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Forming Impressions Of Others: Does Sexuality Matter?

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FORMING IMPRESSIONS OF OTHERS: DOES SEXUALITY MATTER?

by

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ABSTRACT

Previous research suggests that the sexual double standard still exists today, and that women face greater social repercussions for engaging in casual sex than men. This study investigates the effects of religious priming on attitudes toward a hypothetic female target, who is portrayed as either having a single or multiple romantic partners in the past year. In addition, we examined how participants preexisting levels of religiosity, sexual conservatism, and moral concerns might further affect attitudes toward this target. Consistent with our original hypothesis, self reported levels of religiosity, religious fundamentalism and right-wing authoritarianism are associated with more conservative attitudes toward sexuality. Interestingly, this relationship did not influence how our hypothetical character was evaluated. The multiple-partner Amber was rated more negatively than her single-partner counterpart, regardless of participants preexisting levels of religiosity and sexual conservatism. What did appear to be driving this effect were participant's gender and relative moral concerns, specifically females and those who reported more purity/sanctity concerns. A consistent main effect was found for Amber's number of partners and for the gender of the participant. For some variables, gender of participant and Amber condition interacted, such that women tended to reward her more than men when she had a single partner. Understanding how people evaluate others based solely on their perceived sexual activity is important, and could shed light on some critical issues, including women's interpersonal relations and assault investigations.

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Introduction

When forming impressions of others, many factors are taken into account. For example, we may form an impression based on how someone is dressed, where they work, or by the kind of car they drive. This study aims to investigate how our impression of someone may change depending on the information that is provided. Specifically, we want to see how the experimentally manipulating the disclosure of one's sexual history might alter how others view them. According to the sexual double standard, men have more sexual freedom and face less repercussion than women in regard to casual, noncommittal sex. For that reason, we have decided to look only at women's sexuality to see how participant's impressions may change depending on her sexual history. In addition, we wanted to see if an individual's level of religiosity or their moral concerns would play a role in how they evaluate others in regard to sexuality.

The Sexual Double Standard

Every morning when young women across America wake up, they are confronted with a choice: How do I want the world to perceive me today? Open a magazine, turn on the T.V., or pop in a movie, and you will see a similar message being conveyed: Be sexy, be skinny, be desirable. The American media reinforces the cultural norm that a woman's value lies in her physical beauty. This is known as objectification, a process that reduces people down to objects, or bodies that exist for the use and pleasure of others (Fredrickson & Roberts, 1997). Self-objectification occurs when people internalize this idea, and ultimately define their sense of worth in relation to how their appearance is perceived. Fredrickson and Roberts (1977) found that self objectification can lead to both increased anxiety about one's physical appearance and body shame, a decreased sense of

awareness for internal body sensations such as hunger, and an increased fear of physical safety, which can lead to disordered eating, depression, and sexual dysfunction.

Yet women are simultaneously encouraged to restrict their sexual activity to the context of a committed, loving relationship (ideally marriage). Embracing one's sexuality and acting upon those bombarding demands to be sexy and desirable can tarnish a woman's reputation. Just recently, the Los Angeles Times published a story detailing the sexual education curriculum in Mississippi. The Oxford school district wanted to send a message to young men and women about what happens once a woman has sex. To demonstrate, teachers passed an unwrapped peppermint patty around the classroom to show how dirty it soon became, using the analogy that women are also not clean or valuable once they've had sex (Semuels, 2014). The competing messages women receive, to be sexy but to not have sex, are confusing, contradictory, and likely to elicit feelings of worthlessness and guilt. From this perspective, how does a woman possibly decide how she wants the world to perceive her? What social repercussions arise when she either does, or does not embrace her sexuality in all its facets? Before we can address such repercussions, we should first turn to the study of sexuality in America.

Before the 1940's, sexuality in America was studied almost exclusively from a medical perspective. Alfred Kinsey, a pioneer in sexuality research, created a lot of controversy when he turned this private aspect of human life into an objective and scientific field of study. At the time, most Americans believed that this was not an area that warranted public discussion and debate. Kinsey, who conducted 8,000 interviews and published two books on the sexual behavior of the human male and female, challenged many of the widely held assumptions at the time. (See Kinsey, 1948 and 1953.) Most

notably, he revealed that women were in fact sexual beings, contrary to the pervasive, cultural assumption that they were asexual. By forcing the reexamination of sexual attitudes and beliefs in America, Kinsey opened doors that led to the growing women's movement of the 1960's and 1970's.

Although Kinsey was the first to empirically study sexual behavior, Ira Reiss (1967) was the first to examine the attitudes surrounding sexuality. Specifically, he studied sexual permissiveness in the face of widely held societal standards. Conducting the first large scale study on sexual attitudes in 1967, Reiss surveyed participants on their thoughts regarding abstinence, the gender-based sexual double standard, premarital sexual permissiveness with affection, and premarital sexual permissiveness without affection. According to Reiss, very few people endorsed the "orthodox" view of the double standard, which states that it is only acceptable for men to engage in premarital sexual intercourse. Instead, he found that the conditional double standard was prevalent. The condition in which women are permitted to engage in sexual activity is within the context of a loving, committed relationship, whereas men are permitted to have sex without that condition. In other words, casual sex is acceptable for men but not for women, suggesting that men held greater rights and freedom in premarital sexual intercourse (Crawford & Popp, 2003). Research in the 1970's seemed to provide evidence that young people in America held men and women to a similar sexual standard (Peplau, Rubin & Hill, 1977), and that attitudes toward casual sex were becoming more permissive and egalitarian. Despite these findings, research on the sexual double standard persisted into the 1980's and 1990's, yielding mixed results.

Modern research has investigated how knowledge of someone's sexual behavior might influence impressions of that person. Specher, McKinney and Orbuch (1991) showed that knowledge about the current sexual experiences of an individual could affect how that individual is perceived. Specifically, such information could alter a participant's willingness to befriend, date, or potentially marry this individual. Mark and Miller (1986) and Marks and Farley (2005) found that both male and female hypothetical targets received harsher ratings as their sexual permissiveness, or number of sex partners, increased. In 1995, O'Sullivan added to this finding by revealing that more favorable ratings were given to those in a committed relationship, regardless of gender. Similarly, in 1987 Specher, McKinney and Orbuch gave participants a description of a fictional character's first sexual experience, and found that attitudes toward this character decreased as age of onset also decreased. In addition, however, they found that participants reported more negative attitudes towards women, contrary to the prior two studies.

Women have generally been seen as the "gate keepers" of sex, in that they are usually the ones who decide how far sexual encounters will proceed in a relationship (McCormick, 1994). For this reason, societal pressures to restrict sexual activity are generally focused on women. Failing to succumb to such pressures results in blame for the female. Both Bogle (2008) and England and Thomas (2006) found that men have more sexual freedom and gain status when engaging in casual sex. Women, on the other hand, run the risk of ruining their reputation for the same activity. Unlike men, the circumstance acceptable for women to engage in premarital sex requires a committed and romantic relationship, as previously discovered by Reiss.

The acceptable circumstance for men and women to engage in sex has been made quite clear; we see that men and women are presumably held to different standards, in which women's sexuality is more heavily restricted. How, then, do people perceive a woman who violates society's sexual norms? Reid et al. (2011) conducted an interesting study examining why people may want to follow up a one-night stand with a sexless date. Participants claimed a woman who follows up a one-night stand with a sexless date is attempting to restore her reputation with the man, or with herself. Women reported that post hookup feelings include shame, guilt, embarrassment, remorse or disgust. Fearful of gaining the reputation that she was "loose, easy or dirty" participants viewed the sexless date as an opportunity for the woman to correct any potential negative impressions that were formed. In contrast, men were perceived as going on a sexless follow-up date out of pity for the woman. The sexless date initiated by the man was assumed by participants to mean that he was not interested in continuing the relationship, and this was his way of letting her down easy. Such an act was described as both noble and honorable. This is just one example of how the same sex-related act can be interpreted vastly differently based solely on the gender of an individual.

Milhausen and Harold (1999) expanded further by surveying only women's attitudes and beliefs regarding the sexual double standard. Almost unanimously, women reported that the sexual double standard still exists. More importantly, about half (46%) of the participants said that fellow women, not men, were the harshest judges of a woman's sexual behavior. Often, we assume that the double standard is a product of the patriarchal culture to limit the sexuality of women, but this study suggests otherwise. It seems that women may endorse the double standard to distinguish themselves from

"promiscuous women" in order to maintain or possibly elevate their reputation and status among males. To understand how the double standard emerged in society, and how it has been maintained, we must turn to the main theoretical explanations.

One such theory for the development of the double standard in society is the evolutionary perspective. Although this is not the theoretical approach used by most social psychologists, it is important to understand and discuss. This theoretical perspective lies in the reproductive success of an individual, and the likelihood of passing on genes to the next generation. In order for males to maximize this potential, it is in their best genetic interest to have many casual, short-term partners with little parental investment. Due to the unlimited number of sperm a male can produce throughout his life, his evolutionarily success depends on his ability pass those sperm on to as many females as possible, in hopes that a few of those attempts will be successful. Women, on the other hand, produce a very limited number of eggs in comparison, and it is in their best interest to be selective in their mating choices, to have fewer children but to provide much higher levels parental investment. They seek long term, genetically fit partners in order to ensure survival of the offspring (Buss & Schmitt, 1993). The modern day translation of this evolutionary strategy results in the approval of multiple sex partners for males, but not females.

The social structure theory and the evolutionary theory can be combined to produce strong social forces that promote the sexual double standard. This theory states that the disparate standards for sexuality are socially constructed in terms of the patriarchal system in society. Differences in gender norms stem from the hierarchy of power and the division of labor in society. Because men hold the majority of the power,

they, in turn, get to dictate the standards of society. It is in their best evolutionary interest to simultaneously promote permissive sexual norms for males while restricting it for females, to increase both their reproductive potential and their paternal certainty.

One last theoretical approach is the cognitive social learning theory, which states that these socially sanctioned standards are reinforced throughout life. Women are stigmatized for engaging in casual, short-term sex, whereas men are rewarded for this same behavior. Reinforcement of these standards starts with how parents socialize their children to look, act, and think about their gender. With time, the majority of this gender norm reinforcement comes from peer rejection or approval. Consequently, these standards become internalized and upheld by the individual. But how do parents and peers decide what standards are appropriate to hold themselves and others to? Societal standards that dictate how we think, act, and feel are created and sustained by a number of institutional forces. For instance, the United States government has the power to dictate who we can and cannot legally marry. Many American citizens view same sex couples as degrading the sanctity of marriage. Strong attitudes toward this cultural violation have resulted in the passage of laws that prohibit gay marriage. Although there are no laws that enforce the double standard, or that restrict the sexual activity of an individual, there are other social institutions, like religion, that regulate such behavior.

DeLamater (1981) claims that religion, as a social institution, has a great deal of control over human sexuality. He argues there are three ways in which a social institution like religion is able to sway behavior. First, religion provides people with a certain perspective on life, by presenting them with a set of assumptions and norms. For instance, it is considered normative for a man and a woman to engage in sex only when

they are married. Second, those who are apart of religious institutions tend to use these specific perspectives in informal interactions with others in order to reinforce its importance. In other words, people will praise chastity and encourage abstinence until marriage. Lastly, there are often social repercussions for going against any assumptions or norms, e.g., refusing to associate, or degrading someone who has sex before marriage. The fear of such sanctions leads to a greater conformity pressure.

Religion and Sexuality

Colossians 3:5: "Put to death, therefore, whatever belongs to your earthly nature: sexual immorality, impurity, lust, evil desires." This quote exemplifies the link between religious doctrines and restriction of human sexuality. One of the very first stories we encounter in the Old Testament is that of Adam and Eve. This classic tale has been interpreted in various ways throughout history. The earliest interpretations made minimal connections to sexuality (Reiss, 1990). The first 400 years of Christianity saw Adam and Eve as symbolizing human choice and freedom. Christ requested his followers exercise free will in order to attain moral goals, one of which was the control of sexual desires. It wasn't until St. Augustine in 386 A.D. that this interpretation began to shift. Augustine insisted that the human will was powerless to sexual desire, and gaining back such control requires the aid of an outside force, namely the church. Eve's eating from the Tree of Knowledge symbolized the release of sexual disobedience within human nature, insinuating that even the most self-disciplined person would eventually succumb to the "original sin" of man. This further suggested that dabbling in such dangerous waters would only lead to more serious sinful behavior.

In addition, St. Augustine insisted that sex should occur only for procreation;

anything otherwise was deemed evil. Building off the ideas of St. Augustine, St. Thomas Aquinas also promoted the idea that sex should only take place for purposes of producing children. The notion of restricted sexual activity has prevailed to present day Christianity. Some of the religious taboos associated with sexuality include homosexuality, sodomy, and masturbation, since none involve reproductive potential. In addition, sex during pregnancy, menstruation, and menopause are prohibited for the same reasons (Paige, 1977 as cited DeLamater, 1981). Although many people have challenged and rejected these views, they still have a profound influence over our actions and emotions (Reiss, 1990).

Previous research on this topic has found a positive correlation between religiosity and sexual conservatism. Numerous studies provide evidence that the more religious a person is, or the more active a church member, the more likely that he/she will hold more conservative attitudes about sex (Beckwith & Morrow 1998; Pluhar et al. 1998; Reiss, 1990). Not all religious groups hold the same attitudes toward sex. Judaism is seen as the most tolerant and harbors more permissive sexual attitudes, followed by Catholicism, then Protestantism (Cochran & Beeghley, 1991). The more condemning faith groups tend to view non-marital sexual relations as wrong. People who do engage in sex before marriage are viewed as sinners who should repent their actions through abstinence. Less proscriptive faith groups encourage their members to be more compassionate toward such actors, and some allow individuals to use their own judgment in sexual matters (Cochran & Beeghley, 1991). They are also more likely to allow sex in the context of love, not just marriage or for procreation (Reiss, 1990).

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Burdette, Ellison, Hill and Glenn (2009) found that Protestant women were less likely to have "hooked up" than women with no religious affiliation, and that finding was mediated by church attendance. Expanding on this finding, Brimeyer and Smith (2012) asked students the definition of hooking up, which was seen as any sexual encounter, not just intercourse. Results from their study showed that college students who attend religious services, as well as Protestants who interpret the Bible more literally, are less likely to "hook up" than Catholics. The amount students tend to hook up and date appears to increase with years in college (Brimeyer & Smith, 2012). In addition, they found that hooking up and dating seems to comfortably coexist for college students, suggesting one is not replacing the other in terms of mating strategies. Penhollow, Young, and Bailey (2007) also found that religiosity plays a significant role in who has or has not participated in casual, high-risk sexual behaviors, in that lower levels of religiosity are related to more frequent high-risk sexual encounters. In recent history, the United States has supported the religiously-motivated abstinence-only sex education programs for our school systems, and federal funding for such programs increased from $60 million in 1998 to $168 million in 2005 (Republican Study Committee, 2005). Although abstinence is the most effective way to avoid pregnancy and sexually transmitted diseases, very few adolescents maintain abstinence until marriage. Knowing this information, endorsing abstinence-only curriculua is scientifically and morally problematic, as it fails to offer information about pregnancy and STD prevention strategies. Although the government has cut spending for abstinence only programs, it is still taught in many schools today.

The relationship between religion and sexuality can also lead to discriminatory behavior. For example, Mak and Tsang (2008) showed that people who scored higher on

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religiousness helped targets slightly less when those targets were sexually promiscuous, regardless of the target's sexual orientation. This study demonstrates a link between religion and prejudicial attitudes when sex norms are violated. It also provides another interesting perspective. The discussion surrounding sexual prejudice has almost exclusively revolved around homosexuality. Although same-sex relations defy socially sanctioned norms, Mak and Tsang provide evidence that promiscuity in general can yield prejudicial attitudes. It is critical to understand how religiousness can influence the social censuring of people who violate sexual norms.

Religion and Prejudice

Religion is a central component of everyday life in the United States. According to Gallup polls in 2013, 87% of Americans believe in God. In 2012, 58% of U.S. citizens claimed that religion was a very important aspect of their lives. If religion is seen as a form of social control, how many people is it actually controlling? If religion influences only those who highly endorse it, then the answer is approximately 58% of our population. As mentioned by DeLamater (1981) earlier, however, one way in which social institutions control behavior is by their members punishing individuals who violate the expectations and norms. These individuals may not even be religious themselves, but they are still held to the same standard, and thus face the same sanctions. Cohen (2009) argues that religion is a dimension of our broader culture that impacts how individuals interact with their social environment. These interactions involve the sharing of information, meaning and values that persist to future generations.

Although I have painted a relatively negative picture of religion as it relates to prejudice, it can positively impact human behavior. For instance, religion has been

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central to some of the most powerful social movements in our nation's history, including the Civil Rights Movement of the 1960's. On a personal level, religiousness has been shown to increase both mental (Miller & Kelley, 2005) and physical health (McCullough, Friedman, Enders, & Martin, 2009). In addition, it has been associated with greater levels of optimism (Koenig et al., 2001), coping, and self-esteem (Maynard, Gorsuch, & Bjorck, 2001). Religion can also increase participants' willingness to help others and engage in altruistic behaviors (Norenzayan & Shariff, 2008; Preston, Ritter, & Hernalndez, 2010). It has even been shown to reduce the use of alcohol (Michalak, Trocki, & Bond, 2007). These are just a few of the many ways in which religion can benefit both the individual and the society at large. For the purposes of this study, however, we will be focusing primarily on the more negative outcomes of religious beliefs.

Religion is one of the primary motives behind many acts of terror and violence in the world today. The attack on the World Trade Center by Islamic fundamentalists in 2001 is one of the most catastrophic examples of religious terrorism to date. Consequently, religion has been associated with increased attitudes toward terrorism (Nielsen, 2001) and warfare (Karsh, 2002). On a more interpersonal level, recent works have made a clear link between religion and prejudice (Batson, Schoenrade, & Ventis, 1993; Johnson, Rowatt, & LaBouff, 2010; Johnson et al., 2012; Rowatt, LaBouff, Johnson, Froese, & Tsang, 2009). For example, within Northern American Christianity, church members express more racial prejudice than non-members, and those with traditional, fundamentalist Christian beliefs express more prejudice than those with more progressive beliefs (Altemeyer & Hunsberger, 1992; Batson et al., 1993; Woodberry & Smith, 1998). For the current research, we will focus on the potential relationship

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between religion and prejudicial attitudes, specifically in regard to sexuality.

Prejudiced attitudes tend to stem from a broader theoretical perspective known as intergroup bias. Hewstone, Rubin and Willis (2002) define intergroup bias as the "systematic tendency to evaluate one's own membership group or its members more favorably than a non-membership group or its members." Individuals can express such biases through their actions (discrimination), attitudes (prejudice) or cognitive appraisals (stereotypes). In terms of religion, people may harbor negative feelings toward individuals who identify with a different faith group. They may be less likely to associate with an individual who does not share the same group membership. Even individuals who are considered to be in the same group may face prejudice and discrimination if they violate the expected norms. This phenomenon is commonly called the black sheep effect, in which likable group members are upgraded for positively representing the group as a whole, and deviant members are degraded for threatening the group's reputation. Specifically, highly socialized and established group members most strongly represent the group, and thus receive the most punishment for violating norms and expectations when compared to a new group member, and even an out-group member. Failing to uphold, or disregarding group standards altogether can pave the way for increased deviant behavior in group members who were previously fearful of overstepping such boundaries, and can diminish the group's image as a whole (Pinto et al., 2010). New group members and out-group members, on the other hand, are not expected to know or endorse the expectations, thus evading intense backlash by the group. Although a woman may be a religious individual, she may face negative consequences via other religious individuals (and become the black sheep) if she disregards religious teachings and values

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by engaging in premarital sex with multiple partners.

Since we know religion can have both positive and negative influences on interpersonal attitudes, what predicts who will endorse prejudice and who will endorse compassion? Early research on the relationship between religion and prejudice was studied in the context of individuals' motivation for religious engagement. With extrinsic religiosity, people use their religion for external benefits, such as social support, status, solace, or security. To achieve this, they readily alter their religious experience to fit these primary needs. In other words, extrinsically motivated individuals are *using* their religion; where as the intrinsically motivated are *living* their religion (Allport, 1967). Intrinsic religiosity is much more personal in nature, and religion is highly incorporated into the individual's daily life. Religion itself is ultimately the primary motive. Other needs, for social support or status, are much less significant. In turn, intrinsically religious people tend to identify more closely with the core religious values, such as compassion and forgiveness, and the rigid endorsement of these values leads to more tolerance (Kirkpatrick & Hood, 1990). Allport found, when studying this continuum, that participants high in extrinsic religious beliefs tended to be more intolerant and hold more prejudicial attitudes than individuals with high intrinsic beliefs (Allport, 1967). Extrinsically motivated people will feel more obligated to defend the group, thus being more sensitive to out-group threats, because the group is their primary focus, not the religious beliefs.

The investigation of religiousness has evolved since Allport's early work. Research has moved away from looking at this extrinsic-intrinsic continuum to a more modern theory focusing on the different facets of religiousness. Recent conceptions of

religion and prejudice center on the idea that some individuals harbor more inflexible beliefs than others. This narrow mindset may increase adherence to cultural norms or intergroup bias due to failure to look past one's own rigid ideologies. Some of these rigid ideologies associated with intergroup bias include religious fundamentalism, and right wing authoritarianism.

Altemeyer and Hunsberger (1992) defined religious fundamentalism as: "The belief that there is one set of religious teachings that clearly contains the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity; that this essential truth is fundamentally opposed by forces of evil which must be vigorously fought; that this truth must be followed today according to the fundamental, unchangeable practices of the past; and that those who believe and follow these fundamental teachings have a special relationship with the deity" (Altemeyer & Hunsberger, 1992). Right wing authoritarians, on the other hand, readily submit to the established authority in society. This is a personality trait that can be broken up into three distinct sub-categories, which include submission to authorities, aggression in the name of these authorities, and conventionalism. It is important not to confuse these personality characteristics with political ideologies held by the individual (Altemeyer, 2006). Right wing authoritarians carry their religion from childhood to adulthood, and they report having very little doubt in their religiosity throughout life. Religion is seen as a contributing factor to their increased submission to authority, as well as their hostility toward "outsiders" or "sinners." They tend to enforce stricter rules about what they consider to be proper behavior, thus endorsing more prejudice and double standard ways of thinking toward people who don't act accordingly, or fall outside of their in-group. For example,

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participants high in RWA are more likely to punish a left-wing than a right-wing government for abusing their powers (Altemeyer, 1988).

Johnson, LaBouff, and colleagues (2012) have shown evidence that these different styles explain prejudice towards a variety of groups. Namely, right-wing authoritarianism (RWA; Altemeyer & Hunsberger, 1992) shows a relationship between religion and prejudice towards racial and ethnic groups, while religious fundamentalism (RF; Altemeyer & Hunsberger, 1992) shows a relationship between religion and prejudice towards religious value-violating groups such as lesbians, gay men, and Muslims. Although both exhibit prejudicial attitudes, they tend to target different groups. Right-wing authoritarian concerns revolve around physical threats, and combating individuals who pose them. Fundamentalists, on the other hand, are concerned primarily with moral and value threats. Although sexually promiscuous individuals may not pose a physical threat, right-wing authoritarians still harbor double standard ways of thinking, and are highly punitive toward sinners. If we portray a promiscuous woman (i.e., the deviant "black sheep") in comparison to a chaste woman, it is likely that attitudes will be more warm toward the latter. Because of this, we have decided to include this facet of thinking into our study, to further investigate its effect on people's attitudes. More importantly, however, we believe fundamentalists will recognize the value threat that a promiscuous woman represents, as her sexual activity runs contrary to their rigid beliefs.

Religious Priming

It is clear that religion is a complex, multifaceted component of everyday life that can have a significant impact on how people think, act, and feel about themselves and others. Much of the work discussed thus far has been correlational in nature, finding

relationships exist but failing to provide causal evidence. In order to show that religion is a potential root cause of an individual's attitudes or behaviors, researchers must experimentally manipulate religion. This has been attempted primarily through priming research. Priming is broadly defined as "the temporary activation of an individual's mental representation by the environment and the effect of this activation on various psychological phenomena" (Bargh & Chartrand, 2000, p. 256). This activation often occurs outside of conscious thought in an attempt to measure how responses shift due the spontaneous activation of a specific construct, thus increasing the accessibility and salience of that construct in people's minds. By evoking the cultural representation of religion, we will attempt to temporarily shift participants' worldview to coincide with religious ideologies, which may encourage stricter adherence to sexual norms.

Priming methods in the laboratory are usually presented in one of two ways. Supraliminal priming has the potential for conscious awareness, because presentation of the stimuli used to activate a target construct is more overt. For example, a common method of supraliminal priming is the scrambled sentence task (SST) in which participants are given five words and asked to form a sentence using four of them. In these tasks, 60-80% of the prompts contain words and phrases designed to subtly activate religiousness. For example, to prime religion, sentences like "The cake was *divine*" or "He *crossed* the road" would be used to elicit a more religious mindset (Bargh, Chen & Burrows, 1996). The other commonly used method is subliminal priming, where presentation of the stimuli is consciously undetectable. The Lexical Decision Task is used to prime specific concepts like religion below conscious awareness. Participants are quickly flashed a string of letters and asked to decide whether what they saw was a word

(like table) or a non-word (like hidvum). Before the string of letters appears on the screen, the prime stimulus is presented for 35ms; a flicker containing nearly undetectable content. Some words used to prime Christian religion are Bible, sermon, church, heaven and so on (Johnson et al., 2010).

Priming social categories has been shown to lead to increases in behaviors and attitudes associated with a number of concepts, even if individuals do not belong to the social group (cf. Bargh et al., 1996; Cesario, Plaks, & Higgins, 2006; Kawakami, Dovidio, & Dijksterhuis, 2003; Johnson et al., 2010). For example, when primed with "elderly" concepts (vs. neutral concepts), individuals walked more slowly down a hall. When subliminally primed with African American faces (vs. Caucasian faces), individuals responded with more hostility (a stereotypical behavior of African Americans) toward the provocation of an experimenter (Bargh et al., 1996). The change in hostility seen in response to the African American prime occurred regardless of preexisting racist attitudes, indicating that the priming of social categories is effective on any individual, as long as the individual is aware of the goals, attitudes, and behaviors associated with the primed category (Cesario et al., 2006). It should be noted that priming activates cultural stereotypes, not the reality of such social categories. Although there is a negative stereotype surrounding African Americans and aggression, and racial priming activates that stereotype, this does not suggest that all African Americans are aggressive.

Religion is also a social category, and its activation can produce various outcomes. When religious concepts are made salient via priming methodology, an increase in both racial and value-violating prejudice has been shown (i.e., toward homosexuality, other religions, etc.; Johnson, Rowatt, & LaBouff, 2010; Preston &

Ritter, 2011). The effect of the priming can occur regardless of the participants'

preexisting beliefs regarding the prime. (i.e., preexisting level of religiosity; cf.

Randolph-Seng & Nielsen, 2007). More recent research by Azim Shariff provides

conflicting evidence to this notion in regard to religious priming. A meta-analysis shows

that religious primes are more effective, and results are much more consistent, when

participants have higher levels or religiosity, versus little to none at all (Shariff, Piazza, &

Kramer, in press).

Priming religion can also result in more helping (Pichon, Boccato, & Saroglou,

2007) and other prosocial behavior (Shariff & Norenzyan, 2007). These contradictory

findings are likely due to the fact that there are different ways to represent the construct

of religion in people's minds, producing different outcomes. Namely, priming concepts

of the divine (i.e., God) has been shown to produce more out-group cooperation, whereas

priming words related to the social organization of religion (i.e., Religion) resulted in

more cooperation among in-group members (Preston & Ritter, 2011). Interestingly, new

research presented at the 2014 Society of Personality and Social Psychology conference

suggested that religiousness is associated with prosocial behavior toward in-group

members, but negativity toward out-group members (Rowatt et al., 2014).

If priming has been shown to increase negative attitudes toward value violating

members of society, and to decrease cooperation with out-groups, then activating

organized religion should elicit negative attitudes toward someone whose sexual activity

falls outside of these culturally accepted norms.

Moral Foundations Theory

Although morality exists in the religious world, religion does not have to exist in the moral world. Religion plays an important role in how people construct their moral values, but it is not the only determinant. Investigating morality itself may shed some light on how people will respond to someone who violates cultural sexual norms outside of religious constraints. Morality in general can be defined as the principles concerning the distinction between right and wrong and good and bad behavior. Across cultures, we see a wide variety of moral codes, yet underlying all of them are similar and recurrent themes. The moral foundations theory, developed by Jonathan Haidt and Craig Joseph (2004) is an attempt to categorize those common themes. Their theory proposes the idea of "intuitive ethics," or the idea that humans possess an innate, universal psychological system of morals. This system is used by cultures around the world to construct their rules and regulations for society, which often vary in terms of expression and importance. Relative importance, or endorsement of certain moral foundations, may help predict intergroup attitudes and behaviors.

This theory consists of five different foundations. The first is fairness/reciprocity, which highlights the importance of reciprocal altruism, and people high in this foundation will value honestly, equality and justice. In-group/loyalty revolves around patriotism, and the willingness of individuals to make sacrifices for the wellbeing of the group. People high in in-group loyalty will value things like commitment to the group, and trustworthiness. Authority/respect is the common display of dominance and submission. Dominance can be both protective for the group, in terms of protection and organization, but also oppressive. People high in this foundation will value strong central authority and

obedience to that authority. Harm/care relates to the desire to care for vulnerable

offspring. This becomes vital to the evolutionary success of any species. It requires

kindness and nurturance, and people who endorse this foundation will value such

qualities. Purity/sanctity, the final foundation, seems to be the most applicable to the

investigation of individual attitudes toward sexuality.

Haidt and Joseph (2007) found that unlike the previous foundations, which have

been social in nature, purity/sanctity is instead a nutritive concern. Our species has long

been exposed to threat of bacteria and parasites, which can be spread by physical contact.

This developed into a cognitive and emotional adaption for disgust. For example, humans

have a natural aversion to fecal matter, which is known to carry disease. It seems that the

purity/sanctity concerns tap into moral values that are related to disease avoidance.

We have seen this concept expand to contamination concerns outside of disease as

this moral foundation is also relevant to sexual behavior. A study by Leeuwen and Park

(2013) found that pathogen disgust was not a predictor of purity, but sexual disgust was.

In other words, modern purity concerns are driven less by the idea of disease contraction

and more by the moral values associated with sexual behavior. This promotes the

endorsement of restricting sexuality down to mere necessity for survival, which in turn

generates virtues such as chastity and vices such as lust. Most people universally endorse

moral decisions based on fairness/reciprocity and harm/care as very important, but

loyalty, authority, and sanctity vary drastically from person to person. For this reason, we

suspect that participants with high purity/sanctity concerns will evaluate someone

violating social sexuality norms much more negatively when compared to participants

with low purity sanctity concerns.

Shen and LaBouff (2014) suggest that because religion aids in the creation of moral communities, religiosity will be highly associated with individuals' moral foundations, specifically the group-focused domains (in-group/loyalty, authority/respect and purity/sanctity). They found that general religiousness, and fundamentalisms are highly associated with these group-focused moral concerns, but not the other two moral domains (harm/care and fairness/reciprocity). In addition, they found that right-wing authoritarianism mediates the relationship between general religiousness and the group-focused moral concerns. These data show the association between religiousness and certain moral values. We want to investigate this notion further, and determine whether general religiousness, specific facets of religion, moral principles, or some combination of the three predict social censuring of someone who violates important social values.

Hypotheses

In this study, we investigated how different religious facets, the activation of religious concepts, and moral foundations are associated with more negative attitudes toward an individual who is subtly presented as violating social and moral standards related to sexual activity. To portray this individual, we adapted the impression formation task developed by Solomon Ash (1946, see Williams & Bargh, 2008) to portray a woman who either violates, or conforms to, the sexual norms of society. By subtly manipulating relationship history, we assessed the extent to which revealing such information can alter participants' evaluations across a number of different personal qualities. In all, we investigated the following hypotheses:

1. Participants, regardless of their level of religiosity, would more closely conform to Christian beliefs and judge a sexually value-violating woman more harshly

than her value-conforming counterpart if presented with an unconscious religious prime.

2. As self-reported religiousness, right wing authoritarianism, and religious fundamentalism increased, so would participants' sexual conservatism.

3. As participants' self-reported levels of religious fundamentalism and right wing authoritarianism increased, so would their negative rating of the value-violating female.

4. Participants high in the purity/sanctity subsection of the moral foundations questionnaire would rate the value-violating version of the hypothetical woman more negatively than the value-conforming version.

Methods

Participants and Recruitment

A total of 196 participants (42% male, mean age 19.73) were recruited from the University of Maine psychology participant pool. More than 90% of the sample identified as Caucasian, heterosexual and non-married. About half of the participants (49.23%) said they believed in God, while 22.05% did not, and the remaining participants (27.7%) were uncertain. More than half of our sample identified as Christian, with a relatively even split between Catholics (28.7%) and Protestants (26.7%), followed by no religious affiliation (36.4%). Politically, our sample was slightly liberal (M = 4.08, SD = 1.18; 1=extremely conservative, 7= extremely liberal).

Materials and Procedure

Participants volunteered to complete the study using Sona-Systems[1], the online database used by the University of Maine to recruit participants from the psychology subject pool. Upon their decision to participate, participants were automatically directed to a page displaying an external link to the study, coupled with a brief description. This description informed participants about what they would be asked to do, and that they must complete the survey in one sitting. In order to receive full credit through Sona-systems, participants had to reach the end page of the survey, which debriefed them about the nature of the research. In addition, we notified participants that they must be operating from a windows-based computer in order to access the initial word game task (Please see Appendix A).

Clicking the survey link would redirect participants to the study powered by Qualtrics, a web-based survey software used by the University of Maine. Participants were provided first with the informed consent. (Please see Appendix B.) They could not proceed to the experiment unless they agreed to participate. The following page displayed a link to what participants believed to be an online word game. This word game was actually the Lexical Decision Task (LDT), our method for priming religion. Participants were instructed that a string of letters would appear on the screen, and that they must decide whether the letter string was a word (e.g., shirt, butter, switch) or a nonword (e.g., tureb, gribe, bift), and to press a "word" key (in this case the A key) or a "nonword" key (5) to indicate their lexical decision (see Wittenbrink, Judd, & Park, 1997). Their time and accuracy in this task was recorded. Before making their lexical decision, participants

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[1] Sona-systems website: (https://umaine.sona-systems.com/default.aspx)

were subliminally primed (or flashed) with either religious or neutral words at the nearly undetectable speed of 35 milliseconds.

Participants completed five blocks with 16 trials each (i.e., 80 trials). In each trial, participants saw a fixation point (+) first for 1 second, followed by a premask which consisted of a string of X's (i.e. XXXXXXXXX) for 70 ms. The prime was presented directly after the premask for 35 ms, followed by a postmask (XXXXXXXXX) for another 70 ms (see Dijksterhuis, Preston, Wegner, & Aarts, 2008). Immediately after the masks and prime, participants focused on a blank screen for 395 ms at which point a string of letters appeared. At this point, participants quickly decided if that letter string was a word or nonword, indicating their lexical decision.

Participants were randomly assigned to either the religious or neutral prime condition. The following words were used to prime Christian religious concepts: Bible, faith, Christ, church, gospel, heaven, Jesus, Messiah, prayer, and sermon (Wenger, 2003). Words such as shirt, butter, switch, hammer (Pichon et al., 2007) were used for the neutral prime condition. The end page of the LDT provided a completion code. Participants had to submit this code into the survey in order to continue on with the next portion of the experiment. This ensured completion of the prime task, and allowed us to identify which prime condition they received.

The next portion of the study was the online survey. Participants were first given an impression formation task, and asked to rate a hypothetical person. Adapted from the classic impression formation studies of Solomon Asch (1946, see Williams & Bargh, 2008), participants were given a brief description of "Amber" who was described as either having one or multiple partners in the past year. The single partner version read as

follows: "Meet Amber. Amber is a senior at the University of Maine. She lives off

campus in an apartment with her friends and has been steadily dating her boyfriend now

for the past year. Amber is described by her friends as intelligent, skillful, industrious,

determined, practical, and cautious." The description of the multiple partner Amber is

identical, aside from the sentence pertaining to her relationship status. Instead of steadily

dating her boyfriend for the past year, it says she "has been in intimate relationships with

several different guys during the past year." We intentionally disclosed Amber's sexual

activity in a rather subtle manner. The information we provided about Amber is often

available to acquaintances. For instance, we often know through disclosure or from

peers, whether someone has been in a relationship with one or several partners recently.

This subtle disclosure was intended to increases ecological validity, while also making

sure the purpose of the study was not too overt.

After reading this, participants were given a thermometer item to indicate how

warm (100%) or cold (0%) they felt toward Amber. We then asked participants to rate

Amber on a variety of personal characteristics, including generosity, popularity, and

religiosity. This was a 15-item measure, given in a 7-point Likert type scale. Lastly, a

measure of intergroup closeness was provided to investigate the degree to which

participants were willing to associate with Amber. On a 5-point rating scale, participants

stated whether they would agree or disagree to be at the same university as Amber, or to

be friends with her, etc., while each item increased in closeness. This is a short, 7-item

scale. (Please see Appendix C for all measures.)

Sexuality. We then provided participants with three measures of sexuality. The

Sexual Opinion Survey (SOS; Fisher, et al., 1988) is a 13-item measure scored on a

single dimension of erotophilia/erotophobia – with those on the erotophobic end of the distribution reporting less comfort with sexuality. Erotophobia items include statements like "Erotica (sexually explicit books, movies, etc.) is obviously filthy and people should not try to describe it as anything else." where as erotophilia items state "Masturbation can be an exciting experience." Participants were asked to indicate to what extent they agree or disagree with statement such as these on a 7-point rating scale.

Next, they completed the Brief Sexual Attitudes Scale (Hendrick, Hendrick, & Reich 2006), a 10-item measure using a more modern construction of erotic attitudes in an attempt to check the validity of the somewhat dated Fisher et al. (1988) SOS. It includes statements such as "It is not necessary to be committed to a person to have sex with him/her" and is presented in a 5-point Likert scale. Lastly, the Attitude Toward Sexuality scale (Fisher, et al., 1988) was presented as another, more modern measure of sexual attitudes. It deals with three major factors regarding sexuality; legality/morality, alternative modes of sexual expression, and individual rights. It has received positive feedback for its more simplistic vocabulary and less embarrassing items, especially for adolescents (Fisher & Hall, 1988).

Religiousness/Spirituality. We used a single item measure to assess belief in God, asking simply if the participants believed in God (yes, no, uncertain). Next, we asked them to report their primary religious affiliation, and they were given several options to chose from, including no religion, Catholic, Protestant, Orthodox, Jewish, Muslim, Hindu, Buddhist or other (giving participants a text box to fill in their answer). Next, we asked whether they were interested in religion, how important their religion was to them, to what extent they consider themselves to be a religious person, and to what extent they

consider themselves to be a spiritual person. Answers ranged from a 1 (*not at all*) to a 7 (*very much*).

Religious Rigidity. Further, we measured participants' level of Right-Wing Authoritarianism (RWA) using Smith and Winter's (2002) 10-item measure. This is used to assess willingness to submit to authorities, use aggression in the name of such authorities, and endorse conventionalism. Statements like "What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path" are given on a 9-point rating scale. In addition we included the Religious Fundamentalism scale (RF; Altemeyer & Hunsberger, 2004). This scale has been found to have very strong correlations with Right-Wing Authoritarianism, but unlike measures of general religiousness, it assesses the rigidity of participants' religious beliefs. The items ask to what extent they agree with statements such as "There is a particular set of religious teachings in this world that are so true, you can't go any "deeper" because they are the basic, bedrock message that God has given humanity" across a 9-point scale. (Altemeyer & Hunsberger, 2004).

Moral Foundations. The Moral Foundation Scale was used to assess participants' moral thinking. Several researchers theorize a relationship between moral foundations, moral judgments, and religious activation (e.g., Graham, Haidt & Nosek, 2008) but no empirical data have been collected to examine this relationship. The scale is broken down into five subsections, or moral domains, which include harm/care, fairness/reciprocity, in-group/loyalty, authority/respect and purity/sanctity. Harm/care is measured by asking participants whether they agree or disagree with statements such as "One of the worst things a person could do is hurt a defenseless animal." The Fairness/reciprocity domain

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contains statements like "Justice is the most important requirement for a society." In-group/loyalty is measured using statements such as "People should be loyal to their family members, even when they have done something wrong." An example of authority/respect includes "Respect for authority is something all children need to learn." The final domain assessed concerns for purity/sanctity by using statements such as "People should not do things that are disgusting, even if no one is harmed." Participants were asked to indicate whether they agree or disagree with such statements. These indications were made on a 7-point scale.

Demographics. The last section of the survey asked participants to provide some demographic information. We asked for their relationship status, gender, and their age (in years). They were then asked how many sexual partners they have had throughout their life, the racial/ethnic group they most closely identify with, as well as their sexual orientation. The last item asked for their political affiliation, ranging from very strongly conservative to very strongly liberal on a 7-point scale. After completing the survey, participants were debriefed (please see Appendix D for debriefing script).

Results

Overall, participants expressed relatively warm attitudes towards Amber ($M = 8.19$, $SD = 1.73$) regardless of her perceived sexual activity. Further, participants expressed slightly higher levels of erotophobia ($M = 48.58$, $SD = 19.84$; 0 = erotophobic, 126 = erotophilic), and sexual conservatism ($M = 3.21$, $SD = .83$) but were more liberal concerning political issues regarding sexuality, including birth control and abortion (M = 48.93, $SD = 9.03$; 13 = conservative, 65 = liberal) Participants reported low levels of fundamentalism ($M = 3.73$, $SD = 1.83$) and were around the midpoint for

authoritarianism (*M*=4.35, *SD*= 1.52). Please see Table 1 for correlations, descriptives, and scale reliabilities.

Many of the observed associations were consistent with our hypotheses. First, the three measures of sexuality were highly correlated, suggesting that they were measuring the same family of constructs. Second, self-reported religiosity, fundamentalism and authoritarianism were all highly inter-correlated. In addition, higher levels of religiosity, fundamentalism, authoritarianism, and purity/sanctity were associated with more conservative sexual attitudes and erotophobia (*rs* from .15 to .64, all *ps* < .05; See Table 1). Contrary to our predictions, we found that none of the sexuality or religious/morality items were significantly correlated with impressions of multiple partner Amber. Only the participants' self-reported number of sexual partners was positively associated with ratings of the multiple partner Amber.

We first examined mean differences in impressions of Amber based on her relationship history. T-tests revealed that participants were colder toward the multiple partner Amber (*M* = 7.83, *SD* = 1.68) than the single partner Amber (*M* = 8.57, *SD* = 1.72), *t*(192) = 3.04, *p* =.003. The multiple partner version was also rated significantly more negatively on almost all personal characteristics provided. For example, she was less happy, loyal, intelligent, and reliable (see Figure 1).

In addition, participants wanted more social distance from the multiple partner Amber. Although they recognized that they are likely to attend the same university as Amber, *t*(194)= .68 *p*=.50, they were uninterested in more elective relationships with her, such as getting to know her better, *t*(193)= 2.80 *p*=.006, or having her as a friend *t*(193)= 2.33, *p*=.021 (see Figure 2).

T-tests were also used to examine the effect of the prime. We found that negative impressions of the multiple partner Amber still persisted even though the Christian prime did not have a significant effect on participants' evaluations ($M = 8.27$, $SD = 1.73$) when compared to the control prime ($M=7.96$, $SD=1.75$) $t(192)= -1.07$ $p=$ n.s. In addition, there was no interaction between the prime and the version of Amber $F (1,190) = .327$ $p=$n.s.

A hierarchical regression revealed that purity/sanctity moderated the relationship between version of Amber and impression formed. In the first step, version of Amber was entered alone and was a significant predictor of impressions (std $\beta = -.208$, $p = .005$). In the second step, purity/sanctity was entered and was not a significant predictor of impressions of Amber (std $\beta = .040$, $p = .507$). Lastly, when entering these two variables together, we found that the interaction between them was significant (std $\beta = -.146$, $p = .046$), such that participants who received the multiple partner version of Amber, and who reported higher purity sanctity scores, were more negative in their evaluation of Amber (see Figure 3).

We next wanted to examine if participant gender was a moderator in the evaluation of Amber. A 2 x 2 (Amber version vs. Gender) analysis of variance revealed a main effect for version of Amber $F (1,190) = 6.38$ $p = .012$, where females ($M=7.81$, $SD=1.76$) and males ($M=7.84$, $SD=1.60$) in the multiple partner condition rated Amber the same, females in the single partner version were much more rewarding of her perceived chastity ($M=8.93$, $SD=1.63$) than males ($M=7.97$, $SD=1.79$) (see Figure 4).

We investigated this finding further to see how gender affected ratings of a specific quality of Amber. We chose to look at intelligence because both descriptions of

Amber explicitly stated that her friends described her as intelligent. A 2x2 (Amber version x Gender) analysis of variance revealed a main effect for version of Amber F $(1,190) = 4,59$ $p = .033$, and for gender $F(1,190) = 4.0$ $p = .047$, but these who variables did not significantly interact. This shows that the participants, regardless of gender, rated the multiple partner Amber as less intelligent, and that males overall rated Amber as less intelligent than females (see Figure 5).

Discussion

Consistent with our original hypothesis, self-reported levels of religiosity, religious fundamentalism, and right-wing authoritarianism are associated with more conservative attitudes toward sexuality. That is to say, that there is a positive relationship between religiosity and conservative sexual attitudes. Surprisingly, this relationship did not influence how our hypothetical character was evaluated. The multiple-partner Amber was rated more negatively than her single-partner counterpart, regardless of participants' preexisting levels of religiosity and sexual conservatism. In other words, participants who held liberal sexual attitudes, and were more erotophilic, still rated the multiple partner version of Amber more harshly than the single partner version. In addition, participants' own number of sex partners did not influence ratings of Amber. Someone who had reported having numerous sexual partners themselves would still penalize Amber for her perceived promiscuity. This suggests that participants hold these conservative attitudes toward sex, and endorse them when evaluating others, but do not necessarily hold themselves to the same standards. This finding is consistent with work on moral hypocrisy, which can be defined as "publicly upholding moral norms, especially for others to follow, but personally violating them in private" (Monin & Merritt, 2010). This

was a surprising, but important discovery that we had not previously thought of, and it brings us one step closer to understanding why participants may have been more harsh toward Amber when she had multiple partners.

This is quite contrary to what we expected to find. Literature on the relationship between sexual norm violation and different facets of religion seem to suggest that rigid religious ideologies drive negative attitudes and sanctions toward such violators. We expected to see a negative correlation between religiosity, namely fundamentalism, and ratings of Amber. Fundamentalism has been associated with prejudice toward value violating groups such as homosexuals and Muslims (Altemeyer & Hunsberger, 1992). Mak and Tsang (2008) found that participants helped sexually promiscuous individuals slightly less, regardless of their sexual orientation. One can draw the conclusion that sexual promiscuity is not only a value violation, but also may lead to more prejudiced attitudes than an individual's sexual orientation. We, in turn, predicted that increased levels of fundamentalism would lead to more prejudiced attitudes toward an individual with multiple partners. Instead, there was no significant relationship between the two. It is possible that this relationship was not detected because we had very few fundamentalists in our sample. Future studies may want to specifically recruit fundamentalists to see if that predicted relationship does in fact exist.

Right-wing authoritarians, more than fundamentalists, harbor increased prejudiced attitudes toward individuals who pose a security threat, versus a value violating threat. Evolutionarily speaking, women who engage in casual sex with multiple partners could represent a security threat to males, who have a high degree of paternal uncertainty (Buss & Schmitt, 1993). Males do not want to spend their time and resources

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caring for and raising a child that does not share any of their genes. The only solution to this dilemma is to be absolutely certain that the male's partner has been sexually faithful. As a result, restricting women's sexuality becomes increasingly important to men's security, leading them to learn to hold prejudicial attitudes toward females who threaten that security by sleeping with multiple partners. This theory suggests to us that possibly males, high in authoritarianism, would rate our hypothetical Amber more harshly. Contrary to our hypothesis, males were not any colder toward Amber on the thermometer scale then females. Furthermore, RWA, as well as religious fundamentalism, did not have an effect on how participants rated the value-violating Amber.

Our lack of evidence for this relationship suggests that there may be a more powerful motivator behind these critical evaluations. Information on Amber's perceived sexual activity alone elicited an impression powerful enough to overshadow preexisting levels of religiosity and sexual conservatism. The mere violation of gender sex norms was enough to evoke a more critical interpretation of Amber. It may be that these religiously consistent cognitive styles are not driving the effect, because participants are instead relying more heavily on their specific moral concerns, and our results support this idea.

What did appear to be driving the negative evaluation of the multiple partner Amber was endorsement of purity/sanctity concerns. Participants high in purity/sanctity concerns rated the single partner Amber much more positively than participants with lower scores in the same category. Ratings of the multiple partner version Amber were relatively similar across both high and low purity/sanctity scores. In other words, they were rewarding her moral behavior instead of punishing her immoral behavior.

The moral concern for purity is based on the notion of disgust. Casual sex is seen as diminishing one's purity, and is culturally associated with the transmission of disease. Women, being seen as the "gate keepers of sex" are expected to maintain this sense of purity and refrain from such activities (i.e., casual sex with multiple partners). It is only fitting that individuals who have high purity/sanctity concerns would reward a woman who appears to be acting in accordance with their own values. What is interesting, however, is that this foundation had such high overlap with traditional religious beliefs, yet we did not see religion playing a significant role in the rating of Amber. Maybe these moral concerns are innate within us regardless of our religious affiliation, but our religious communities reinforce virtues such as purity and sexual chastity, thereby strengthening this specific moral domain.

In addition to moral concern, gender moderated the relationship between Amber's sexual history and the impression formed. In terms of warmth toward Amber, there was a significant interaction between the version of Amber and the gender of the participant. Although males and females equally disliked the multiple partner Amber, women rated her much more positively when she had only one partner, whereas males rated the single partner only slightly more positively than the multiple partner version. Often times, because we live in a patriarchal system, we assume that men dictate and uphold the sexual double standard for their evolutionary advantage, but our results show otherwise. Consistent with Milhausen and Harold (1999) we found that women were harsher to judge other women in terms of their sexual activity. Evolutionarily speaking, this makes sense. A woman who is trying to win over a potential mate may want to increase her own status by degrading a fellow woman who potentially threatens her ability to win him

over. Thus, she may try to convince this potential mate that his paternal uncertainty would increase if he settled down with a "promiscuous" woman like the one portrayed in our study, in order to promote her own cause.

Originally, we thought we would see the "black sheep" phenomena occurring, but after interpreting the data, it seems that a sort of "golden sheep effect" is taking place instead. Women are not necessarily punishing the multiple partner Amber, for they are still giving her a relatively positive ratings. We cannot thus conclude that women are intentionally punishing the "bad" in-group member as we had predicted. Instead, they seem to be putting the single partner Amber up on a pedestal and idealized her for adhering to socio-sexual norms. We did not find men rewarding Amber in this same condition, however, and it could be that men no longer see themselves as having a chance with the Amber that we described as having a boyfriend, thus do not rate her any more positively.

As you can see, we found a similar sort of result for moral foundations as we did for gender. However, it was primarily women, not men, who had high purity sanctity concerns. This makes it difficult to distinguish whether it is actually participants' gender (females), or moral concerns (purity/sanctity), that is driving the effect.

The finding regarding perceptions of Amber's intelligence was also interesting. Even though we explicitly told participants in both versions that Amber was thought by her friends to be intelligent, both males and females rated her as being less intelligent when she was described as having multiple partners. In addition, men found Amber overall less intelligent than women. Men are stereotypically viewed as being more intelligent than women, and men seem to endorse this stereotype.

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Although the prime produced a null effect on participants' ratings of Amber, this finding still has important implications. First, there is the possibility that activated religiousness simply does not influence these kinds of evaluations of sexual behavior. In addition, some research indicates that priming is not as reliable as previously thought. Religious priming has been shown to work well for participants who already have moderate to high levels of religiosity, and results are less consistent as these levels decrease (Shariff, 2014). Another possible limitation is the fact we conducted the study online. Although this approach allowed us to recruit a large sample size, the online nature limited our ability to control the participants' environment. If participants did not give their undivided attention to the LDT, or if they failed to complete the survey directly after finishing the prime, then the prime likely did not produce increased salience of religious concepts. In order to better examine the effect of the prime, we would need to conduct the experiment in a laboratory setting to see if increased environmental control makes a difference. Substantial evidence exists to suggest that priming effects are difficult to replicate, and this cannot be ignored or disregarded by researchers. It is important to look critically at priming methodology, and call into question its reliability as we continue onward in this field of research.

Limitations. Although our research provided compelling evidence for how impressions of others may change based on minimal information regarding one's sexual behavior, this study had important limitations. We had a very young sample; the mean age was only 19 years old. It is likely that this young generation of college students will hold more liberal attitudes. To provide further generalizability, future researchers would want to test a more nationally representative sample.

We also had disproportionate cell sizes. Although our experimental condition (Christian prime) had 147 participants, our control condition (neutral prime) was slim, containing only 49 participants. This may make a statistical difference difficult to detect, because the unequal cell sizes violate the assumptions of the statistical tests used to analyze the data. It is important for future research to even out these two cell sizes in order to accurately portray the effect of the prime.

As mentioned previously, we also lost a great deal of control by conducting the survey online instead of in the lab. A few of our participants experienced difficulty accessing the initial word game, which could have been avoided in a more controlled environment. We were also unable to monitor participants' environment while engaging in the priming task, and any sort of distractions would have interrupted the potential effects. Recruiting participants into the lab would help to ensure that the prime is being delivered properly, and would ensure participants continued on with the survey immediately after. We would have also been able to quickly and efficiently answer any questions and fix any problems.

Future Directions and Concluding Remarks. In the future, researchers should investigate whether the same evaluations are made if the hypothetical character is a male. Prior studies suggest that men experience more sexual freedom and gain status when they engage in casual sex with multiple partners. Women, on the other hand, run the risk of ruining their reputation among others, especially other women, if they engage in the same activity. Our study indicates that when we reveal ambiguous information about a woman's relationship history, it can diminish her reputation. It would be interesting to see, when given with the same sort of information, if a man's reputation would instead

elevate, which would indicate that the sexual double standard still influences the attitudes people hold. Society may blame women more than men because of this preconceived notion that women are the sexual gatekeepers. Controlling sexual behavior thus becomes the woman's responsibility due to her ability to dictate how far sexual encounters will proceed. The evolutionary perspective may help us to understand why women derive this responsibility. Men are portrayed as being programmed to want casual sex with multiple partners in order to increase their reproductive potential. Men are allowed to "sow their wild oats" while women should focus their time and energy on finding a man who is both evolutionarily fit and willing to sacrifice his reproductive potential in order to raise the offspring. These evolutionary social norms are maintained in modern society when people reward behaviors congruent with this idea and punish those who violate it. I would predict that, because a man is not violating this norm, he would not be judged harshly, but instead rewarded for trying to increase his reproductive potential.

Finally, understanding how people evaluate others based solely on their perceived sexual activity could shed light on some critical issues. For example, knowing that a woman's sexual history can alter how people feel toward her is crucial when dealing with assault investigations. Being aware of this fact, we can work toward ensuring that a woman's sexual history will not alter how sexual assault cases are dealt with. Interpersonal relationships between women may also be improved if we can begin to understand why we are so critical of one another. We need to be aware of our ability to quickly formulate impressions based on limited information, and fight the urge to negatively evaluate someone before we truly get to know them.

Ultimately, our culture needs to reshape its view of women's sexuality. Maybe

instead of viewing women as sex objects, we should portray their value regardless of their physical appearance. Perhaps instead of passing around a peppermint patty as a part of our sex education curriculum, we should pass around a condom. If society tells women to be sexy, and fails to properly educate them, then this same society cannot in turn blame them for their so-called moral "flaws." In order to overcome these conflicting standards, we need to reevaluate the messages we are sending to our young generation of developing women, and establish a culture of equality and respect.

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Appendix A- Study Details

If you decide to participate, you will be asked to play a game where you decide, as quickly as you can, whether a string of letters (e.g., 'groxnab') is a word, or not a word. You will then be asked to fill out a survey about some hypothetical people, and your personal attitudes and beliefs about sexuality (e.g., "I am not curious about explicit erotica [sexually explicit books, movies, etc.]) as well as some demographic items. This should take approximately 35-45 minutes. IMPORTANT NOTES! -Windows-based PC REQUIRED. -You must complete this study in a SINGLE SESSION -PLEASE NOTE STUDY DEADLINE - You must reach the finish page of the survey by this date and time to receive credit.

Appendix B- Informed Consent

You are invited to participate in a research project being conducted by Abby Szotkowski and Dr. Jordan LaBouff in the Department of Psychology at the University of Maine. The purpose of this study is to investigate attitudes about sexuality. You must be 18 or older to participate

What Will You Be Asked To Do?
If you decide to participate, you will be asked to play a game where you decide, as quickly as you can, whether a string of letters (e.g., 'groxnab') is a word, or not a word. You will then be asked to fill out a survey about some hypothetical people, and your personal attitudes and beliefs about sexuality (e.g., "I am not curious about explicit erotica [sexually explicit books, movies, etc.]) as well as some demographic items. This should take approximately 35-45 minutes.

Risks
There is the possibility that you may feel uncomfortable or experience negative emotions when answering some of the questions. You may skip any items or terminate participation at any time.

Benefits
While there are no direct benefits to you from participating in this study, your participation will help enhance our understanding of the ways people think about sexuality.

Compensation
You will receive one hour of research credit as compensation for your participation in this experiment.

Voluntary
Participation is voluntary. You may skip any questions or terminate participation at any time. You will still 48eceive credit for early termination.

Confidentiality
Identifying information will not be recorded. Your anonymous responses will be entered into a data analysis program and those data will be analyzed and reported anonymously. Raw data will be kept indefinitely in a locked laboratory or office on a password protected computer.

Contact Information
If you have any questions about the study, please feel free to contact Jordan LaBouff (Jordan.LaBouff@umit.maine.edu). Additionally, if you have any questions about your rights as a research participant, please contact Gayle Jones, Assistant to the University of Maine's Protection of Human Subjects Review Board, at 207-581-1498 (or e-mail gayle.jones@umit.maine.edu).

Please hit I agree to participate below if you are willing to continue with the study. If not, please hit the I do not wish to participate button and you may exit the survey.
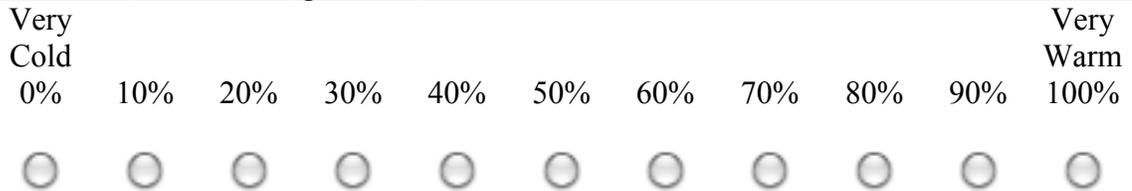
- ⬤ I agree to participate
- ⬤ I do not wish to participate

Impression formation:

For the following questions, read the brief sentences below that describe a particular person. Read them carefully and try to form an impression of the kind of person described. Research has shown that people are very good at forming impressions of other based on very limited information. Try to hold this impression in your mind as you will be asked to give a brief characterization of the person.
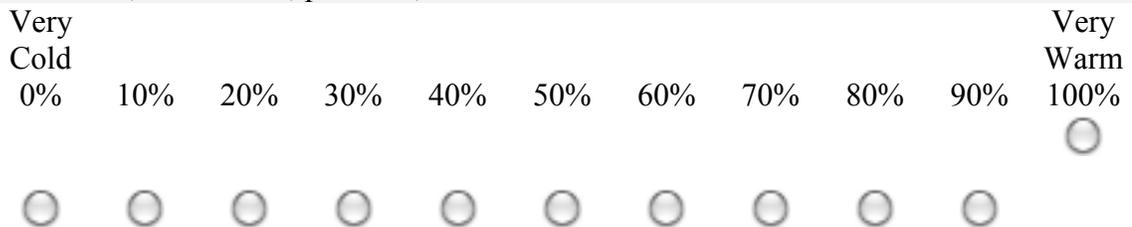
Meet Amber. Amber is a senior at the University of Maine. She lives off campus in an apartment with her friends and has been in intimate relationships with several different guys during the past year. Amber is described by her friends as intelligent, skillful, industrious, determined, practical, and cautious.

Very Cold										Very Warm
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
○	○	○	○	○	○	○	○	○	○	○

OR

For the following questions, read the brief sentences below that describe a particular person. Read them carefully and try to form an impression of the kind of person described. Research has shown that people are very good at forming impressions of other based on very limited information. Try to hold this impression in your mind as you will be asked to give a brief characterization of the person.

Meet Amber. Amber is a senior at the University of Maine. She lives off campus in an apartment with her friends and has been in intimate relationships with several different guys during the past year. Amber is described by her friends as intelligent, skillful, industrious, determined, practical, and cautious.

Very Cold										Very Warm
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
										○
○	○	○	○	○	○	○	○	○	○	

To which extent do you agree or disagree that the terms listen below apply to the impression you have made of Amber (For example, do you agree or disagree that Amber is a generous person).

1 2 3 4 5 6 7

Strongly Agree   Strongly Disagree

1. Generous
2. Popular
3. Insignificant
4. Religious
5. Good-looking
6. Does not use harsh language
7. Unhappy
8. Loyal
9. Weak
10. Intelligent
11. Unreliable
12. Affectionate
13. Conventional
14. Dishonest
15. Humble
16. Self-centered

Attitude Toward Sexuality Scale

For each of the following statements, please choose which response best reflects your reaction to the statement.

1 2 3 4 5

Strongly Agree   Strongly Disagree

___1. Nudist camps should be made completely illegal.

___2. Abortion should be made available whenever a woman feels it would be the best

decision.

___3. Information and advice about contraception (birth control) should be given to any

individual who intends to have intercourse.

___4.Parents should be informed if their children under the age of eighteen have visited a

clinic to obtain a contraceptive device.

___5. Our government should try harder to prevent the distribution of pornography.

___6. Prostitution should be legalized.

___7. Petting (a stimulating caress of any or all parts of the body) is immoral behavior unless the couple is married.

___8. Premarital sexual intercourse for young people is unacceptable to me.

___9. Sexual intercourse for unmarried young people is acceptable without affection existing if both partners agree.

___10. Sexual intercourse for unmarried young people is acceptable without affection existing if both partners agree.

___11. A person who catches a sexually transmitted disease is probably getting exactly what he/she deserves.

___12. A person's sexual behavior is his/her own business, and nobody should make value judgements about it.

___13. Sexual intercourse should only occur between two people who are married to each other.

Inter Group Closeness

Please indicate to which extent you agree or disagree to the following items in regard to Amber.

<div align="center">1 2 3 4 5</div>

Strongly Agree   Strongly Disagree

_____ 1. Be at the same university
_____ 2. Be in the same classroom
_____ 3. Be in the same dormitory
_____ 4. Get to know her better
_____ 5. Have her as a friend
_____ 6. Have her as a roommate
_____ 7. Introduce her to your friends

The Sexual Opinion Survey

Please respond to each item as honestly as you can. There are no right or wrong answers, and your answers will be completely confidential. (After each item, the following response scale appears: I strongly agree :_: _ : _ :_: _ :_: _: I strongly disagree).

1. I think it would be very entertaining to look at erotica (sexually explicit books, movies, etc.).

2. Erotica (sexually explicit books, movies, etc.) is obviously filthy and people should not try to describe it as anything else.

3. Swimming in the nude with a member of the opposite sex would be an exciting experience.

4. Masturbation can be an exciting experience.

5. If I found out that a close friend of mine was a homosexual, it would annoy me.

6. If people thought I was interested in oral sex, I would be embarrassed.

7. Engaging in group sex is an entertaining idea.

8. I personally find that thinking about engaging in sexual intercourse is arousing.

9. Seeing an erotic (sexually explicit) movie would be sexually arousing

10. Thoughts that I may have homosexual tendencies would not worry me at all.

11. The idea of my being physically attracted to members of the same sex is not depressing.

12. Almost all erotic (sexually explicit) material is nauseating.

13. It would be emotionally upsetting to me to see someone exposing themselves publicly.

14. Watching a stripper of the opposite sex would not be very exciting.

15. I would not enjoy seeing an erotic (sexually explicit) movie.

16. When I think about seeing pictures showing someone of the same sex as myself masturbating, it nauseates me.

17. The thought of engaging in unusual sex practices is highly arousing.

18. Manipulating my genitals would probably be an arousing experience.

19. I do not enjoy daydreaming about sexual matters.

20. I am not curious about explicit erotica (sexually explicit books, movies, etc.)

21. The thought of having long-term sexual relations with more than one sex partner is not disgusting to me

Sexuality Related Items (5-point Likert Scale; agree-disagree)

1. ___   It is not necessary to be committed to a person to have sex with him/her.

2. ___   Casual sex is acceptable.

3. ___   People desire to have sex with many partners.

4. ___   One-night stands are sometimes very enjoyable.

5. ___   It is okay to have ongoing sexual relationships with more than one person at a time.

6. ___   Sex as a simple exchange of favors is okay if both people agree to it.

7. ___   The best sex is with no strings attached.

8. ___   Life would have fewer problems if people could have sex more freely.

9. ___   It is possible to enjoy sex with a person and not like that person very much.

10. ___ It is okay for sex to be just good physical release.

Religion items

Do you believe in God?

Yes

No

Uncertain

What is your primary religious affiliation?

    Protestant (Denomination: _____)

    Catholic

    Buddhist

    Hindu

    Jewish

    Muslim

    Other _____

    None

I am interested in religion

My religion is important to me

I am a RELIGIOUS person

I am a SPIRITUAL person

<u>Right Wing Authoritarianism</u>

1   2   3   4   5   6   7   8   9
Strongly   Strongly
Disagree   Agree

_____ 1. What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path

_____ 2. It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubts in people's minds.

_____ 3. Gays and lesbians are just as healthy and moral as anybody else.

_____ 4. There are many radical, immoral people in our country today, who are trying to ruin it for their godless purposes, whom the authorities should put out of action.

_____ 5. It's better to have trashy magazines and radical pamphlets in our communities than to let the government have the power to censor them.

_____ 6. Everyone should have their own lifestyle, religious beliefs, and sexual preferences, even if it makes them different from everyone else.

_____ 7. Once our government leaders give us the "go-ahead," it will be the duty of every patriotic citizen to help stomp out the rot that is poisoning our country from within.

_____ 8. What our country needs most is discipline, with everyone following our leader in unity.

_____ 9. People should pay less attention to the Bible and other old traditional forms of religious guidance and instead develop their own personal standards of what is moral and immoral.

_____ 10. There is nothing wrong with premarital sexual intercourse.

Religious Fundamentalism

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
Very Strongly
Disagree

Very Strongly
Agree

_____ 1. God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed.
_____ 2. No single book of religious teachings contains all the intrinsic, fundamental truths about life.
_____ 3. The basic cause of evil in this world is Satan, who is still constantly and ferociously fighting against God.
_____ 4. It is more important to be a good person than to believe in God and the right religion.
_____ 5. There is a particular set of religious teachings in this world that are so true, you can't go any "deeper" because they are the basic, bedrock message that God has given humanity.
_____ 6. When you get right down to it, there are basically only two kinds of people in the world: the Righteous, who will be rewarded by God, and the rest, who will not.
_____ 7. Scriptures may contain general truths, but they should not be considered completely, literally true from beginning to end.
_____ 8. To lead the best, most meaningful life, one must belong to the one, fundamentally true religion.
_____ 9. "Satan" is just the name people give to their own bad impulses. There really is no such thing as a diabolical "Prince of Darkness" who tempts us.

_____ 10. Whenever science and sacred scripture conflict, science is probably right.
_____ 11. The fundamentals of God's religion should never be tampered with, or compromised with others' beliefs.
_____ 12. All of the religions in the world have flaws and wrong teachings. There is no perfectly true, right religion.

Moral Foundations Questionnaire

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
   [1] = not very relevant
     [2] = slightly relevant
        [3] = somewhat relevant
          [4] = very relevant
            [5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

_____ Whether or not someone suffered emotionally

_____ Whether or not some people were treated differently than others

_____ Whether or not someone's action showed love for his or her country

_____ Whether or not someone showed a lack of respect for authority

_____ Whether or not someone violated standards of purity and decency

_____ Whether or not someone was good at math

_____ Whether or not someone cared for someone weak or vulnerable

_____ Whether or not someone acted unfairly

_____ Whether or not someone did something to betray his or her group

_____ Whether or not someone conformed to the traditions of society

_____ Whether or not someone did something disgusting

_____ Whether or not someone was cruel

_____ Whether or not someone was denied his or her rights

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_____Whether or not someone showed a lack of loyalty

_____Whether or not an action caused chaos or disorder

_____Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement:
    [0]   [1]   [2]   [3]   [4]   [5]
_____Compassion for those who are suffering is the most crucial virtue.

_____When the government makes laws, the number one principle should be ensuring
        that everyone is treated fairly.

_____I am proud of my country's history.

_____Respect for authority is something all children need to learn.

_____People should not do things that are disgusting, even if no one is harmed.

_____It is better to do good than to do bad.

_____One of the worst things a person could do is hurt a defenseless animal.

_____Justice is the most important requirement for a society.

_____People should be loyal to their family members, even when they have done

        something wrong.

_____Men and women each have different roles to play in society.

_____I would call some acts wrong on the grounds that they are unnatural.

_____It can never be right to kill a human being.

_____ I think it's morally wrong that rich children inherit a lot of money while poor

        children inherit nothing.

_____ It is more important to be a team player than to express oneself.

_____ If I were a soldier and disagreed with my commanding officer's orders, I would
        obey anyway because that is my duty.

_____ Chastity is an important and valuable virtue.

Demographic Items

Please provide your relationship status
    Single
    Dating
    Engaged
    Married
    Divorced
Please list your age (in years). _____
Please provide your gender _____
How many sexual partners have you had throughout your life?_____
With which racial/ethnic group do you most closely identify?
    African American / Black
    Asian / Pacific Islander
    Hispanic
    Native American
    White
    Other (please specify) _____
What is your sexual orientation?
____ Heterosexual
____ Homosexual
____ Bisexual
____ Other (please specify____)

How would you describe yourself politically (circle one)

1 = Very strongly <u>conservative</u>
2 = Strongly conservative
3 = Moderately conservative
4 = Neither conservative nor liberal
5 = Moderately liberal
6 = Strongly liberal
7 = Very strongly <u>liberal</u>

Appendix D- Debriefing Script

Thank you for your participation in this study. The willingness of participants like you to engage in research is absolutely crucial to the research process

This research is designed to investigate the relationships between thoughts about religious concepts and attitudes about sexuality. As part of the Lexical Decision Task you may have noticed a subtle flickering in between words. This task was designed to subtly present words related to religious ideas (like "*church*") or neutral ideas (like "butter") and to examine potential effects of those subtle presentations on attitudes and self-reported behaviors. A large body of research demonstrates that these types of presentations may influence attitudes over a very short period of time, and most participants indicate that the task is engaging and often entertaining. The impression formation task, and sexual opinion surveys were used to indicate your attitudes, opinions, and beliefs in regards to sexuality after being primed with religion on the Lexical Decision Task. We are investigating whether subliminal activation of religiousness changes people's attitudes about moral behavior for a few short moments.

If the nature of the Lexical Decision Task or the sexual attitudes measures produced any discomfort or generated any questions or comments, please feel free to contact the researchers Abigail Szotkowski (Abigail.Szotkowski@umit.maine.edu) or faculty supervisor Jordan LaBouff, Ph.D. at Jordan.LaBouff@umit.maine.edu). We will be happy to more fully discuss the nature of the research, respond to any questions or concerns.

Table 1: Zero-order Correlations Between Religious and Sexuality Items

| Variable	1	2	3	4	5	6	7	8	9	M	SD	α
1. Sexual Attitudes (SRI)	--									3.21	.83	.90
2. Sexual Attitudes (ATSS)	.48**	--								48.93	9.03	.83
3. Sexual Attitudes (SOS)	.56**	.59**	--							48.58	19.84	.89
4. # of sex partners	.31**	.14	.15*	--						4.42	7.08	--
5. Religiosity	-.35**	-.51**	.38**	-.04	--					4.08	2.55	--
6. Fundamentalism	-.34**	-.64**	-.39**	.01	.662**	--				3.73	1.83	.94
7. Authoritarianism	-.16*	-.36**	-.25**	-.02	.331**	.48**	--			4.35	1.52	.70
8. MFQ Purity/Sanctity	-.43**	-.50**	-.46**	-.15*	.347**	.52**	.45**	--		.0031	.65	.73
9. Impression Formation	-.09	.10	.05	.22*	.026	-.07	-.09	-.07	--	7.83	1.68	--

*Correlations reported for impression formation are within cell for the multiple partner Amber.

Figure 1: Specific Qualities of Amber Compared Across Conditions

Figure 1: Specific Qualities of Amber Compared Across Conditions
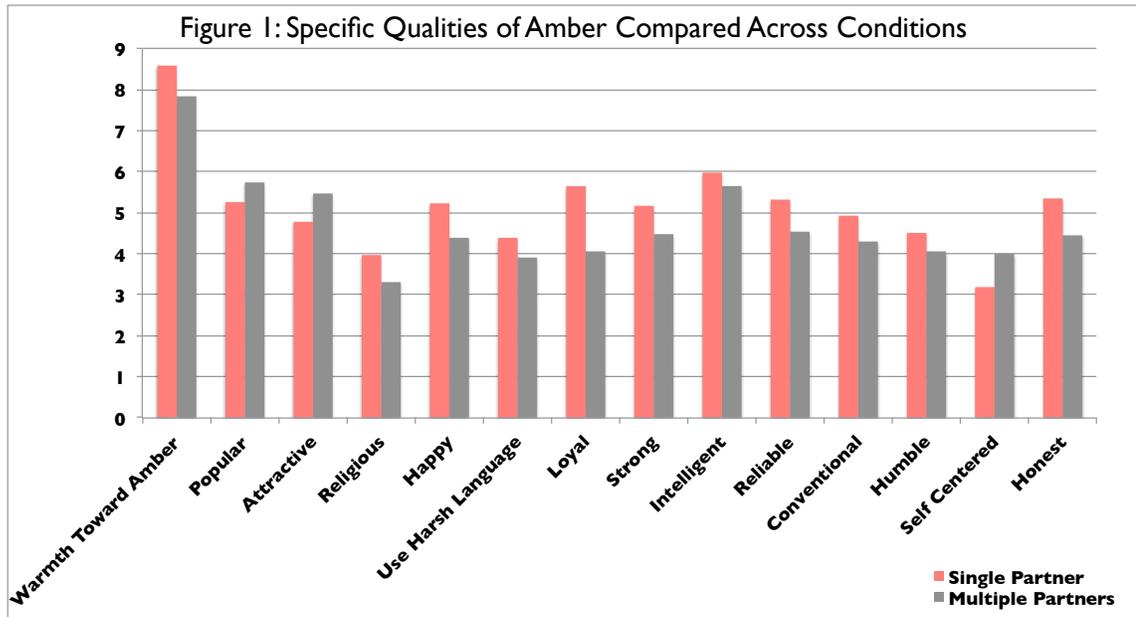
Cohen's D range from .3 to 1.4
All values are significant

Figure 2: Social Distance from Amber Compared Across Condition
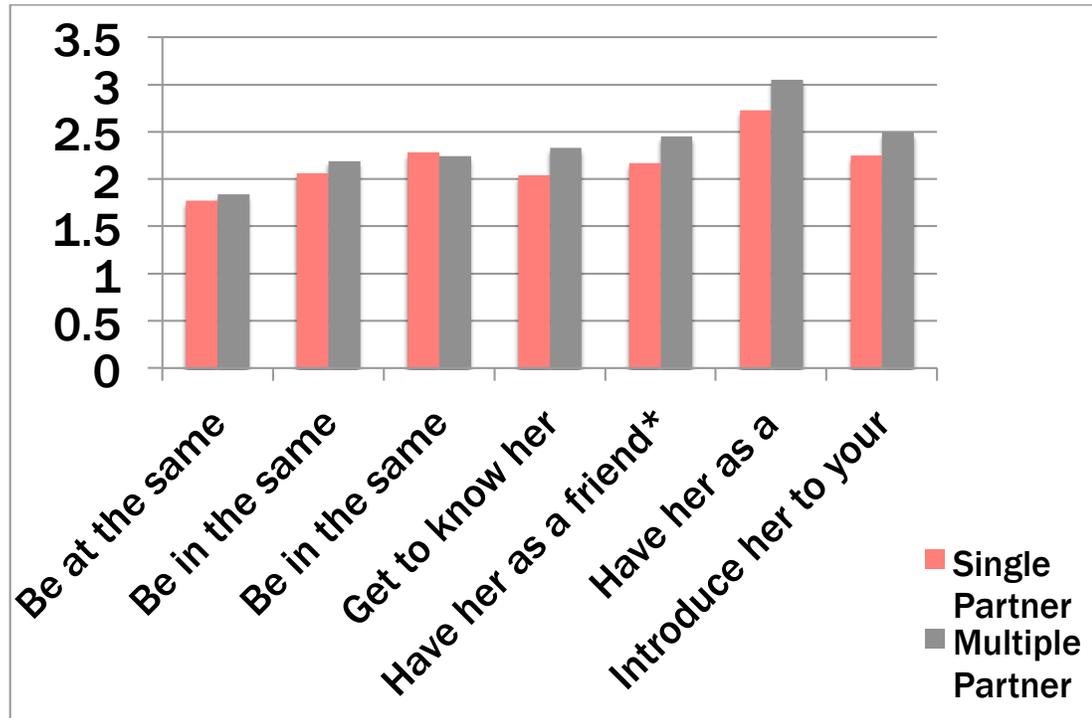
*p<.05, Cohen's D rages from .3-.4

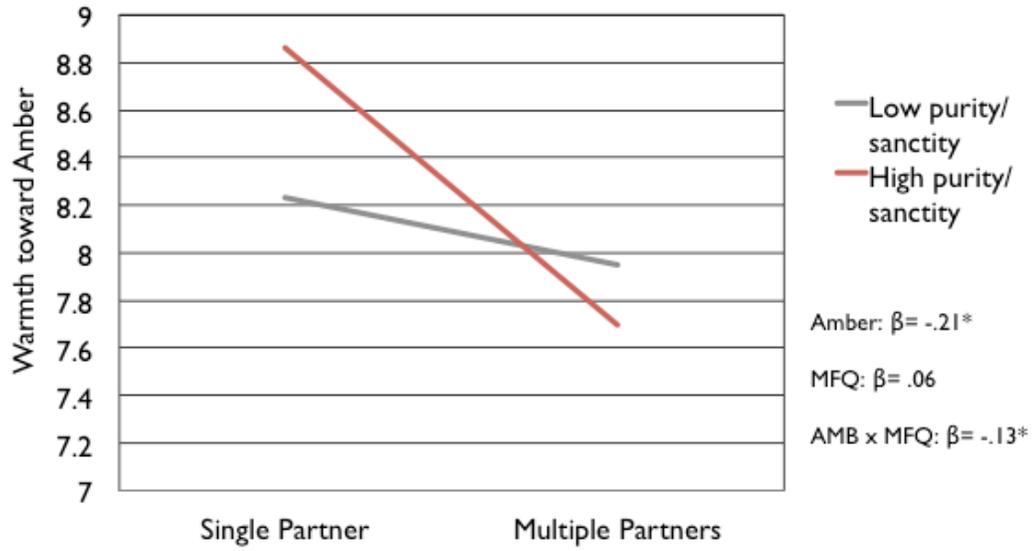**Figure 3: Purity Sanctity Moderating Warmth Toward Amber**

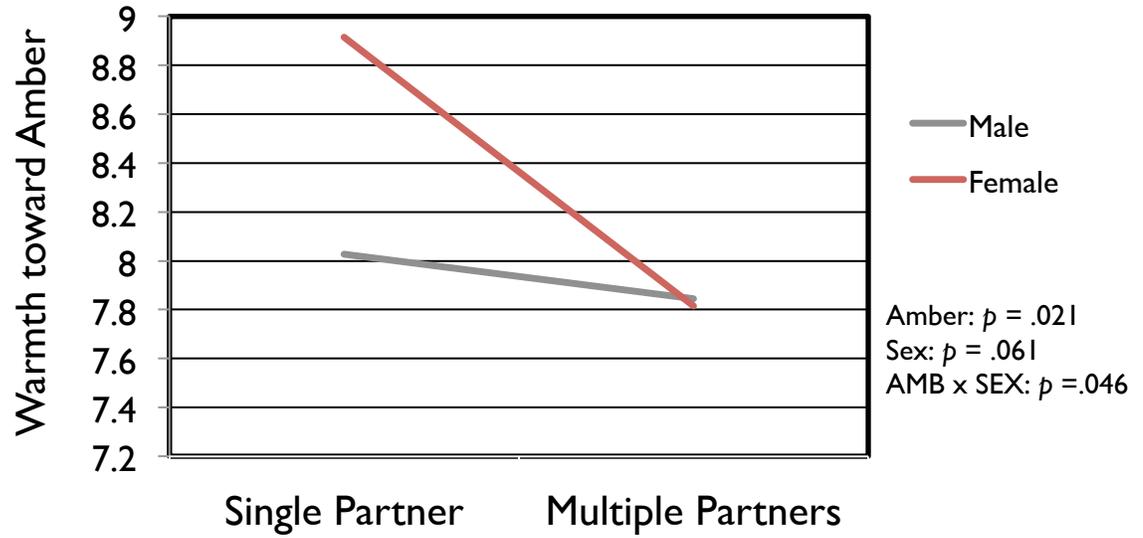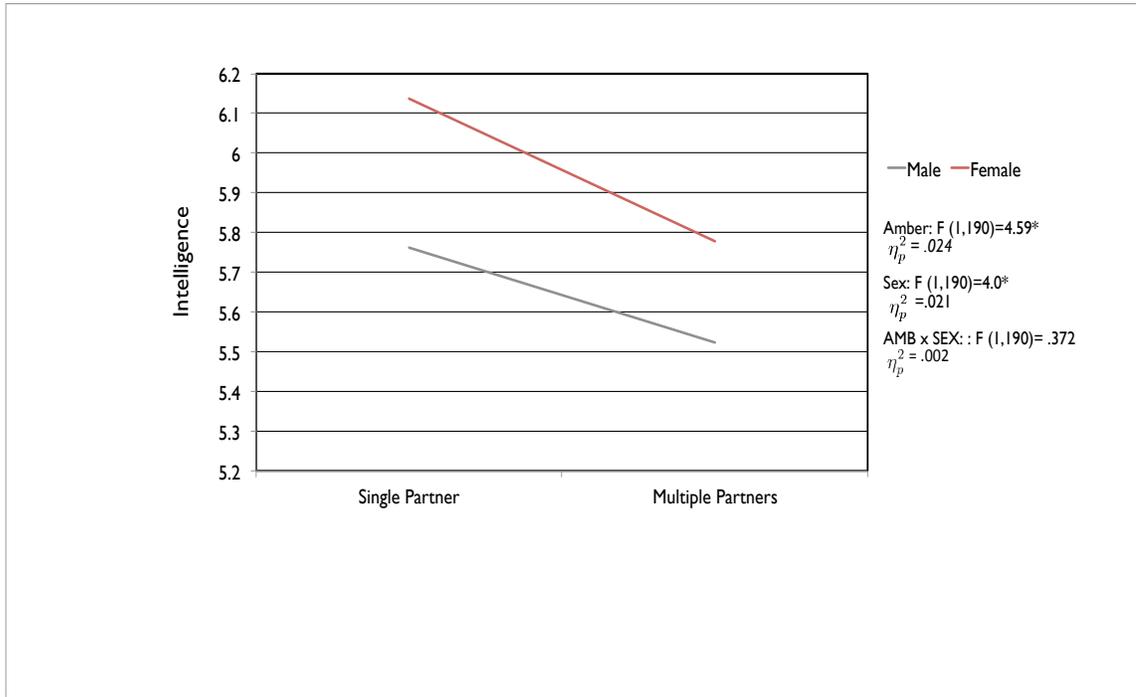**Figure 4: Gender Moderating Warmth Toward Amber**

Amber: $p = .021$
Sex: $p = .061$
AMB x SEX: $p = .046$

Figure 5: Gender Moderating Perceived Intelligence of Amber

Amber: F (1,190)=4.59*
$\eta_p^2 = .024$

Sex: F (1,190)=4.0*
$\eta_p^2 = .021$

AMB x SEX: : F (1,190)= .372
$\eta_p^2 = .002$

AUTHORS BIOGRAPHY

Abigail, or "Abby" as most people call her, was born in Madison, Wisconsin on June 20th, 1992. Her family moved to Maine when she was two, and has resided in Maine ever since. She graduated from Monmouth Academy as Salutatorian in 2010, and went on to attend the University of Maine. She declared her psychology major as a sophomore and got involved in research the following year. She won an undergraduate poster award at the Society for Personality and Social Psychology conference in Austin, Texas, as well as the John W. Nichols Award in 2014. She was involved in Alternative Breaks, a student run organization revolved around community service. She graduated from the University of Maine in the spring of 2014 with a degree in psychology and a minor in sociology.

Abby plans to continue working with her advisor upon graduation to work toward publication. She plans to take some time off to travel, and possibly teach English abroad or join the Peace Corps. She eventually plans to go onto graduate school, but is undecided on exactly which field she will pursue.