationship at the time of participation or had sexual orientations other than heterosexual; these individuals were not included in the analyses. Seven additional cases were excluded from the analyses as a result of technical glitches, causing the data to not be recorded. Of the remaining 218

participants, 41% were male ($n = 88$) and 59% were female ($n = 127$); three individuals did not indicate their gender.

The mean age of participants was 21.27 ($SD = 3.70$, range 18-46); three participants did not report their age. Participant self-reported ethnicity was as follows: 24% Caucasian ($n = 53$), 17% Japanese ($n = 38$), 13% Chinese ($n = 28$), 10% Filipino ($n = 22$), 7% Korean ($n = 15$), 6% Hawaiian or Part-Hawaiian ($n = 13$), 6% Hispanic ($n = 13$), 4% Other ($n = 9$), 3% Other Asian ($n = 7$), 3% Pacific Islander ($n = 6$), 3% African American ($n = 6$), 1% Middle Eastern ($n = 3$), 1% Portuguese ($n = 2$), 1% American Indian or Alaska Native ($n = 1$), and 1% Other, not specified ($n = 2$).

During recruitment, participants were told that their help was needed in “piloting” (see Appendix D for the study advertisement) a Honolulu-based online dating network called OtherFishInTheScene.com, and that this pilot would involve creating a new member profile and giving feedback to the researchers on their overall evaluation of the site. They were also told that upon completion of their profile they would be given the opportunity to become a fully-fledged member of the site, meaning that they would keep the profile that they created in the lab and it would become public when the site launched in a matter of weeks. Because this study was examining the nature of mate choice, only “single” participants were recruited in order to make sure that the participants’ current relationship status did not affect their responses.

Procedure

Students interested in piloting OtherFishInTheScene.com contacted the researcher directly via email, after which they were provided with the URL to an online scheduling website and asked to select a 30-minute timeslot during which they would like to participate. Once this timeslot was selected, they received a confirmation email from the researcher and were given directions to George Hall Room 106C, which houses the Social Psychology “Hatfield” Lab. Participants were only told the location of the study after scheduling a timeslot in order to cut down on the number of students that showed up to the lab without an appointment.

Upon entry to the Social Psychology Lab, participants were greeted by either the researcher or a research assistant (only one was in the lab at any given time), and were given a consent form (see Appendix E), which provided a brief description of the study,

and explained that they were not obligated in any way to take part in the study and could leave at any time while still receiving their extra credit point(s). It is important to note that the description of the study in the consent form (and in the recruitment advertisement) was deceptive. Participants were led to believe that they were helping to test a new locally based online dating website, which was attempting to predict good matches for people based on their personal attributes and preferences. Participants were asked to answer the questions as if they were creating a profile for themselves (see Appendix F for script). Once the signed consent forms were returned to either the researcher or the research assistant, the participant was seated in front of the computer housing the beta version of OtherFishInTheScene.com. At that point they were also provided with a Feedback Form (see Appendix G) which they were instructed to read through and complete as they navigated the website. One of the six possible artificial websites (male-biased- 10 photos, male-biased-20 photos; gender-balanced-10 photos, gender-balanced-20 photos; or female-biased-10 photos, female-biased 20 photos) had been pulled up on the computer screen prior to the participant's entry into the lab. The order of these websites was randomly generated, therefore participants' placement in any of these six conditions was totally random (see Table 2.1 for number of participants per cell).

Table 2.1
Gender by Website Condition

Website Condition	Number of Individuals in Each Condition	
	Male	Female
Male-biased (10 photos)	14	23
Male-biased (20 photos)	10	27
Gender-balanced (10 photos)	17	20
Gender-balanced (20 photos)	16	17
Female-biased (10 photos)	14	20
Female-biased (20 photos)	17	20

The artificial website design contained several sex ratio primes, through both explicitly stated site statistics as well as a slideshow of "new member photos" which

was representative of the presented sex ratio (see Appendix B for screenshots of OtherFishInTheScene.com). The Welcome Page of the website included a message which clearly stated the percentage of male and female website members. This percentage differed depending on the sex ratio condition: male-biased claimed to have 28% women and 72% men, gender-balanced claimed to have 48% women and 52% men, and female-biased claimed to have 72% women and 28% men. The About Our Site Page, which appeared directly after the Welcome Page, reiterated the website sex ratio through more concrete site statistics: male-biased claimed to have 33 women and 84 men, gender-balanced claimed to have 56 women and 61 men, and female-biased claimed to have 84 women and 33 men. This page also contained the slideshow of “new members.” As mentioned previously, for each sex ratio condition there were two websites: one with a slideshow containing ten photos of new members, and one with twenty photos. These slideshows were representative of the reported sex ratio, meaning that if you were placed in the male-biased condition you would either see a slide show with seven men and three women, or of fourteen men and six women (depending on which photo condition you were in). The photos for this slideshow were taken from HotOrNot.com with expressed permission from their VP of Marketing. Over 100 photos from HotOrNot.com were selected and rated for attractiveness on a scale of 1-10 by a panel of seven judges. Photos with an average attractiveness of between 6.5 and 7.5 were eligible for inclusion in the slideshows. These remaining photos were then randomly selected for each of the six slideshows, creating six unique groupings of photos.

Once participants fully explored the Welcome and About Our Site pages (which they were instructed to do by the Feedback Form), participants began creating their profiles. This profile creation process included completing the SOI-R; two series of 10, seven-point Likert-scale questions on personal attributes and preferred partner attributes; questions regarding desire to get married, desire to have children, flirting style, and preferred relationship type; demographic questions; and two free-response questions which asked participants to write about themselves and what they were looking for in a potential partner. Once participants completed this series of questionnaires, they were directed to a Log Out Page, which instructed them to see the

research assistant for further directions. The research assistant then verbally debriefed (see Appendix F for the script) the participant about the true nature and purpose of the experiment, and also provided the participant with a printed copy of the formal debriefing form (see Appendix H).

After participants left the room, either the researcher or the research assistant printed their responses to the various questions and reset the website. Due to the fact that this site remained on a local computer and was not published online or connected to a server, printing the information was the most efficient method of data retrieval.

Measures

As mentioned in the procedure, the present study includes the SOI-R (see Appendix A); two series of 10, seven-point Likert-scale questions on personal attributes and preferred partner attributes; questions regarding desire to get married, desire to have children, flirting style, and preferred relationship type; demographic questions; and two free-response questions which asked participants to write about themselves and what they were looking for in a potential partner. (See Appendix B for the screenshots of OtherFishInTheScene.com)

Statistical Analyses

A MANOVA was performed to test the effects of sex ratio condition, number of photos, and gender on the three individual facets that comprise the revised Sociosexual Orientation Inventory: behavior, attitude, and desire; averaged personal attribute scores; and averaged preferred partner attribute scores. A further MANOVA was carried out to test the differences in individual attributes by the same three factors. Multiple chi-square tests for independence were conducted for participants' responses to questions about desire to get married, desire to have children, flirting style, and preferred relationship type in order to determine if there was a significant difference in responses by sex ratio condition, number of photos, or gender. Additionally, a one-way ANOVA was performed to test the effect of ethnicity (recoded into Caucasian, Asian, and Islander) on sociosexuality.

Results

The SOI-R is composed of three separate facets: behavior, attitude, and desire, which when aggregated create a global sociosexual orientation score. It is important to

investigate each of these facets individually because they each represent very different aspects of willingness to engage in casual sex.

Behavior Facet

The behavior facet encompasses the first three items of the SOI-R: “With how many different partners have you had sex within the past 12 months?”, “With how many different partners have you had sexual intercourse on *one and only one* occasion?”, and “With how many different partners have you had sexual intercourse without having an interest in a long-term committed relationship with this person?”. Because these items are geared toward past sexual behaviors, no significant effects of sex ratio or number of photos were anticipated. These suspicions were confirmed by a MANOVA that failed to detect significant effects of sex ratio condition, number of photos, and gender on the mean behavior facet score. The null effect of gender on the behavior facet is a surprising finding, as it suggests that the men and women in the sample did not differ significantly in terms of previous casual sexual experiences. (See Table 2.2 for mean scores and standard deviations for the behavior facet)

Table 2.2
Means for Sociosexual Orientation Inventory (Behavior Facet) by Gender

Condition	10 Photos		20 Photos	
	Male	Female	Male	Female
More Men	2.71 (<i>SD</i> = 1.69)	2.35 (<i>SD</i> = 1.20)	1.93 (<i>SD</i> = 0.99)	2.52 (<i>SD</i> = 1.66)
Equal	2.47 (<i>SD</i> = 1.42)	2.18 (<i>SD</i> = 1.58)	2.71 (<i>SD</i> = 1.61)	1.75 (<i>SD</i> = 0.76)
Fewer Men	2.10 (<i>SD</i> = 1.18)	1.70 (<i>SD</i> = 0.78)	2.57 (<i>SD</i> = 1.30)	2.00 (<i>SD</i> = 1.42)

Attitude Facet

The attitude facet includes items four through six of the SOI-R: “Sex without love is OK.”, “I can imagine myself being comfortable and enjoying ‘casual’ sex with different partners”, “I do *not* want to have sex with a person until I am sure that we will have a long-term, serious relationship.”. Item six was reverse coded before these items were aggregated to create the attitude facet. A MANOVA was performed to test the possible effects of sex ratio condition, number of photos, and gender. Neither sex ratio condition

nor number of photos produced a significant effect on the attitude facet. However, there was a main effect of gender, $F(1,197) = 13.70, p < 0.001, d = 0.59$, suggesting that men and women do differ significantly in their attitudes toward casual sex whereas men tended to have more favorable attitudes toward casual sex than women did. There were no significant interactions. (See Table 2.3 for the mean scores and standard deviations for the attitude facet)

Table 2.3
Means for Sociosexual Orientation Inventory (Attitude Facet) by Gender

Condition	10 Photos		20 Photos	
	Male	Female	Male	Female
More Men	4.71 ($SD = 1.05$)	4.17 ($SD = 1.50$)	4.97 ($SD = 1.04$)	4.28 ($SD = 1.20$)
Equal	5.18 ($SD = 1.18$)	4.25 ($SD = 1.37$)	5.21 ($SD = 1.20$)	4.04 ($SD = 0.75$)
Fewer Men	4.38 ($SD = 1.16$)	4.07 ($SD = 0.97$)	5.37 ($SD = 1.02$)	4.45 ($SD = 1.19$)

Desire Facet

Items seven through nine of the SOI-R make up the desire facet: “How often do you have fantasies about having sex with someone you are *not* in a committed romantic relationship with?”, “How often do you experience sexual arousal when you are in contact with someone you are *not* in a committed romantic relationship with?”, “ and “In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?”. A MANOVA was performed to test the possible effects of sex ratio condition, number of photos, and gender. Once again, neither sex ratio condition nor number of photos produced significant effects. Gender did demonstrate a significant main effect, $F(1, 197) = 43.43, p < 0.001, d = 1.00$, suggesting that the men and women do differ significantly in their desire to engage in casual sex whereas men tended to have a greater desire for casual sex than women did. There were no significant interactions. (See Table 2.4 for the mean scores and standard deviations of the desire facet)

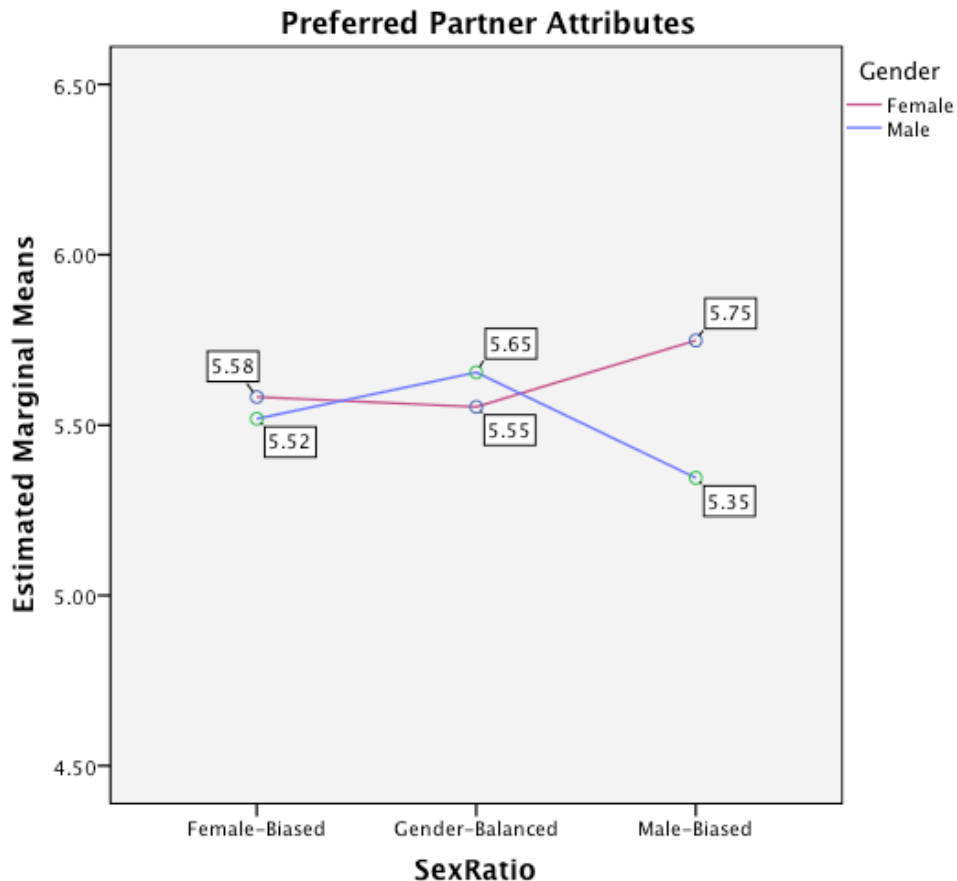
Table 2.4
Means for Sociosexual Orientation Inventory (Desire Facet) by Gender

Condition	10 Photos		20 Photos	
	Male	Female	Male	Female
More Men	5.29 (<i>SD</i> = 2.32)	3.14 (<i>SD</i> = 1.72)	4.00 (<i>SD</i> = 1.73)	3.37 (<i>SD</i> = 1.96)
Equal	5.55 (<i>SD</i> = 2.14)	3.25 (<i>SD</i> = 1.94)	5.73 (<i>SD</i> = 2.32)	3.20 (<i>SD</i> = 1.91)
Fewer Men	4.97(<i>SD</i> = 2.23)	2.65 (<i>SD</i> = 1.40)	5.20 (<i>SD</i> = 1.67)	3.30 (<i>SD</i> = 1.94)

Personal and Partner Attributes

Ten, seven-point Likert-scale items were used to investigate ratings of personal attributes and preferred partner attributes (20 items in total). The ratings for each set of 10 attributes were averaged, creating a average personal attribute score and a average preferred partner attribute score. A MANOVA was performed to test the effects of sex ratio, number of photos, and gender on ratings of personal attributes and preferred partner attributes. The analysis of averaged personal attributes failed to detect main effects of sex ratio, number of photos, or gender for ratings of personal attributes. There were also no interactions between these factors for personal attributes. The analysis of averaged preferred partner attributes, which also did not result in any main effects, did result in a significant interaction between sex ratio and gender ($F(2, 197) = 4.35, p = 0.01$; See Figure 2.1).

Figure 2.1- Interaction of Sex Ratio and Gender on Preferred Partner Attributes



Further investigation of the ratings for individual preferred partner attributes showed significant main effects of gender for “Hard-working” ($F(1,207) = 19.07, p < 0.001, d = 0.61$), “Ambitious” ($F(1,207) = 5.56, p = 0.02, d = 0.35$), “Reliable” ($F(1,207) = 5.88, p = 0.02, d = 0.35$), and “Sexy” ($F(1,207) = 7.32, p < 0.01, d = 0.40$), such that women reported that the attributes hard-working, ambitious, and reliable were more important to have in a potential partner than men did, while men reported that sexy was a more important attribute to have in a partner than women did. A significant main effect of sex ratio was found for “Liberal” ($F(1,207) = 4.16, p = 0.02$), though a Bonferroni post hoc test did not show significant difference between any of the three sex ratio conditions for this attribute. Additionally, a significant interaction between sex ratio and gender was also found for “Liberal” ($F(2, 207) = 3.43, p = 0.03$; see Figure 2.2 for graph of interaction), which suggests that when placed in a male-biased condition,

men may consider it less important for their partner to be liberal. Furthermore, significant main effects of number of photos were found for “Intelligent” ($F(1,207) = 4.63, p = 0.03, d = 0.33$) and “Reliable” ($F(1,207) = 2.82, p = 0.01, d = 0.31$). These attributes were both rated as less important when more photos of supposed new members were presented, as apposed to when fewer photos were presented. (See Tables 2.6-2.9 for the means and standard deviations of participant responses to personal and preferred partner attributes.)

Figure 2.2- Interaction of Sex Ratio and Gender for Partner Attribute “Liberal”

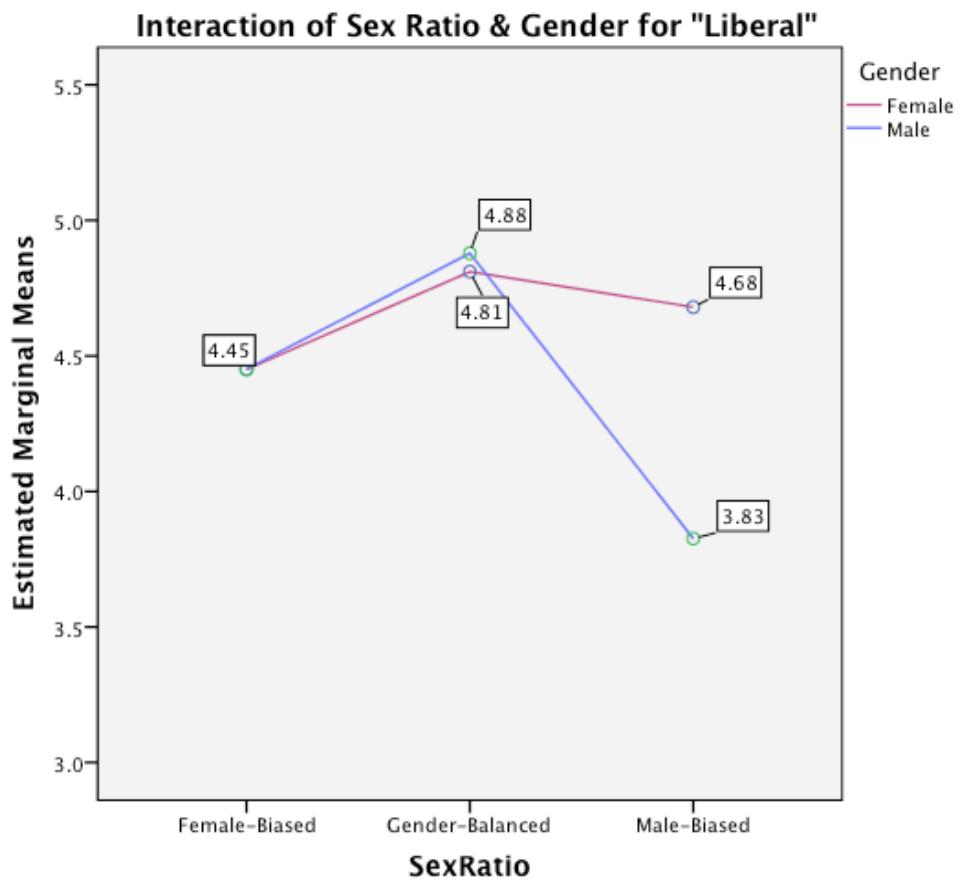


Table 2.5
Means for *Personal Attributes* by Gender and Sex Ratio Condition (For 10 Photo Condition)

Personal Attribute	More Men		Equal		Fewer Men	
	Male	Female	Male	Female	Male	Female
Intelligent	5.62 (<i>SD</i> = 0.77)	5.65 (<i>SD</i> = 1.07)	6.00 (<i>SD</i> = 0.54)	5.65 (<i>SD</i> = 0.88)	5.71 (<i>SD</i> = 0.83)	5.50 (<i>SD</i> = 0.69)
Conservative	4.77 (<i>SD</i> = 1.69)	4.57 (<i>SD</i> = 1.47)	4.13 (<i>SD</i> = 1.25)	5.00 (<i>SD</i> = 1.56)	4.57 (<i>SD</i> = 1.28)	4.70 (<i>SD</i> = 1.49)
Hard-working	6.08 (<i>SD</i> = 0.95)	5.87 (<i>SD</i> = 0.97)	6.07 (<i>SD</i> = 1.10)	6.00 (<i>SD</i> = 0.86)	6.14 (<i>SD</i> = 0.86)	5.60 (<i>SD</i> = 1.27)
Ambitious	6.23 (<i>SD</i> = 0.73)	5.91 (<i>SD</i> = 0.85)	6.20 (<i>SD</i> = 0.94)	5.75 (<i>SD</i> = 1.07)	5.50 (<i>SD</i> = 1.29)	5.40 (<i>SD</i> = 1.27)
Sexy	4.92 (<i>SD</i> = 1.55)	4.91 (<i>SD</i> = 1.47)	4.60 (<i>SD</i> = 1.50)	4.35 (<i>SD</i> = 1.18)	4.14 (<i>SD</i> = 0.86)	4.00 (<i>SD</i> = 1.21)
Adventurous	5.77 (<i>SD</i> = 1.24)	5.78 (<i>SD</i> = 1.20)	5.60 (<i>SD</i> = 1.06)	5.60 (<i>SD</i> = 1.31)	5.64 (<i>SD</i> = 1.45)	5.20 (<i>SD</i> = 1.20)
Reliable	6.23 (<i>SD</i> = 0.73)	6.35 (<i>SD</i> = 0.58)	6.07 (<i>SD</i> = 0.96)	6.25 (<i>SD</i> = 0.72)	6.36 (<i>SD</i> = 0.63)	6.05 (<i>SD</i> = 1.05)
Liberal	4.92 (<i>SD</i> = 1.19)	5.35 (<i>SD</i> = 1.15)	5.47 (<i>SD</i> = 1.06)	4.90 (<i>SD</i> = 1.33)	4.57 (<i>SD</i> = 1.40)	4.45 (<i>SD</i> = 1.43)
Assertive	5.23 (<i>SD</i> = 1.36)	4.96 (<i>SD</i> = 1.43)	5.07 (<i>SD</i> = 1.10)	4.75 (<i>SD</i> = 1.41)	4.57 (<i>SD</i> = 1.34)	4.65 (<i>SD</i> = 1.60)
Fun-loving	6.31 (<i>SD</i> = 0.86)	6.26 (<i>SD</i> = 0.75)	6.00 (<i>SD</i> = 1.25)	6.20 (<i>SD</i> = 0.95)	6.14 (<i>SD</i> = 1.03)	5.85 (<i>SD</i> = 1.04)

Table 2.6
Means for *Personal Attributes* by Gender and Sex Ratio Condition (For 20 Photo Condition)

Personal Attribute	More Men		Equal		Fewer Men	
	Male	Female	Male	Female	Male	Female
Intelligent	5.60 (<i>SD</i> = 0.70)	5.76 (<i>SD</i> = 0.93)	5.50 (<i>SD</i> = 0.82)	5.27 (<i>SD</i> = 0.96)	5.65 (<i>SD</i> = 0.93)	5.84 (<i>SD</i> = 0.77)
Conservative	4.70 (<i>SD</i> = 1.34)	4.60 (<i>SD</i> = 1.61)	4.06 (<i>SD</i> = 1.34)	4.13 (<i>SD</i> = 1.46)	4.76 (<i>SD</i> = 1.15)	4.74 (<i>SD</i> = 1.94)
Hard-working	5.70 (<i>SD</i> = 0.95)	6.04 (<i>SD</i> = 0.94)	5.37 (<i>SD</i> = 0.96)	5.27 (<i>SD</i> = 0.88)	5.65 (<i>SD</i> = 0.70)	6.00 (<i>SD</i> = 1.20)
Ambitious	6.10 (<i>SD</i> = 0.88)	6.00 (<i>SD</i> = 0.91)	5.75 (<i>SD</i> = 1.07)	5.53 (<i>SD</i> = 1.19)	5.71 (<i>SD</i> = 0.85)	5.95 (<i>SD</i> = 0.85)
Sexy	4.50 (<i>SD</i> = 1.27)	4.68 (<i>SD</i> = 1.25)	4.75 (<i>SD</i> = 1.07)	4.20 (<i>SD</i> = 1.32)	4.47 (<i>SD</i> = 1.18)	4.53 (<i>SD</i> = 0.84)
Adventurous	5.50 (<i>SD</i> = 1.27)	5.52 (<i>SD</i> = 1.19)	5.94 (<i>SD</i> = 0.85)	5.67 (<i>SD</i> = 1.05)	5.53 (<i>SD</i> = 1.13)	5.58 (<i>SD</i> = 1.12)
Reliable	5.90 (<i>SD</i> = 1.45)	6.52 (<i>SD</i> = 0.59)	6.00 (<i>SD</i> = 0.97)	5.87 (<i>SD</i> = 0.74)	6.12 (<i>SD</i> = 0.48)	6.37 (<i>SD</i> = 1.01)
Liberal	4.20 (<i>SD</i> = 1.48)	5.04 (<i>SD</i> = 0.94)	5.00 (<i>SD</i> = 1.16)	5.47 (<i>SD</i> = 0.83)	4.47 (<i>SD</i> = 0.80)	5.05 (<i>SD</i> = 1.39)
Assertive	4.70 (<i>SD</i> = 1.49)	4.76 (<i>SD</i> = 1.27)	4.75 (<i>SD</i> = 0.68)	4.87 (<i>SD</i> = 1.06)	4.82 (<i>SD</i> = 1.13)	5.00 (<i>SD</i> = 1.33)
Fun-loving	5.90 (<i>SD</i> = 1.10)	6.44 (<i>SD</i> = 0.58)	6.31 (<i>SD</i> = 0.79)	6.07 (<i>SD</i> = 0.88)	5.94 (<i>SD</i> = 1.03)	6.42 (<i>SD</i> = 0.77)

Table 2.7
Means for *Partner Attributes* by Gender and Sex Ratio Condition (For 10 Photo Condition)

Partner Attribute	More Men		Equal		Fewer Men	
	Male	Female	Male	Female	Male	Female
Intelligent	5.90 (<i>SD</i> = 0.74)	6.22 (<i>SD</i> = 0.60)	6.06 (<i>SD</i> = 0.57)	6.21 (<i>SD</i> = 0.63)	6.07 (<i>SD</i> = 0.83)	6.15 (<i>SD</i> = 0.49)
Conservative	3.90 (<i>SD</i> = 1.20)	4.17 (<i>SD</i> = 1.75)	4.31 (<i>SD</i> = 1.35)	4.79 (<i>SD</i> = 1.48)	4.43 (<i>SD</i> = 1.02)	4.20 (<i>SD</i> = 1.47)
Hard-working	5.70 (<i>SD</i> = 0.68)	6.43 (<i>SD</i> = 0.66)	6.06 (<i>SD</i> = 0.68)	6.42 (<i>SD</i> = 0.61)	5.50 (<i>SD</i> = 1.35)	6.25 (<i>SD</i> = 0.79)
Ambitious	5.50 (<i>SD</i> = 1.08)	6.13 (<i>SD</i> = 0.76)	6.06 (<i>SD</i> = 0.77)	5.95 (<i>SD</i> = 0.85)	5.57 (<i>SD</i> = 1.40)	5.80 (<i>SD</i> = 1.06)
Sexy	5.50 (<i>SD</i> = 0.97)	5.43 (<i>SD</i> = 1.27)	6.06 (<i>SD</i> = 0.93)	5.58 (<i>SD</i> = 1.22)	5.29 (<i>SD</i> = 0.99)	5.00 (<i>SD</i> = 1.08)
Adventurous	5.80 (<i>SD</i> = 1.03)	5.87 (<i>SD</i> = 0.87)	5.63 (<i>SD</i> = 0.81)	5.58 (<i>SD</i> = 1.35)	5.43 (<i>SD</i> = 1.40)	5.60 (<i>SD</i> = 1.00)
Reliable	6.50 (<i>SD</i> = 0.71)	6.74 (<i>SD</i> = 0.45)	6.75 (<i>SD</i> = 0.58)	6.63 (<i>SD</i> = 0.50)	6.71 (<i>SD</i> = 0.47)	6.80 (<i>SD</i> = 0.41)
Liberal	3.70 (<i>SD</i> = 1.70)	4.91 (<i>SD</i> = 0.79)	5.25 (<i>SD</i> = 1.00)	4.68 (<i>SD</i> = 1.53)	4.43 (<i>SD</i> = 1.09)	4.10 (<i>SD</i> = 1.29)
Assertive	4.90 (<i>SD</i> = 0.88)	5.09 (<i>SD</i> = 1.28)	4.94 (<i>SD</i> = 1.34)	5.32 (<i>SD</i> = 1.11)	5.07 (<i>SD</i> = 1.00)	5.30 (<i>SD</i> = 0.98)
Fun-loving	6.50 (<i>SD</i> = 0.53)	6.30 (<i>SD</i> = 0.64)	6.44 (<i>SD</i> = 0.81)	6.47 (<i>SD</i> = 0.81)	5.93 (<i>SD</i> = 1.07)	6.30 (<i>SD</i> = 0.92)

Table 2.8
Means for *Partner Attributes* by Gender and Sex Ratio Condition (For 20 Photo Condition)

Partner Attribute	More Men		Equal		Fewer Men	
	Male	Female	Male	Female	Male	Female
Intelligent	5.90 (<i>SD</i> = 0.57)	6.26 (<i>SD</i> = 0.76)	5.80 (<i>SD</i> = 0.56)	5.69 (<i>SD</i> = 0.87)	5.88 (<i>SD</i> = 0.60)	5.65 (<i>SD</i> = 1.39)
Conservative	4.00 (<i>SD</i> = 1.49)	4.07 (<i>SD</i> = 1.62)	3.73 (<i>SD</i> = 1.79)	3.44 (<i>SD</i> = 1.59)	4.59 (<i>SD</i> = 0.87)	4.30 (<i>SD</i> = 1.75)
Hard-working	5.40 (<i>SD</i> = 0.97)	6.37 (<i>SD</i> = 0.74)	5.80 (<i>SD</i> = 0.86)	5.81 (<i>SD</i> = 0.91)	6.00 (<i>SD</i> = 0.50)	6.30 (<i>SD</i> = 1.03)
Ambitious	5.70 (<i>SD</i> = 0.68)	6.26 (<i>SD</i> = 0.66)	5.60 (<i>SD</i> = 0.99)	5.81 (<i>SD</i> = 0.83)	5.65 (<i>SD</i> = 0.86)	6.05 (<i>SD</i> = 1.00)
Sexy	5.50 (<i>SD</i> = 1.27)	5.33 (<i>SD</i> = 1.52)	5.87 (<i>SD</i> = 0.92)	4.62 (<i>SD</i> = 1.03)	5.65 (<i>SD</i> = 0.93)	5.15 (<i>SD</i> = 1.27)
Adventurous	5.60 (<i>SD</i> = 0.97)	5.93 (<i>SD</i> = 0.83)	6.07 (<i>SD</i> = 0.59)	5.50 (<i>SD</i> = 0.89)	5.65 (<i>SD</i> = 0.86)	5.55 (<i>SD</i> = 1.05)
Reliable	6.20 (<i>SD</i> = 0.63)	6.81 (<i>SD</i> = 0.40)	6.40 (<i>SD</i> = 0.51)	6.44 (<i>SD</i> = 0.73)	6.35 (<i>SD</i> = 0.61)	6.65 (<i>SD</i> = 0.81)
Liberal	3.70 (<i>SD</i> = 1.06)	4.48 (<i>SD</i> = 1.40)	4.47 (<i>SD</i> = 1.13)	4.94 (<i>SD</i> = 1.34)	4.47 (<i>SD</i> = 1.33)	4.80 (<i>SD</i> = 1.01)
Assertive	4.70 (<i>SD</i> = 1.25)	5.52 (<i>SD</i> = 0.85)	5.20 (<i>SD</i> = 0.68)	5.06 (<i>SD</i> = 0.85)	5.18 (<i>SD</i> = 0.73)	5.30 (<i>SD</i> = 0.73)
Fun-loving	6.30 (<i>SD</i> = 0.82)	6.63 (<i>SD</i> = 0.49)	6.60 (<i>SD</i> = 0.63)	6.13 (<i>SD</i> = 0.96)	6.53 (<i>SD</i> = 0.72)	6.40 (<i>SD</i> = 1.05)

Marriage, Children, Flirting Style, and Relationship Type Preferences

A *chi-square* test for independence was performed on participants' responses to items regarding the desire to get married, the desire to have children, flirting style, and relationship type preference to determine if there was a significant difference in responses by sex ratio condition, number of photos, or gender.

Participants' desire to get married, as well as their desire to have children, did not differ by sex ratio condition, number of photos, or gender. Participants' reported flirting style did not differ by sex ratio or number of photos. However, participants' reported flirting style did differ by gender, $\chi^2(2, N = 214) = 7.92, p = 0.02, d = 0.28$ (see Table 2.10). Participants' reported relationship type preference did not differ by sex ratio or number of photos, though it did differ significantly by gender, $\chi^2(2, N = 214) = 9.90, p < 0.01, d = 0.25$ (see Table 2.11).

Table 2.9
Flirting Style by Gender

Flirting Style	Number of Individuals Reporting Each Flirting Style	
	Male	Female
Hang back, and wait for them to come to you	56	102
On the prowl, always the first to approach people	18	11
I don't flirt	13	14

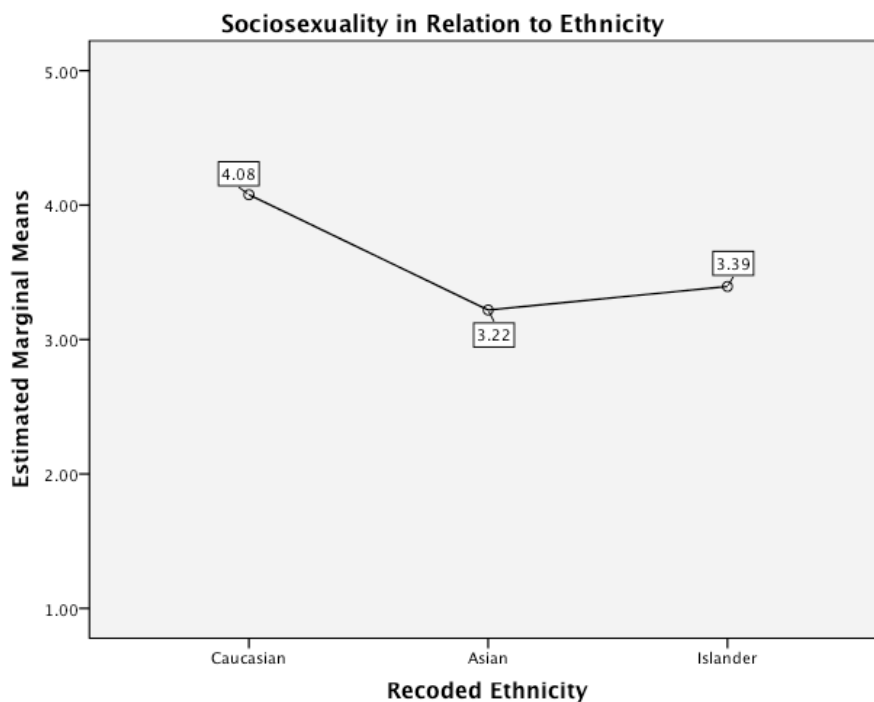
Table 2.9
Relationship Type Preference by Gender

Relationship Type Preference	Number of Individuals Reporting Each Relationship Type Preference	
	Male	Female
Casual (Short-term)	34	24
Serious (Long-term)	44	89
Not interested in any kind of relationship	10	11

Additional Analyses: Ethnicity as a Possible Moderator of Sociosexuality

In addition to the analyses that were pertinent to the hypotheses, further statistical tests were performed to explore potential moderators of sociosexuality. Ethnicity was broken down and recoded into Caucasian, Asian (Chinese, Japanese, and Korean), and Islander (Filipino, Hawaiian/Part Hawaiian, and Pacific Islander). A one-way ANOVA was then performed to test the potential effects of ethnicity on sociosexuality (as computed by the global sociosexual orientation score). Results showed that there was a significant main effect of ethnicity on sociosexuality, $F(2, 171) = 8.84, p < 0.01$ (with an effect size of $d = 0.73$ when contrasting the Caucasian and Asian groups, and an effect size of $d = 0.55$ when contrasting the Caucasian and Islander groups). A Bonferonni Post Hoc Test further informed this effect by demonstrating a significant difference in sociosexuality between the Caucasian group and both the Asian and Islander groups. There was no significant difference between the Asian group and the Islander group (see Figure 2.3).

Figure 2.3- Main Effect of Ethnicity on Sociosexuality



CHAPTER 3- DISCUSSION

In general, these findings did not support Hypothesis 1, which predicted that participants' sociosexuality scores would differ based on sex ratio condition. One possible explanation for this failure to detect a significant effect could be that manipulating the *perceived* sex ratio of an online dating website does not actually impact the availability of potential partners. Participants for this study were all college students, and as such are routinely exposed to a relatively large population of potential sexual partners. Conducting this study with an older population, whose social circles are confined largely to their work environments, may have resulted in a significant effect. Additionally, it may be the case that the effects of sex ratios on sociosexuality may be mediated by dating successes and failures. That is to say that, knowing your odds of finding a partner (based on the sex ratio of your population) may not have as big of an impact on the development of your sociosexual orientation as having been repeatedly successful or unsuccessful at obtaining a sexual partner (the outcome of which would be dependent on the sex ratio of your population). In order to incorporate the additional variable of successes and failures into this experimental paradigm, participants would have needed to interact with one another as website members and actively seek a potential partner.

As illustrated in the results, Hypothesis 2, which predicted that there would be gender differences in sociosexuality, was supported. Men did tend to have higher sociosexuality scores than women, indicating a greater willingness to engage in casual sex. A surprising finding, however, was that men and women did not differ in their previous casual sex behaviors. In particular, the number of sexual partners they had in the past 12 months, the total number of one night stands they have engaged in, and the total number of people they have had sex with without the desire for a long-term relationship was not significantly different for men and women. This is somewhat surprising considering that the student population of the University of Hawaii at Manoa is slightly more female-biased, giving male students a greater opportunity for finding a sexual partner. On the other hand, attitudes towards and desires for casual sex did differ by gender. This suggests that, while men tend to have more favorable attitudes towards and greater desires for casual sex than women, men and women do not

actually differ in their casual sexual behaviors. A possible explanation for this finding is that the male participants for this study are systematically different from the general male population at the university.

Furthermore, Hypothesis 3, which predicted that participants' ratings of personal attributes would differ by both gender and sex ratio condition, also failed to find support. Not only were there no main effects of gender or sex ratio, there were also no interactions between these factors. Participants' ratings of preferred partner attributes, however, demonstrated interactions between sex ratio and gender. These findings partially support Hypothesis 4, which predicts that participants' ratings of preferred partner attributes would differ by both gender and sex ratio condition (see Figure 2.1). Of particular note is the male-biased condition, in which women tended to rate partner attributes as being more important than men did. This finding supports current sex ratio literature, as it demonstrates that women may become more selective as they are provided with more options, and conversely men may become less selective when they perceive a lesser chance of finding a partner. Further investigation into the individual preferred partner attributes unveiled that women believed it was more important for their partners to be hard-working, reliable, and ambitious than men typically did, and men believed it was more important for their partner to be sexy than women typically did. Additionally, having a partner that was liberal became less important for men when in a male-biased condition (in which there was more men than women)- though this result disappeared when doing a Bonferroni post hoc test. Interestingly, intelligence and reliability seem to be more important to individuals when there are fewer member photos presented. It is unclear why this may have been the case.

Hypothesis 5, which predicted that relationship type preferences (i.e. short-term, long-term, or no interest in a relationship) would differ by sex ratio condition, was ultimately not supported. Once again, however, there were gender differences for this variable. More specifically, women tended to prefer more long-term relationships while men tended to prefer more short-term relationships. It is important to note, however, that both men and women cited long-term, serious relationships as the most preferred relationship type. This finding supports current sexual strategies literature,

which postulates that, due to constraints posed by reproductive ceilings and parental investment, women will prefer long-term relationships more than men and men will prefer short-term relationships more than women (Gangestad & Simpson, 1990).

Finally, hypothesis 6, which predicted that there would be no significant differences in any variables as a result of number of photos used in the website, was mostly supported. There was no main effect of number of photos on sociosexuality. However, there was main effect of number of photos for the preferred partner attributes of intelligent and reliable. It is unclear why this may have been the case.

An additional finding, for which no hypotheses were postulated, is that ethnicity directly impacts sociosexuality. In particular, Caucasian individuals are significantly more willing to engage in casual sex than either Asians or Islanders. It is unclear what drives these ethnic differences in sociosexuality. It could be the case that cultural norms play a greater role in the development of sociosexuality than originally anticipated. However, it could also be the case that a large portion of the Asian and Islander individuals in this sample still live at home with their parents, and as such have less opportunity for casual sexual encounters. This should be explored further.

Limitations

The limitations of this study generally fall into either experimental design flaws or participant recruitment issues. Some of these limitations were anticipated, and others were not. In terms of design flaws, the major issues that arose were the believability of the website and the fact that the actual sex ratio of the participants' population (and therefore the availability of potential partners) did not change. Though most participants believed that OtherFishInTheScene.com looked like a real online dating website, some perhaps more tech savvy individuals were able to detect that the site was artificial – usually by glancing at the URL and seeing that it directed to a computer file, not to the World Wide Web. Using a virtual population rather than a “real world” environment to test the potential shift in sociosexuality was an anticipated limitation. This virtual design was chosen over real world conditions because it allowed for greater control over confounding variables. However, a similar study conducted in a real world context may have returned more significant results. Additionally, by telling participants that they were “piloting” an online dating website rather than becoming

members of the site may have impacted the effort and consideration invested in their profile creation.

Recruiting participants for this study posed several difficulties. Perhaps the most important issue was that individuals who volunteered to “pilot OtherFishInTheScene.com,” a supposed online dating website, may have been different in terms of their sexual behaviors and expectations than the average University of Hawaii at Manoa undergraduate student. Additionally, male participants were much harder to come by than female participants, resulting in an uneven gender distribution across the conditions. Another participant related issue was, despite receiving instructions to not discuss the study with fellow classmates, many participants communicated to others that the website was not real and was “an easy way to get extra credit.” As a result, a large number of participants came in already knowing the true nature of the study, and quickly navigated the website without attending to the primes or thoughtfully answering the questions. To combat this issue, participants were recruited from numerous departments, and each participant was asked after completing the profile if they knew the website was fake. There was no significant difference between those who were deceived and those who were not.

Future Directions

The results of this study suggest several potential directions for future research. First is the need to test this experimental paradigm in a real world environment, in which the actual ratio of men to women is manipulated. The additional variable of *time spent in condition* may need to be added to this study design as it could potentially moderate the change in sociosexuality. Also, the results of this study highlight the need to investigate the impact of cultural beliefs and practices on sociosexuality, particularly among more collectivistic cultures.

7. How often do you have fantasies about having sex with someone you are *not* in a committed romantic relationship with?
- 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 you are *not* in a committed romantic relationship with?
- 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 B- OTHERFISHINTHESCENE.COM WEBSITE DESIGN

[Welcome](#) [About Our Site](#) [Create A Profile](#) [Log Out](#)

OtherFishInTheScene.com




Use OtherFishInTheScene.com to meet single people in the Honolulu area that share your interests.



Welcome to OtherFishInTheScene.com!
 Congratulations for being one of our first members! So far we have accumulated just over 100 active members in the Honolulu area, and are continuing to grow every day. As of right now, our member population consists of about **28% women and 72% men.**

By providing us with some information about your favorite qualities in a partner, your preferred relationship type, and some personal information about your sex life, we will be able to pair you with other singles in the area.

Just a few more steps before you can start checking out member profiles.

[Click Here to Continue](#)

Countdown to Our Site Launch Date!

0	0	0	0	0	0
Days	Hours	Mins	Secs		

* The percentages of men and women on the Welcome Page differed by sex ratio condition. In the male-biased condition (pictured above) the percentages were listed as 28% women and 78% men; in the gender-balanced condition the percentages were listed as 48% women and 52% men; and in the female-biased condition the percentages were listed as 78% women and 28% men.

[Welcome](#) [About Our Site](#) [Create A Profile](#) [Log Out](#)

About OtherFishInTheScene.com

How OtherFishInTheScene.com Works

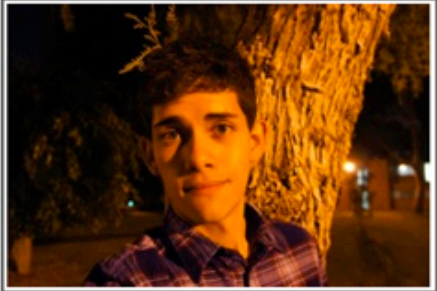
To create a profile, please choose a username and enter it into the box below (to do this simply double-click on the box below and type in your username):

USERNAME:

When you are finished creating your profile, you will be given the opportunity to become a new member of OtherFishInTheScene.com. At that point you will be asked to create a password and provide your email information.

While creating your profile we are going to ask a few *intimate* questions. Please answer as honestly as possible so that we can better connect you with other compatible singles. Pages will be clearly marked as to whether or not the information will appear on your profile.

CHECK OUT OUR NEWEST MEMBERS!



Our Membership Stats:

MEN 84

WOMEN 33

LOCATION Honolulu, HI

[Click Here to Continue](#)

* The specific membership stats listed on the About Our Site page differed by sex ratio condition, as did the new member slideshow. In the male-biased condition (pictured above) there were 84 men and 33 women; in the gender-balanced condition there were 61 men and 56 women; and in the female-biased condition there were 33 men and 84 women.

Just A Few Questions:

This information will **NOT** appear on your profile!

PLEASE RESPOND HONESTLY TO THE FOLLOWING QUESTIONS. YOUR ANSWERS TO THESE QUESTIONS WILL BE KEPT COMPLETELY CONFIDENTIAL AND WILL NOT APPEAR ON YOUR PROFILE.

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 you are *not* in a committed romantic relationship with?

- Never
 Very seldom
 About once every two or three months
 About once a month

- About once every two weeks
- About once a week
- Several times per week
- Nearly every day
- At least once a day

8. How often do you experience sexual arousal when you are in contact with someone you are *not* in a committed romantic relationship with?

- Never
- Very seldom
- About once every two or three months
- About once a month
- About once every two weeks
- About once a week
- Several times per week
- Nearly every day
- 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?

- Never
- Very seldom
- About once every two or three months
- About once a month
- About once every two weeks
- About once a week
- Several times per week
- Nearly every day
- At least once a day

[CLICK HERE TO SUBMIT & CONTINUE](#)

A Few More Questions...

This information will appear on your profile!

HOW TRUE ARE THE FOLLOWING STATEMENTS ABOUT YOU?

1. I am an intelligent person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

2. I am a conservative person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

3. I am a hard-working person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

4. I am an ambitious person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

5. I am a sexy person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

6. I am an adventurous person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

7. I am a reliable person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

8. I am a liberal person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

9. I am an assertive person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

10. I am a fun-loving person.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

HOW TRUE ARE THE FOLLOWING STATEMENTS ABOUT YOUR IDEAL ROMANTIC PARTNER?

1. It is important that my partner is intelligent.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

2. It is important that my partner is conservative.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

3. It is important that my partner is hard-working.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

4. It is important that my partner is ambitious.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

5. It is important that my partner is sexy.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

6. It is important that my partner is adventurous.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

7. It is important that my partner is reliable.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

8. It is important that my partner is liberal.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

9. It is important that my partner is assertive.

Very Untrue
 Untrue
 Somewhat Untrue
 Neutral
 Somewhat True
 True
 Very True

10. It is important that my partner is fun-loving person.

Very Untrue Untrue Somewhat Untrue Neutral Somewhat True True Very True

WHAT TYPE OF RELATIONSHIP ARE YOU MOST INTERESTED IN?: (CHECK ONE)

- Casual (Short-term)
- Serious (Long-term)
- Not interested in any kind of relationship

WHAT IS YOUR "FLIRTING STYLE"?: (CHECK ONE)

- Hang back, and wait for them to come to you
- On the prowl, always the first to approach people
- I don't flirt

DO YOU WANT TO GET MARRIED?: (CHECK ONE)

- Yes, definitely!
- Not sure
- No way!

DO YOU WANT TO HAVE CHILDREN?: (CHECK ONE)

- Yes, definitely!
- Not sure
- No way!

[CLICK HERE TO SUBMIT & CONTINUE](#)

Background Information

This information will appear on your profile!

WHAT IS YOUR GENDER: Male Female

AGE (TYPE IN YOUR ANSWER):

EDUCATION LEVEL:

- Some High-School
- High-School Graduate
- Some College**
- College Graduate
- Post College

** If you selected 'Some College,' please type in your college standing (i.e. Freshman, Sophomore, Etc.):

WHAT ETHNICITY DO YOU IDENTIFY THE MOST WITH? (CHECK ONE)

- African/African American
- American Indian/Alaska Native
- Caucasian
- Chinese
- Filipino
- Hawaiian/Part Hawaiian
- Hispanic/Latino/Mexican American
- Japanese
- Korean
- Middle Easterner
- Other Asian

- Other Asian
- Pacific Islander
- Persons of the Indian Subcontinent
- Portuguese
- Other (Please Specify):

RELATIONSHIP STATUS (CHECK ONE)

- Single (i.e. not currently in a committed romantic relationship)
- Dating Exclusively
- Married/Cohabiting

WHICH OF THE FOLLOWING SEXUAL ORIENTATIONS DO YOU CONSIDER YOURSELF TO BE?

- Homosexual
- Bisexual
- Heterosexual
- Other (Please Specify):

[CLICK HERE TO SUBMIT & CONTINUE](#)

A [Welcome](#) [About Our Site](#) [Create A Profile](#) [Log Out](#)

Profile Information:

This information will appear on your profile!

This is your chance to share with the 'other fish in the scene' who you really are and what you're interested in...Click the text boxes below and tell us about yourself!

ABOUT ME:

WHAT ARE YOU LOOKING FOR IN A ROMANTIC PARTNER?:

[CLICK HERE TO SUBMIT & CONTINUE](#)

Thank you!

*Please see the research assistant
for further instructions.*

***DO NOT CLOSE OUT OF THIS
WINDOW!***

APPENDIX C- STUDY ADVERTISEMENT

The University of Hawai'i is conducting a study:

OtherFishInTheScene.com

Are you over the age of 18 and single?

If the answer to this question is **YES...**

Megan Forbes would like to invite you to pilot an online dating website and to possibly become one of its first members!

The purpose of this study is to create an online dating website that accurately pairs single people in the Honolulu area based on a series of personal questions. This research will be used in the development of OtherFishInTheScene.com.

To learn more about the study and/or sign up to participate, please email Megan Forbes at mforbesuhm@gmail.com.

UH IRB Approval 12/1/11

APPENDIX D- CONSENT FORM

University of Hawai'i at Manoa

Consent to Participate in Research Project:

My name is Megan Forbes and I am a graduate student in the Department of Psychology at the University of Hawaii. I am currently piloting an online dating website which attempts to pair single people in the Honolulu area based on their responses to a series of key questions. You are being asked to participate because you are a single (i.e. not currently in a committed romantic relationship) undergraduate student at the University of Hawaii.

Project Description- Activities and Time Commitment: For the study, you will create a new member profile, while also giving feedback on the overall design and functionality of the website. You will be asked questions about your personal preferences in a romantic partner, your own personal attributes, your sexual history, and your opinions about sex. The questionnaire and website feedback should take about 20 minutes. No personally identifying information will be included with the research results.

Benefits and Risks: I believe that there is little or no risk to participating in this research project. Participating in this research may be of no direct benefit to you. It is believed, however, the results from this project will help social scientists better understand what influences people in choosing a romantic partner.

Confidentiality and Privacy: Research data will be confidential to the extent allowed by law. Agencies with research oversight, such as the UH Committee on Human Studies, have the authority to review research data. However, as stated above, your name and personal information will not be connected in any way to the data. All research records will be stored in a locked file in the primary investigator's office for the duration of the research project. All research records will be destroyed three years after the completion of the project.

Voluntary Participation: Participation in this research project is completely voluntary. At any point in time, you are free to discontinue participation for whatever reason. If you choose to discontinue participation, you are not required to give a reason for why you wish to stop. If you choose to discontinue your participation in this study, you will still receive your extra credit points.

Questions: If you have any questions regarding this research project, please contact me, Megan Forbes at mforbes@hawaii.edu. If you have any questions regarding your rights as a research participant, please contact the UH Committee on Human Studies at (808)956-5007, or uhirb@hawaii.edu

Please keep the first page of this consent form for your records.
If you agree to participate in this project, please print and sign your name on the appropriate lines of the following portion of this consent form and return to either the researcher or research assistant.

Signature for Consent:

I agree to participate in the above mentioned research project. I understand that I can change my mind about participating in this project at any time by notifying the researcher.

Print your name here: _____

Sign your name here: _____

APPENDIX E- SCRIPT

Hello, my name is _____. I am one of the research assistants for this project. Before we begin, please sign in by writing your name and the class that you will be receiving extra credit for on this sheet *[direct them to the sign in sheet]*. Okay, now please have a seat and read through this consent form *[hand participant the consent form]*. If you agree to participate in this project, please print and sign your name on the bottom of the second page. When you are done reading through it and signing your name, let me know and we will go ahead and get you started.

If Consent NO:

Thank you for your time. You will still be receiving the extra credit points for your class even though you chose not to participate in this study. Enjoy the rest of your day.

If Consent YES:

Thank you for agreeing to participate in this study. As the consent form mentioned, you are here to pilot an online dating website. This website is not currently online and for now only exists on our lab computer. We are hoping to launch this website on February 14th, 2012. We have two goals before we launch the site, the first is to work out all of the kinks, and the second is to recruit more members, which we have actively been doing for the past few weeks.

You have been asked to participate because you are a single person in the Honolulu area, which is the target population of our website. What we would like you to do is to create a new member profile on our site, while also giving us feedback on the feedback form that I will give you in a few minutes. Once you are finished creating your profile, you will have the option to keep your profile and become a fully-fledged member when our site is launched, or to delete your profile entirely.

Okay let's get you started. *[Pull up the website]* Follow the instructions on this feedback form *[give them the feedback form]* step-by-step to go through the website and create your profile. If you have any questions, please let me know.

Once they have gotten to the last page of the website:

Now that you have finished with the website, there are some things that I need to tell you. First of all, this study was not for the purpose of creating a new online dating website.

Did you, at any point, realize that this was not a real website? (If they did know, ask them how they knew).

The real focus was to test how the proportion of men to women in a population, in this case, an online dating site, can affect peoples' willingness to engage in casual sex, the way they portray themselves to potential romantic partners, and the attributes they seek out in potential romantic partners.

In order to get natural, unbiased responses from you we had to give you some false information. Namely we told you that you would be piloting our website and have the chance to become one of our first members. We also told you that we would be able to pair you with other single people in the Honolulu area. This was not true. By telling you that you would potentially become a part of our online dating website, it was much more likely that you would answer the questions as if you were really creating a member profile. We apologize for misleading you, but we believe that it was the only way to investigate the subject of our research.

If you are uncomfortable with having been deceived, you are free to withdraw your information from this study. We assure you that the answers to the questions you provided were completely anonymous and will be analyzed as group data. The username that you entered into the second page of the website will not be included in the data and will be discarded as soon as you leave the lab.

Because this experiment is ongoing, we request that you not share the true nature and purpose of this experiment with others who might potentially participate in our study. It is very important that you keep this information confidential. As you probably realize, if you knew the full extent of the study before you participated, it would have greatly affected your behavior. Other participants would also be affected if they knew the true purpose, so please keep this confidential.

[Hand the participant the written debriefing form]. This is the formal debriefing form which says everything that I just told you and provides you with contact information if you want to get in touch with the researcher, as well as the contact information for the UH Committee on Human Studies if you have any questions or concerns about your treatment today.

Do you have any questions at this point? *[Answer any questions they have]* Thank you so much for your participation, we will make sure that you get your extra credit points.

Once they have left the lab, print out their responses, write a Y (if the participant was aware of the deception) or an N (if they were not aware) on the bottom of the first page, and store the printouts in the lock box. Make sure to exit the webpage once you have printed the participant's responses.

APPENDIX F- FEEDBACK FORM

Website Feedback Form

Thank you for agreeing to help us pilot our new online dating website, *OtherFishInTheScene.com*! What we are going to have you do today is create a new member profile on our website, while also answering a series of questions on this feedback form. This form will give you step-by-step instructions on how to create a profile and how to navigate our website.

We greatly value your feedback, and hope that at the end of this experience you choose to become a member of our site.

Please follow the instructions throughout this feedback form to help you navigate our website. If you have any questions, feel free to ask either the website creator (Megan Forbes) or one of her research assistants.

Welcome Page

Step 1: Read the message on the welcome page.

1. Do you think it is helpful for you to know the proportion of men to women on our website?

YES NO

2. Is the welcoming message clear?

YES NO

3. Does the welcoming message make you want to explore the rest of the site?

YES NO

Other Comments:

Step 2: Please select the 'Click Here to Continue' button to navigate to the next page.

About Our Site Page

Step 3: Read all of the text on this page.

Step 4: Enter your username into the designated box.

Step 5: Please watch the slideshow of new members at the bottom of the page.

1. Are the instructions for how to create a new member profile clear?

YES NO

2. Is the message about confidentiality clear?

YES NO

3. Would you be interested in getting to know any of the new members in this slideshow?

YES NO

4. Is it helpful to know the exact number of men and women that are members of our site?

YES NO

5. Is it overly repetitive to state the number of men and women that are members of our site?

YES NO

Other Comments:

Step 6: Please select the 'Click Here to Continue' button to navigate to the next page.

Questionnaire Page 1

Step 7: Answer all of the questions on this page.

1. Did you answer these questions honestly?

YES NO

2. Were the directions clear?

YES NO

3. Were the questions clear?

YES NO

Other Comments:

Step 8: Once you are finished answering all the questions on this page, please select the 'Click Here to Continue' button to navigate to the next page.

Questionnaire Page 2

Step 9: Answer all of the questions on this page.

1. Did you answer these questions honestly?

YES NO

2. Were the directions clear?

YES NO

3. Were the questions clear?

YES NO

Other Comments:

Step 10: Once you are finished answering all the questions on this page, please select the 'Click Here to Continue' button to navigate to the next page.

Background Information

Step 11: Answer all of the questions on this page.

1. Did you answer these questions honestly?

YES NO

2. Were the directions clear?

YES NO

3. Were the questions clear?

YES NO

Other Comments:

Step 12: Once you are finished answering all the questions on this page, please select the 'Click Here to Continue' button to navigate to the next page.

Profile Information

Step 13: Answer all of the questions on this page.

This part of the profile creation process is your chance to tell other members about yourself and what you are interested in. *Click* on the text boxes on this page to enter in whatever information you want to share about yourself with our other members.

1. Were your responses on this page honest?

YES NO

2. Were the directions clear?

YES NO

3. Were the questions clear?

YES NO

Other Comments:

Step 14: Once you are finished entering in your responses on this page, please select the 'Click Here to Continue' button to navigate to the next page.

Log Out

Step 15: Please return this feedback form to the research assistant. Once you have returned the form, they will give you further instructions.

APPENDIX G- DEBRIEFING FORM

University of Hawai'i at Manoa**Debriefing Form:** The Effects of Operational Sex Ratios on Sociosexuality

Thank you for your participation in this study. The purpose of this study is to investigate the ways in which the ratio of men to women in a population can affect peoples' behavior. Most of the research in this area looks at populations in which there is an existing gender ratio bias (e.g. there are either more men than women, or more women than men). This study, on the other hand, is exploring whether or not things like willingness to engage in casual sex (sociosexuality), preferences in a romantic partner, and the way that people portray themselves to potential romantic partners can be manipulated by changing the gender ratio of the environment they are in, which in this case is a faux online dating network.

In order to obtain unbiased or natural responses, we had to give you some false information. More specifically, we told you that you were helping us pilot an online dating website which you would be given the opportunity to become a member of. We also informed you that based on your responses to our questionnaire we would be able to pair you with other single people in the Honolulu area that shared similar interests. But in fact, the website was not real and your responses to the questionnaire were not used to create a member profile.

This was necessary for us to better understand how gender ratios can influence behaviors, particularly in online dating networks. By telling you that you would potentially become a part of our online dating website, it was much more likely that you would answer the questions as if you were truly creating a member profile. We apologize for misleading you, but we believe that it was the only way to investigate the subject of our research.

If you are uncomfortable with having been deceived, you are free to withdraw your information from this study. We assure you that the answers to the questions you provided were completely anonymous and will be analyzed as group data. The username that you entered into the second page of the website will not be included in the data and will be discarded as soon as you leave the lab.

Because this experiment is ongoing, we request that you not share the true nature and purpose of this experiment with others who might potentially participate in our study. It is very important that you keep this information confidential. As you probably realize, if you knew the full extent of the study before you participated, it would have greatly affected your behavior. Other participants would also be affected if they knew the true purpose, so please keep this confidential.

If you have any questions about this research you may ask them now, or contact me, Megan Forbes, later at (808) 754-3611 or mforbes@hawaii.edu. If you have any questions regarding your treatment or your rights as a participant in this research project, please contact the University of Hawaii at Manoa Committee on Human Studies at (808) 956-5007, or uhirb@hawaii.edu.

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