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**ASSESSING WOMEN'S ENDORSEMENT OF CONFLICTING MESSAGES ABOUT  
SEXUALITY: DEVELOPMENT OF THE SEXUAL AMBIVALENCE  
QUESTIONNAIRE (SAQ)**

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Psychology

by

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## Abstract

I argue that the American culture provides women with mixed and conflicting messages about sexual expression and will demonstrate that these messages can create conflict in some women that contributes to unhealthy sexual attitudes and behaviors. I focus on two messages. First, women learn to hide their sexual feelings so as to conform to traditional standards of femininity and morally virtuous behavior (Tolman, 2002) and to be disproportionately concerned about the possible dangers of sexual expression (Fine, 1988; Vance, 1984). I label these *Suppress* messages because they teach women to suppress sexual feelings and “just say no” to sexual expression. Conversely, women learn the importance of proving their desirability by performing their sexuality so as to appear sexually attractive and desiring of sexual attention from men (Douglas, 2010; Levy, 2005; Tolman, 2002), irrespective of their own desires (Tolman, 2002). I label this a *Perform* message because it encourages women to engage in sexual performance so as to always “appear sexually available.” Suppress and Perform messages are both problematic. However, I go farther to argue that they are particularly problematic because they are contradictory. They pit the idea that sexual expression should be hidden and is dangerous against messages that sexual expression should be performed and displayed. Simultaneous endorsement of Perform and Suppress messages might create a state of conflict in some women, sexual ambivalence (SA), with regards to how to negotiate sexual expression. In this research, I describe the creation (Study 1 and 2) and validation (Study 3 and 4) of a measure that assesses women’s endorsement of these messages, the Sexual Ambivalence Questionnaire (SAQ), such that predictions can be tested. I use the SAQ to demonstrate that endorsement of either Perform or Suppress messages alone, or endorsement of both simultaneously (SA), can lead to negative consequences for women’s attitudes, beliefs, and decision-making.

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## Introduction

“Here’s what our increasingly pornified media have been telling girls and women: dress like a streetwalker but just say no – or dress like Carrie Bradshaw [on the TV show *Sex and the City*]...and just say yes. Old-fashioned American prudery has always been an important component of keeping women in their place. So has pornography. A culture that is prudish *and* pornographic – how’s that for a contradiction to navigate?” (Douglas, 2010, p. 155)

“...girls walk the precarious line between making themselves sexually available to men and being appropriately demure—the tension at the heart of femininity” (Kim, Sorsoli, Collins, Zylbergold, Schooler, & Tolman, 2007, p. 154).

These quotations reflect the fact that women often receive contradictory messages about sexual expression, in that they should both be a “virgin” and be “sexually available.” On one hand, women learn that that they should present themselves as modest, proper, feminine women who are devoid of sexual desire. Conversely, women also learn that they should perform and act in a sexually available and seductive manner. They should embody the sexual temptress who always appears sexually available and work to entice and please men<sup>1</sup> in order to prove their desirability. In the past, such behaviors would have earned women the label of a “bad girl” or “whore,” and in light of the sexual double standard, still can earn women these labels today. However, women now are learning that their performance of the sexually available temptress is also a chief means to signal that they are sexually confident, liberated, and empowered. In this paper, I refer to these two ideas as Suppress and Perform messages, respectively.

While previous research on beliefs about the virgin-whore dichotomy (Glick & Fiske, 2001; Tolman, 2002; Vance, 1984) suggests that these contrasting views of women can co-exist in individuals, in that one person might label some women as “virgins” and others as “whores”

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<sup>1</sup> These messages are particularly important for heterosexual women, as public education about sexuality and media messages tend to be directed at heterosexuals and assume a heterosexual orientation (e.g., Kim et al., 2007; Rich, 1983; Tolman, 2002; Tolman, Kim, Schooler, & Sorsoli, 2007; Ward, 2003). Thus, in this proposal I focus on heterosexual women as the recipients of these messages.

(e.g., Glick & Fiske, 2001; Sibley & Wilson, 2004), past work has not addressed how women themselves navigate these messages. In particular, in this paper I investigate whether women can hold both views of *themselves* simultaneously. That is, do some women believe that it is important for them to embody both the “virgin” and the “temptress”? And if so, does the contradictory nature of these beliefs lead to the experience of conflict, or ambivalence, about how to negotiate sexual expression? Lastly, I investigate how endorsement of these messages might influence women’s sexual attitudes, beliefs, and behaviors.

While many have theorized about the nature of the conflict that women may experience with regards to negotiating sexual expression, research has not yet addressed (1) how to measure women’s endorsement of these messages, or used such a measure to (2) examine what some of the specific consequences might be of message endorsement. Thus, the first goal of this project is to develop a reliable and valid measure of women’s endorsement of these messages about sexual expression. With this measure, I then examine whether some women do indeed endorse *both* of these messages for themselves, or whether these messages represent a dichotomy such that women might only endorse one or the other for themselves. Second, I examine the consequences of endorsing Suppress, Perform, and both messages simultaneously (ambivalence) for sexual attitudes, beliefs, and behaviors. In particular, I’m interested in whether these attitudes are in conflict for some women and will examine the effects of message endorsement on attitudes and behaviors related to healthy sexual development and decision-making. To address these issues, I first describe the Suppress and Perform messages, the nature of the conflict they could create in some women, and the possible consequences of message endorsement for other related beliefs and for decision-making.



Women learn Suppress and Perform messages from a variety of sources, such as sexuality education in schools (particularly abstinence-only until marriage education; Ehrhardt, 1996; Fine, 1988; Fine & McClelland, 2006), the media (particularly television and magazines for young adults; APA, 2007; Joshi, Peter, & Valkenburg, 2011; Ward, 2003), and from some religious and moral values. Below, I describe the major themes that I believe contribute to the endorsement of each of these messages, and if correct, how endorsement of these messages might link to various attitudes, beliefs, and actions.

### **Suppress Messages: “Just Say No”**

Women learn that they should Suppress their sexuality, both feelings and behaviors. Specifically, they learn that *a good woman suppresses and hides her sexuality (both feelings and activity) in order to remain morally pure, virtuous, and chaste, and in order to conform to traditional standards of femininity*. And with regards to sexual activity, they learn that *a good woman is concerned about the negative physical and psychological costs of engaging in sexual intercourse and believes that she is responsible for protecting herself against these costs*. Thus, they are told that Suppression is necessary because sexuality represents a domain in which (a) they must demonstrate that they are morally virtuous (Fine, 1988), (b) they must act as good feminine women (Tolman, 2002), and (c) they must avoid sexual contact in order to protect themselves from the dangers inherent in sexual activity (Fine, 1988; Fine & McClelland, 2006).

The idea that women must suppress their sexuality in order to demonstrate that they are morally virtuous comes from a variety of sources, but perhaps the best articulation of this message comes from Fine’s (1988) work on sexual education in schools. Fine (1988) describes this idea as the “sexuality as individual morality” discourse. This discourse builds upon our

society's history of viewing sexuality as a moral domain (Rubin, 1984), and in particular that women have the capacity to be morally superior to men (Glick & Fiske, 1996, 1997, 2001). Thus, these discourses educate women in "moral literacy," which includes modesty, chastity, and abstinence until marriage (Fine, 1988, p. 32) and are consistent with the conservative and religious messages contained in abstinence-only education programs (LeClair, 2006; Santelli, Ott, Lyon, Rogers, Summers, & Schliefer, 2006). Women are taught that self-respect is a "test" of sorts, which requires self-control, restraint, and watchfulness (Fine, 1988, p. 33). Further, women learn that a lack of self-control renders one morally deficient and even dirty or impure (Rozin, Haidt, & McCauley, 2008; Tanenbaum, 2000; Valenti, 2009; Vance, 1984), and may even lead to feelings of shame, guilt, or embarrassment if one does not live up to moral standards. *If suppress messages are linked to the notion of being moral, then I hypothesize that Suppress messages will be (a) positively correlated with conservative and religious values (b) associated with concerns with the opinions of others and (c) linked to being concerned with the appearance or image that one presents to others.* This is because high Suppress women would think it necessary to demonstrate their adherence to conservative and moral standards to others.

In addition to containing morality messages, Suppress messages are also consistent with and reinforcing of traditional gender roles, and traditional femininity in particular. Women learn that it is important to pursue romantic relationships, because neither a man nor a woman is complete without the other (Glick & Fiske, 1996), and thus one ideal way for a woman to demonstrate adherence to traditional feminine norms is in the context of male-female relationships and interactions. Women are expected to be self-silencing (also known as relationship inauthenticity; Impett, Sorsoli, Schooler, Henson, & Tolman, 2008; Tolman, Impett, Tracy, & Michael, 2006), self-sacrificing, compliant (Impett & Peplau, 2003), and submissive

(Kiefer, Sanchez, Kalinka, & Ybarra, 2006; Sanchez, Kiefer, & Ybarra, 2006). The media teaches women to suppress their concerns, insecurities, and feelings so as to maintain relationships with male partners, who they are told are less adept at maintaining relationships (Ward, 2003). Further, in line with moralizing discourses on female sexuality, women learn from popular magazines that “innocence” is attractive to men (Garner, Sterk, & Adams, 1998), whereas assertiveness and expressing one’s own opinions and desires is not (Ward, 2003). Women learn that they should not express their own sexual feelings, particularly if doing so might challenge or threaten a male partner. In addition, as sexual feelings and desire are coded as male, women’s feelings of desire are often not acknowledged or discussed (Fine, 1988; Tolman, 2002). In fact, Fine (1988) referred to this as the missing discourse of female desire. As a result, some women may think that they are not entitled to their own sexual feelings or that they should not express sexual feelings. *Thus, I predict that endorsement of Suppress messages should be (a) positively related to endorsement of traditional gender roles and (b) negatively related to holding a healthy sexual self-concept.*

Women also learn that the transition from young adult to older adult (married) sexuality is fraught with dangers from which women must protect themselves (Joshi et al., 2011; Levy, 2005). In the context of sexuality education in schools (particularly abstinence-only education), Fine (1988) describes this as the “sexuality as victimization” discourse, which characterizes sexual expression as inherently risky and dangerous. In the media, magazines written for teens and young women (e.g., Seventeen, YM, ‘Teen) often equate sexual contact with victimization and risk (Carpenter, 1998; Garner et al., 1998; Ward, 2003). Specifically, women are taught to be wary of their physical vulnerabilities to disease (e.g., STIs) and pregnancy. And women are also taught to be wary of the negative psychological and emotional costs that come from sexual

activity such as sexual victimization, sexual coercion, and use and abuse by men. For instance, the media quite often depict the emotional consequences or fallout of sexual activity, such as emotional pain and embarrassment, particularly for women (Ward, 2003).

The belief that sex is dangerous also creates fear and anxiety for women are portrayed as potential victims of uncontrollable male desire (Fine, 1988; Tolman, 2002; Ward, 2003), and as having no desires of their own that they can use to decide if they wish to engage in sexual contact (Kimmel, 2005; Vance, 1984; Ward, 2003). Consistent with view that men are hostile (Glick & Fiske, 1999), men are portrayed as callous, uncaring, and only interested in finding ways to have sex with women while at the same time avoiding meaningful relationships with them. Thus, women come to fear sexual violence and victimization (Vance, 1984) and are positioned as the ones who must be responsible for protecting against (e.g., the “gatekeepers” of) male sexuality and desire (Hust, Brown, & Ladin L’Engle, 2008; Kim et al., 2007; Tolman, 2002; Tolman, Kim, Schooler, & Sorsoli, 2007; Vance, 1984; Ward, 2003). Married heterosexuality is portrayed as the only safe space for women’s sexual expression (Rich, 1983; Santelli et al., 2006; Tolman, 2002). As such, *I predict the endorsing Suppress messages should be positively associated with concerns about physical safety.*

It should be noted that Suppress messages might actually form two separate, though related, sub-components, which I refer to as *Hide* and *Protect* messages. Women must Hide their sexual feelings so as to (a) demonstrate moral standards of purity and virtue and (b) adhere to traditional feminine roles. Women must also Protect themselves from (c) the dangers inherent in sexual expression. Thus, Hide messages instruct women to avoid sexual feelings and expression entirely, and Protect messages instruct women to be concerned about the dangers they will face should they choose to engage in sexual activity. Thus, I will examine whether these

contributors to Suppress attitudes are best conceptualized as a single Suppress message, or as two potentially distinct sub-components.

In addition to attitudes, I also make predictions about how Suppress messages may link to sexual behaviors and alcohol use. Because Suppress messages teach women to “just say no” to sexual activity and create fear and anxiety about sexual activity, I predict that Suppress endorsement will be associated with having less positive attitudes about casual sex and with fewer sexual partners. I predict the Suppress endorsement will not be related to the use of protection behaviors (i.e., using condoms or birth control) because, as noted, women who endorse Suppress are likely not having sex, and thus there would be minimal variability on this outcome. While alcohol use is common on college campuses, particularly in the context of the “hookup culture,” which combines alcohol use and sexual activity (Bogle, 2008; Kimmel, 2009), I predict that women who endorse Suppress messages will be less likely to drink alcohol and less likely to have sex while intoxicated. I make this prediction because alcohol use can reduce one’s ability to make safe and responsible choices, and thus using alcohol is not likely a behavior that high Suppress endorsing women would engage in.

In sum, Suppress messages teach women that in the sexual domain, they must (a) demonstrate that they are morally virtuous and (b) be good feminine women, and (c) avoid sexual contact in order to protect themselves from the dangers that follow from sexual activity. Thus, I predict that endorsement of Suppress messages should be *positively* associated with the following (Tables 4 and 6 also contain a summary of these predictions):

- concerns about the opinions of others;
- concerns with one’s appearance;

- holding conservative, religious, and moral values;
- holding traditional and conservative attitudes about gender roles;
- holding a more negative sexual self-concept;
- concerns about personal safety.

And Suppress endorsement should be *negatively* associated with the following:

- holding favorable attitudes towards casual sex;
- total number of sexual partners and casual sex partners;
- alcohol use;
- having sex while intoxicated.

While I have focused thus far on the view that women should Suppress their sexuality, this view is in contrast to another prevalent and more recently emerging cultural message that women should Perform their sexuality. In her analysis of the cultural forces that have influenced portrayals of women in the media, Douglas (2010) argues that over the past several decades many women became increasingly frustrated and “tired of having their sexuality seen as something dangerous or shameful, something they had to deny or censor” (p. 160). Thus, she argues that there was a push towards a more “sex positive” view of women’s sexual expression that largely began with changing media representations of women. Regardless of intent, the resulting Perform message is problematic because it encourages women to be good sexual objects rather than desiring and autonomous sexual subjects (Douglas, 2010; Gill, 2003, 2008; Halliwell, Malson, & Tischner, 2011; Liss, Erchull, & Ramsey, 2011; Nowatzki & Morry, 2009). I next describe further the content of Perform messages and highlight possible links between endorsement of Perform messages and harmful attitudes and behaviors.

### **Perform Messages: Always “Appear Sexually Available”**

Women learn from Perform messages that *a good woman must perform her sexuality with the goal of getting attention from and provoking lust in (either real or imagined) others.*<sup>2</sup> This is because satisfying the desires of others, irrespective of her own feelings of desire, provides proof and evidence of her worth as a woman. That is, Perform messages teach women that they should always (a) appear sexually available so as to prove their desirability and sexual attractiveness to men (Levy, 2005), (b) irrespective of their own embodied desires (Tolman, 2002). Further, (c) women are told that this type of sexual performance is mark of their status as a sexually empowered and liberated women, and that the ultimate form of power a woman should seek is the power to incite desire and lust (Douglas, 2010; Levy, 2005).

Research documenting the proliferation of sexual content across many types of media (Brown, Halpern, & Ladin L'Engle, 2005; Pardun, L'Engle, & Brown, 2005; Ward, 2003) supports Levy's (2005) assertion that women live in a "candyland of sex" (p. 157). From a young age (APA, 2007; Durham, 2008) women learn the importance of proving their desirability to men. Media representations of women convey the importance of maintaining a sexually attractive appearance (Aapola, Gonick, & Harris, 2005; Gill, 2003, 2008; Halliwell et al., 2011; Levy, 2005; Liss et al., 2011; Nowatzki & Morry, 2009) that is pleasing to the "male gaze" (Calogero, 2004; Fredrickson & Roberts, 1997). The appearance of women's bodies is constructed one of their most important sources of self-esteem (Roberts & Goldenberg, 2007). Women learn to be good sexual objects that are responsive to male desire (Douglas, 2010; Garner et al., 1998; Ussher, 2005). That is, they learn to dress, speak, and behave in ways that

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<sup>2</sup> To clarify several key terms in this definition, a performance has several modes, which can include visual (e.g., manner of dress), verbal (e.g., a statement), or physical (e.g., a behavior). And thus a sexual performance can consist of one or all of these expressions. These performances can be meant for other people in a real-life interaction, but can also involve imagined interactions with others (e.g., fantasies, imagining what others see or how they would respond when they interact with you).

will be pleasing to men. Passive strategies such as dressing provocatively to attract men have been referred to as “feminine courting strategies” (in contrast to masculine strategies which are more agentic and assertive; Kim et al., 2007; Tolman et al., 2007). Female characters in popular TV sitcoms and dramas often use such strategies, which are also advocated in women’s magazines (Douglas, 2010; Ward, 2003). *Thus, I predict that endorsement of Perform messages will be positively associated with (a) concerns with the opinions of others and (b) concerns about the appearance of the body, and in particular with (c) sexual objectification, as this is evidence that women are focused on how their bodies look, not how their bodies feel.*

Importantly, sexual performance goes beyond merely maintaining a sexually attractive appearance in that it also necessitates the purposeful seeking of sexual attention and desire of others (Levy, 2005; Nowatzki & Morry, 2009). That is, “proving you are hot, worthy of lust, and – necessarily – that you seek to provoke lust is still exclusively women’s work” (Levy, 2005, p. 33). *Thus, I predict (a) that women’s goals of satisfying the desires of men might lead to favorable beliefs towards casual sex and increase women’s engagement in sexual activity to satisfy male partners, particularly as one way for men to prove their adherence to the masculine gender role is to pursue sexual conquests with women (Kimmel, 2005, 2009). Further, because sexual activity in college occurs in the context of the “hookup culture,” which tends to combine alcohol use with sexual activity (Bogle, 2008; Kimmel, 2009), I predict (b) that endorsement of Perform would also be positively associated with alcohol use.*

Perform messages also teach women that engaging in this particular type of sexual performance is a key way to prove that they are sexually empowered and liberated, and that the ultimate form of power a woman can hold in society lies in her ability to incite desire. Women learn that they should be good consumers of fashion, beauty, and lifestyle products that keep



them looking young and desirable according to narrow cultural standards of female beauty (Gill, 2008). And they are told that their sexual autonomy should be expressed via the purchasing of such products (Harris, 2005; Levy, 2005; Tolman, Striepe, & Harmon, 2003; Ward, 2003). Perform messages also teach women that the appearance of their bodies can be a source of power over others (Douglas, 2010; Gill, 2008). Possessing a desirable female body is viewed as a bargaining chip or form of social currency that can and should be used to get goods and attention from others, particularly men (Harris, 2005). Further, women learn that their most important source of power is their ability to entice men by maximizing their sexual attractiveness and desirability (Douglas, 2010; Gill, 2008; Halliwell et al., 2011). Women are told that

it's through sex and sexual display that [they] really have the power to get what they want. And because the true path to power comes from being an object of desire, girls and women should now actively choose – even celebrate and embrace – being sex objects. That's the mark of a truly confident, can-do girl: one whose objectification isn't imposed from without, but comes from within. (Douglas, 2010, p. 156)

This is in contrast to more legitimate forms of social power and status that come from developing skills, intellectual abilities, and passions.

Many have argued that these representations of women's sexuality as a performance are problematic because they are marketed to women under the guise of female “sexual liberation,” “empowerment,” and legitimate expressions of women's desires. Instead, they are objectifying and commodifying representations of female desire and pleasure that serve to marginalize and co-opt women's actual feelings of sexual desire, satisfaction, and pleasure. Rather than encourage women to actively seek out more legitimate forms of power and status within society, this arrangement actually serves to reinforce traditional gender roles where women are subordinate and complementary to men. Because Perform messages subordinate women's desires to those of men and fail to promote gender equality, *I predict that endorsement in Perform messages will be*

*positively associated with endorsement in traditional gender roles.* Women are constructed as sexual objects for men's consumption rather than as sexual subjects (APA, 2007; Burch, 1998; Fredrickson & Roberts, 1997; Tolman, 2002). Fine and McClelland (2006) argue that many women express a "caricature" or a "performance" of desire, rather than actual desire itself.

It is likely that some women engage in sexual performance because they have internalized Perform messages and believe that these behaviors are expressions of their own desires, or simply wish to incite the desire of others. Conversely, some women likely feel pressured to engage in such performances even when they do not wish to or when it is uncomfortable to do so, such as wearing tight, uncomfortable, or revealing clothing. Gill (2008) argues that if these sexual performances were in fact legitimate expressions of female sexuality and desire, then there would be much more variability in women's expressions. That is, our conception of what is sexy would not be restricted to women who are white, thin, able bodied, relatively affluent, and active seekers of male attention and validation. Regardless of a woman's own desires or motivation for engaging in sexual performance, the resulting behaviors are the same. Women learn to value only the appearance of sexiness, which can eventually become divorced from actual experiences of desire and pleasure, sexual autonomy and agency, and from the simple reality of being oneself (Levy, 2005). Thus, *I predict that endorsing Perform messages will be negatively associated with, or at least not positively associated, with holding a more positive, healthy sexual self-concept, with one exception. Because Perform messages tell women to be open and direct in their sexual performances, I predict that Perform endorsement will have a small positive association with having an open/direct view of oneself in the context of sexual expression and a small negative association with being inhibited/embarrassed about sexual expression.*

In Sum, Perform messages teach women that they should always (a) appear sexually available in order to prove their desirability, (b) irrespective of their own embodied desires. Further, (c) women are told that this type of sexual performance is sexually empowering and liberating, and that their true power lies in their ability to incite lust. Thus, I predict that endorsement of Perform messages should be *positively* associated with the following (Tables 4 and 6 also contain a summary of these predictions):

- concerns about the opinions of others;
- concerns with one's appearance, and in particular with self-objectification;
- holding traditional attitudes about gender roles;
- holding favorable attitudes towards casual sex;
- total number of sexual partners and casual sex partners;
- alcohol use;
- having sex while intoxicated.

Endorsing Perform messages should also be *unrelated or even negatively* related to:

- holding a positive sexual self-concept, though endorsement may make some women more open/direct and less inhibited/embarrassed about sexual expression.

### **Measuring Endorsement of Suppress and Perform Messages**

While a great deal of previous research supports my contention that Suppress and Perform messages are predominant messages that women receive about their sexuality, to my knowledge researchers have yet to develop a means of measuring women's endorsement of these messages<sup>3</sup>. And further, without a means of measuring women's endorsement, it is difficult to

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<sup>3</sup> One recent exception is a scale created to measure women's enjoyment of self-sexualization (ESS; Liss, Erchull, & Ramsey, 2011), which shares some similarities with my Perform construct. However, this scale is dissimilar to my

examine the consequences of message endorsement for other important attitudes, decision-making, and behaviors. I have also raised the additional issue of whether endorsement of Suppress and Perform messages should be thought of as a dichotomy, or as two separable dimensions that should be measured independently of one another. That is, do women endorse only one particular type of sexual expression for themselves, either Perform or Suppress? Or might it be possible for women to endorse *both* disparate messages at the same time such that conflict is created?

One primary goal of the present investigation was to develop a reliable and valid measure of women's endorsement of these messages, the Sexual Ambivalence Questionnaire (SAQ). Thus, in Study 1, I describe item creation and selection. In Studies 2 and 3, I describe the factor structure of the scale, and I test the predictions that (a) Perform and Suppress messages form 2 distinct factors and (b) whether Suppress messages should be further broken down into Protect and Hide factors or viewed as a single, unified construct. I also examine whether some women endorse Perform and Suppress messages simultaneously, and thus test the prediction that they are separable dimensions vs. dichotomous categories. If a woman can simultaneously endorse both Perform and Suppress messages for herself, I believe that this potential dual endorsement creates a state of sexual ambivalence (SA), which has an array of potential consequences.

### **Sexual Ambivalence (SA)**

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own Perform construct and measure in two ways. First, it measures women's *enjoyment* of self-sexualization, whereas I measure women's *engagement* in self-sexualization regardless of whether or not they enjoy it. I have argued that women sometimes engage in sexual performance, or feel pressured to do so, regardless of their own feelings and desires. And I include items that assess engaging in sexual performance even when one does not want to (e.g., "I sometimes try to look sexy even when I don't feel sexy"). Second, the items on the ESS scale do not assess the Suppress construct, and thus cannot examine the potential for ambivalence

If Suppress and Perform are two messages that women receive, what happens when women endorse both of these messages simultaneously? Endorsing both would lead to the belief that one must engage in a sexually performative expression (Perform), but then at the same time avoid expressing sexual feelings or engaging in sexual behaviors (Suppress). Women must simultaneously work to entice and satisfy men, but also to repel them (Tolman, 2002).

Endorsing these disparate messages may lead to conflict in some women in terms of how to negotiate sexual expression. I label this potential conflict: sexual ambivalence (SA).

Ambivalence results when one holds a simultaneously strong evaluation *for* and *against* an attitude object (de Liver, van der Pligt, Wigboldus, 2007; Kaplan, 1972; Priester & Petty, 1996; Thompson, Zanna, & Griffin, 1995), which can also be experienced as a conscious feeling of being “torn” or “conflicted” (felt ambivalence; Larsen, McGraw, & Cacioppo, 2001; Newby-Clark, McGregor, & Zanna, 2002; Priester & Petty, 1996; van Harreveld, Rutjens, Rotteveel, Nordgren, & van der Pligt, 2009). If ambivalence is created, then using the psychological ambivalence research as a theoretical starting point, one can make a series of predictions concerning how sexual ambivalence may operate.

### **Ambivalence as a Psychological Construct**

Ambivalence is a state of conflict in that “conflict is a situation where oppositely direct, simultaneously acting forces, of approximately equal strength, work upon the individual” (Lewin, 1935, p. 123). In the case of ambivalence, it is simultaneous feelings *for* (positivity) and *against* (negativity) an attitude object that creates a state of conflict. The construct of ambivalence gets its origins from work by Kaplan (1972) who was one of the first to argue that rather than viewing positivity and negativity as opposite ends on a continuous spectrum, they should be viewed and assessed as two separate dimensions. Since then, there has been a great

deal of research on the separability of positive and negative evaluations, which supports the idea that positivity and negativity can and should be assessed along separate dimensions (e.g., Cacioppo & Berntson, 1994; Cacioppo, Gardner, & Berntson, 1999). In this paper, I focus on potential ambivalence, which occurs when individuals hold simultaneously strong attitudes for/positivity and against/negativity an attitude object (de Liver et al., 2007; Kaplan, 1972; Priester & Petty, 1996; Thompson et al., 1995). It is called potential ambivalence because individuals holding such evaluations are *not necessarily aware* of the incongruity of their positive and negative beliefs (Kaplan, 1972; Petty, Tormala, Brinol, & Jarvis, 2006; van Harreveld, van der Pligt, & de Liver, 2009).

Consistent with the hypothesis that sexual ambivalence may occur in women who simultaneously endorse both messages, research indicates that individuals, particularly women, are likely to experience ambivalence in sexual situations (O'Sullivan & Gaines, 1998) because it is a domain in which they can experience simultaneously favorable and unfavorable thoughts and feelings (Fine, 1988; Goldenberg, 2005; Goldenberg, Kosloff, & Greenberg, 2006; Muehlenhard & Peterson, 2005; Tolman, 2002; Vance, 1984). Thus, in the present work, I conceptualize endorsement of Perform messages as a feeling *for* this particular type of sexual expression, and endorsement of Suppress messages as a feeling *against* sexual expression. Feeling *for* sexual expression can be thought of as akin to approaching or engaging in sexual expression or as being very outgoing and social (high extraversion) about sexual expression. Conversely, feeling *against* sexual expression can be thought of as akin to avoiding or distancing oneself from sexual expression or as being very shy and reserved (low extraversion) about sexual expression. In order to establish that Perform and Suppress attitudes are related to, but distinct from, theoretically linked individual differences such as approach-avoidance tendencies and

extraversion, I made the following predictions. *I predict (a) that endorsement of Perform messages would be positively associated with having an approach oriented and extraverted personality, whereas (b) endorsing Suppress messages would be positively associated with having an avoidance oriented personality and negatively associated with having an extraverted personality.*

People who feel ambivalent express attitudes that are highly influenced by situational forces. Because of the situational influences, their attitudes are unstable (Bargh, Chaiken, Govender, & Pratto, 1992), more amenable to persuasion (Armitage & Conner, 2000; Clarkson, Tormala, & Rucker, 2008; Eagly & Chaiken, 1993; Maio, Bell, & Esses, 1996; for an exception, see Bassili, 1996), and less predictive of behavior (Armitage, 2003; Armitage & Conner, 2000; Conner, Povey, Sparks, James, & Shepherd, 2003; Conner, Sparks, Povey, James, Shepherd, & Armitage, 2002; Lavine, Thomsen, Zanna, & Borgida, 1998; Moore, 1973; Priester, 2002; for an exception see Jonas, Diehl, & Bromer, 1997). This greater reliance on situational forces can produce attitude polarization, in which ambivalent people's attitudes tend to align with a salient prime or cue in the situation. This polarization occurs because ambivalent individuals hold simultaneously for/positive and against/negative evaluations, and thus their attitude can become polarized (extreme) in the face of situational cognitions that lead them to focus only on either the for/positive or against/negative evaluation (Bell & Esses, 1997, 2002; Katz & Hass, 1988; MacDonald & Zanna, 1998). For instance, MacDonald and Zanna (1998) assessed male participants' ambivalence towards feminists and then examined the impact that priming positive and negative cognitive evaluations would have on liking and hypothetical hiring decisions. They found that only ambivalent men were influenced by the primes. Specifically, ambivalent men who were primed with a negative evaluation of feminists reported less liking and indicated that

they were less likely to hire a feminist for a job. Ambivalent men primed with positive evaluations of feminists showed the reverse pattern. Conversely, men who were not ambivalent about feminists were not influenced by the negative prime, presumably because their attitude was crystallized prior to the prime. Thus, when situational forces lead individuals with attitudinal ambivalence to focus on either the positive or negative component of the attitude, they exhibit response polarization or amplification. Furthermore, when one component of the ambivalent attitude is primed, respondents are faster to make their decision (van Harreveld et al, 2004).

In the present work, I focus on how the potential ambivalence (SA) created by the conflict between Suppress messages and Perform messages may influence women's decision-making. While there are many ways to assess decision-making, in this preliminary investigation I focus on women's decisions about their preferences. Previous research suggests that ambivalence will create unstable and pliable attitudes due to the attitude polarization that results from reliance on situational cues. In Study 4, I test these predictions by manipulating the salience of situational cues via several persuasive communications to examine the ways in which communication content interacts with SA to influence women's preferences for particular topics related to sexual expression. I predict that women with sexually ambivalent attitudes (high SA) will be more influenced by the content of the persuasive communications when indicating their preferences than those with less ambivalent attitudes (low SA). As such, high SA women will indicate preferences that are consistent with the content of the Perform or Suppress situational cue they are primed with, and will also be faster to indicate their preferences. Further, I predict that low SA women will not be as influenced by the content of the persuasive communications, but rather their pre-existing Perform and Suppress attitudes will predict their preferences.



In addition to influencing preferences, SA should also be linked to several individual difference measures and behaviors (Tables 5 and 6 also contain a summary of these predictions).

To establish construct validity of SA, because SA represents a state of conflict with regards to how to engage in sexual expression, I predicted that SA would be positively associated with:

- conscious feelings of conflict (felt ambivalence) about sexual expression.

Because people who prefer consistency are probably less likely to hold conflicting attitudes, I also expected SA to be negatively correlated with:

- trait preferences for consistency

With regards to sexual behaviors, because I have argued that high SA women's sexual decision-making is largely based on situational cues, it is difficult to make predictions about how SA would be related to sexual behaviors. Thus, I did not make specific predictions about these relationships. However, some research does indicate that when people are in a stressful state (in the case of SA, a state of subjective conflict about sexual expression) that they sometimes drink alcohol to alleviate their discomfort (e.g., Steele & Josephs, 1990). And thus I predicted that SA could be positively associated with:

- alcohol use,
- having sex while intoxicated.

Next, I describe the development of the SAQ, including item selection (Study 1), factor structure (Study 2 and Study 3), and construct validity (convergent and discriminant validity; Study 3). Then I describe a study (Study 4) developed to test the influence of SA on women's decisions about their preferences and examine SAQ test-retest reliability.

### **Study 1: Developing the SAQ**

## **Method**

### **Initial Item Generation and Selection**

In order to generate an initial set of items for the SAQ, I consulted ethnographic accounts of women's reactions to the messages they receive about sexual expression and the ways in which women negotiate sexual expression for themselves (e.g., Fine, 1988; Levy, 2005; Tolman, 2002). I used these accounts to write my initial 116 item pool. In order to further refine and reduce the number of items, I did two things. First, I conducted cognitive interviews with 11 undergraduate females working as research assistants in a psychology laboratory. I presented a paper copy of the items and asked the research assistants to cross out items they found confusing or otherwise problematic, and then asked them to bring up in a group discussion changes that might improve individual items for an undergraduate sample (i.e., change terminology). I used this feedback to remove items that multiple people indicated might be problematic. I modified the rest of the items in line with the feedback I received as much as possible while still retaining the intended meaning of the item. Finally, I re-examined how well the content of each item fit with the Perform and Suppress (Hide and Protect) constructs as I defined them and retained only items that fit well with the construct definitions. In doing this last step, I also consulted with several graduate and undergraduate students in a separate psychology laboratory (5 females and 2 males) and several faculty members. I retained 17 Perform items and 28 Suppress items (13 Protect and 15 Hide) for the Q-Sort interview procedure, which I describe next.

### **Participants**

Participants were 25 female undergraduates attending The Pennsylvania State University. Four of the participants were recruited through the Psychology Department subject pool and

received course credit for their participation. The remaining 21 were recruited from several classes on human sexuality and received extra credit in their course for participating. Seventy-two percent of the participants were white.<sup>4</sup>

## Procedure

I conducted semi-structured, one-on-one interviews using a procedure adapted from that of Anderson and Gerbing (1991; refer to Appendix A for the interview script). I audio recorded all interviews, which consisted of 3 parts.<sup>5</sup> In Part I, I read definitions of each of the 3 themes (Perform, Suppress sub-themes: Protect, Hide) aloud to the participant, defined key terms, provided examples, answered questions, and asked for comments and thoughts (refer to Appendix B for theme definitions). I presented themes in counterbalanced order. Theme definitions remained on the table in front of the participant for the entire interview, and participants could refer to the definitions and ask questions at any time. Next, participants rated the extent to which they thought that each theme fit with messages that women commonly receive about their sexuality on a 4-point Likert scale (1 = *not at all*; 2 = *a little*; 3 = *somewhat*; 4 = *very much*; refer to Appendix A).

In Part II, participants read aloud 45 statements and matched each statement with one of the 3 themes (refer to Appendix B). In Part III, for each theme, I read back the statements

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<sup>4</sup> Participants were not asked to provide any demographic information, but I made note of the observed race of each participant when possible. The race of 2 participants could not be determined, and the race of 1 participant was not recorded. Eighteen of the participants appeared to be white and 4 non-white.

<sup>5</sup> Interview length was determined based on the length of the audio recording for each participant. The recorder was started after obtaining consent, but before reading the definitions of each theme. The recorder was stopped after the participant was debriefed in order to capture all reactions to the interview. The average interview time was 47.51 minutes ( $SD = 12.21$  minutes;  $MIN = 31.78$  minutes;  $MAX = 90.35$  minutes).

participants matched with that theme and allowed them to make changes. I then thanked and debriefed them.<sup>6</sup>

## Results

First, I examined participants' perceptions that the 3 themes represent messages that women receive about their sexuality. For each theme, participants ratings were well above the midpoint of the scale, indicating that they believed that women receive these messages "somewhat" to "very much" (Perform  $M = 3.28$ ,  $SD = .94$ ; Protect  $M = 3.48$ ,  $SD = .71$ ; Hide  $M = 3.16$ ,  $SD = .75$ ).

I next investigated the substantive validity of the scale, which is the extent to which participants matched each item with its intended theme (Anderson & Gerbing, 1991). I used three different methods (formulas are described in Appendix C). (1) The *content-validity ratio* (CVR; Lawshe, 1975) is a proportion that ranges in value from -1.0 to 1.0 such that higher numbers indicate greater validity of the item. The critical or minimum value for an item to be included in the scale with 25 participants is .37 (Lawshe, 1975). (2) The *proportion of substantive agreement* (PSA; Anderson & Gerbing, 1991) represents the proportion of participants who matched the item with its intended theme. PSA ranges from 0.0 to 1.0 where higher values indicate greater validity of the item. This formula allows the researcher to examine whether the given item assesses the intended construct. However, it does not assess whether the

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<sup>6</sup> In Part II, I counterbalanced the order in which statements were presented to participants by using a random number generator to create 2 different item orders, and then randomly assigned participants to receive 1 order. After matching each item with a theme, participants also rated how well each statement fit with that theme on a 5-point scale (1 = *a little*, 3 = *somewhat*, 5 = *very much*). Participants also made note of items that they thought were negatively worded and of items that seemed to fit with multiple themes; that is, items they were torn about in terms of choosing a theme. In Part III, participants were also free to comment about the items and the measure as a whole. These data were exploratory and were not used to choose the final items. Thus, they are not discussed further.

item is also assessing other related constructs. There is no standard procedure for determining the critical value for this measure. (3) Values on the *substantive-validity coefficient* (CSV) range from -1.0 to 1.0, where higher numbers indicate higher validity of the item. Negative values on this measure indicate that there is another construct that is assessed by the item in addition to the posited construct. Just as with PSA, there is no standard procedure for determining the critical value for this measure. The results of all of these analyses are presented in Table 1 (retained items are in bolded text).

Table 1. *Item Substantive Validity Coefficients*

Items and Intended Themes	CVR	PSA	CSV
Perform			
<b>It is important to me to know how to please men</b>	0.44	0.72	0.56
<b>It feels good to know that a man wants to have sex with me, regardless of whether I'm interested in him</b>	0.44	0.72	0.56
<b>I try to be seductive</b>	0.36	0.68	0.48
<b>I enjoy being wanted because I look sexy</b>	0.36	0.68	0.52
<b>I sometimes take advantage of my looks to get what I want</b>	0.36	0.68	0.52
<b>I enjoy being desired</b>	0.36	0.68	0.52
<b>I like to flirt.</b>	0.36	0.68	0.52
<b>I sometimes try to look sexy even when I don't feel sexy.</b>	0.36	0.68	0.52
<b>I enjoy imagining how it feels to be the object of someone's desire.</b>	0.36	0.68	0.52
<b>I like to look sexy when I go out</b>	0.36	0.68	0.52
<b>As a woman, I should flaunt what I have.</b>	0.36	0.68	0.48
<b>For me, looking sexy is a great way to get others interested in me</b>	0.36	0.68	0.52
<b>I like it when I am looked at more than the other girls in the room</b>	0.36	0.68	0.52
Being a turn on for others isn't important to me. (R)	0.20	0.60	0.40
In the moment, I might have sex with a man who desired me, even if I was not that into him.	0.12	0.56	0.28
I don't like it when others look at my cleavage (R).	0.08	0.54	0.29
I worry about showing too much of my body (R)	-0.44	0.28	-0.20
Suppress – Protect			
<b>I sometimes worry that I will be manipulated into having sex</b>	0.44	0.72	0.56
<b>I am responsible for protecting myself against getting pregnant</b>	0.44	0.72	0.56
<b>For me, I think that having sex is risky</b>	0.36	0.68	0.52
<b>For me, I think that having sex is dangerous</b>	0.36	0.68	0.52
<b>When I think about having sex, I worry about getting pregnant</b>	0.36	0.68	0.52
<b>When I think about having sex, I worry about getting a disease from my partner</b>	0.36	0.68	0.48
<b>I don't worry too much about the risks of having sex (R)</b>	0.36	0.68	0.48
<b>It is up to me protect myself against the risks of having sex</b>	0.36	0.68	0.52
<b>I sometimes worry that men will act interested in me just so that they can have sex with me.</b>	0.36	0.68	0.52
<b>I don't worry too much about being taken advantage of for sex (R)</b>	0.36	0.68	0.48
<b>I am responsible for protecting myself against getting a disease from a sexual partner</b>	0.36	0.68	0.52
I worry that I might feel used if I had sex.	0.28	0.64	0.44
I must do what I can to not be a victim of men's sexual desires	0.12	0.56	0.28
Suppress – Hide			

<b>I try not to give in to my sexual feelings</b>	0.36	0.68	0.52
<b>Expressing my sexual feelings might make me feel like I had done something wrong.</b>	0.36	0.68	0.52
<b>As a woman, I must suppress my own sexual feelings</b>	0.36	0.68	0.52
<b>Expressing my sexual feelings would make me feel bad or shameful</b>	0.36	0.68	0.52
<b>I feel comfortable expressing my own sexual feelings (R)</b>	0.36	0.68	0.44
<b>I often think that it is wrong for me to have sex.</b>	0.36	0.68	0.48
<b>I would feel embarrassed if someone thought I wanted to have sex.</b>	0.36	0.68	0.52
<b>To be a good woman, I must try to stay pure</b>	0.36	0.68	0.52
<b>As a woman, it is important for me to behave modestly.</b>	0.28	0.64	0.44
<b>If I had sex, I would not want anyone to know.</b>	0.28	0.64	0.44
<b>I don't really think about my own sexual feelings</b>	0.28	0.64	0.40
<b>For me, if I slept around I would feel that I was acting inappropriately.</b>	0.28	0.64	0.44
Being a good woman in our society means that I can't have sex whenever I want	0.20	0.60	0.36
For me, having sex might make me feel bad or shameful	0.20	0.60	0.40
I think it is okay to have sex whenever I'm in the mood. (R)	-0.04	0.48	0.16

Note: retained items are in bold. Negatively worded are followed by (R).

To narrow down my items, I examined whether the CVR was above the suggested critical value of .37. While only 4 items in the scale actually exceeded this critical value, there were a large number of items with a CVR of .36. Thus, I retained all items that had a CVR value of .36 or higher (Perform = 13 items; Protect = 11 items; Hide = 9 items). Because Hide had only 9 items and the other scales 11 or more, I sought to add more Hide items. Thus, for Hide, I also included items that had a CVR of at least 0.28 if the PSA was greater than .64 and the CSV was greater than .40, resulting in 12 retained Hide items. The items in bold in Table 1 represent the final items set of items.

## Discussion

The interviews lent support to the contention that women do receive messages about sexuality that correspond to Perform, Suppress - Protect, and Suppress - Hide. Thirty-six items were retained for inclusion in the scale based on women's perceptions that they would be effective in assessing the constructs of interest. The Q-sort technique is useful in identifying potential items and in terms of learning about how participants view the constructs. However, it does not address how respondents will rate themselves on these items and whether these ratings form 2 dimensions (i.e., Perform and Suppress) or 3 dimensions (i.e., Perform, Protect, and

Hide). Thus, Study 2 further refines the SAQ measure by examining its factor structure via exploratory factor analysis.

## **Study 2: Exploratory Factor Analysis**

### **Method**

#### **Participants**

Participants were 260 female undergraduates ( $M$  age = 19.32,  $SD$  = 1.76) attending The Pennsylvania State University who were recruited from the Psychology Department subject pool and received course credit for their participation. Participants who skipped questions on the SAQ were removed from the data, leaving 227 female ( $M$  age = 19.36,  $SD$  = 1.85) respondents in the final sample. Participants indicated that they were 97% exclusively or mostly heterosexual. The remaining 3% identified as bisexual ( $N$  = 3), mostly or exclusively gay/lesbian ( $N$  = 2), and curious ( $N$  = 2). Forty-seven percent indicated that they were in a romantic relationship (25% lasting 6 months or less; 29% lasting between 6 months and 1 year; 46% lasting longer than 1 year). Participants were 9.7% African American, 7.9% Asian/Pacific Islander, 74.0% Caucasian, 5.3% Latin@, and 3.1% biracial.

#### **Procedure**

In an online study, participants first completed demographic information. Then, I randomly assigned them based on their birth month to complete the SAQ in one of two order conditions where the items were randomized using a random number generator<sup>7</sup>. Prior to completing the SAQ, they read:

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<sup>7</sup> Item order had no effect on the pattern of results and so is not discussed further.

Next, you will see a series of statements about sex and sexuality. Please indicate your agreement with each of the following statements using the scale provided. We are interested in YOUR OWN opinions, not how you think others would answer or how you think a person should answer. Please answer each question as honestly and accurately as you can, but don't spend too much time thinking about each answer. Please respond to each item as if it were the only item. That is, don't worry about being 'consistent' in your responses. Questions that ask you about having sex are referring to sexual intercourse.

Refer to Table 2 for all items. Response options included: 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, 5 = *agree*, 6 = *strongly agree*. After completing the SAQ, participants completed a variety of exploratory personality measures. To ensure participant privacy, they did not enter any personally identifying information on the survey itself.

## Results

To examine the factor structure, I conducted an exploratory factor analysis (EFA) on the SAQ items using principle axis factoring with Varimax rotation. Using the Scree plot and criteria that eigenvalues should be greater than 1, there were 2 factors that fit with the broad constructs I was seeking to measure and accounted for at least 10% of the variance (see Table 2). These factors corresponded to Perform (Factor 1) and Suppress (Factor 2). All factor loadings on these two factors were high (greater than .40), and there were no cross-loadings between factors, indicating that the items were clearly linked with their intended construct.

Table 2. *EFA Factors, Items, and Factor Loadings*

Item	Factor 1	Factor 2
Eigenvalue (% variance accounted for)	8.96 (24.90)	4.77 (13.26)
<b>Perform Items</b>		
2. I enjoy being wanted because I look sexy.	.795	
12. I like it when I am looked at more than the other girls in the room.	.764	
8. I like to look sexy when I go out.	.762	
10. For me, looking sexy is a great way to get others interested in me.	.755	
6. I sometimes try to look sexy even when I don't feel sexy.	.731	
1. I try to be seductive.	.715	
13. It feels good to know that a man wants to have sex with me, regardless of whether I'm interested in him.	.645	



9. As a woman, I should flaunt what I have.	.622
3. I sometimes take advantage of my looks to get what I want.	.561
5. I like to flirt.	.556
7. I enjoy imagining how it feels to be the object of someone's desire.	.548
4. I enjoy being desired.	.546
11. It is important to me to know how to please men.	.541
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Suppress Items	
27. I often think that it is wrong for me to have sex.	.720
19. Expressing my sexual feelings might make me feel like I had done something wrong.	.718
17. Expressing my sexual feelings would make me feel bad or shameful.	.707
24. I try not to give in to my sexual feelings.	.692
20. To be a good woman, I must try to stay pure.	.684
15. As a woman, I must suppress my own sexual feelings.	.678
16. For me, I think that having sex is dangerous.	.660
23. I would feel embarrassed if someone thought I wanted to have sex.	.648
22. For me, I think that having sex is risky.	.582
18. As a woman, it is important for me to behave modestly.	.545
21. I don't really think about my own sexual feelings.	.521
26. I feel comfortable expressing my own sexual feelings.	-.501
25. If I had sex, I would not want anyone to know.	.431
14. For me, if I slept around I would feel that I was acting inappropriately.	.408
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Non-loading Items	
- I am responsible for protecting myself against getting a disease from a sexual partner.	
- I am responsible for protecting myself against getting pregnant.	
- It is up to me protect myself against the risks of having sex.	
- I sometimes worry that I will be manipulated into having sex.	
- I sometimes worry that men will act interested in me just so that they can have sex with me.	
- I don't worry too much about being taken advantage of for sex.	
- I don't worry too much about the risks of having sex.	
- When I think about having sex, I worry about getting a disease from my partner.	
- When I think about having sex, I worry about getting pregnant.	

Note: I did not report factor loadings that were less than +/- .30. Item numbers refer to the SAQ in Appendix D.

I did not find evidence that Hide and Protect should be conceptualized as separate factors, for Factor 2 contained both Hide and Protect items. It is important to note that the items that did not clearly load on any factor were 9 Protect items. These 9 Protect items appeared to represent several very specific concerns (i.e., feeling responsible for protecting oneself and concerns about being manipulated or taken advantage of for sex) that do not fit with broader factors capturing college women's attitudes about sexuality, and so they were dropped from subsequent analyses. Thus, for the SAQ, I retained 13 Perform and 14 Suppress items.

Next, I created composites by averaging across all of the retained Perform and Suppress items in Factor 1 and Factor 2. Please refer to Table 3 for scale alphas, correlations, and descriptive statistics. The Perform and Suppress subscales were reliable and were somewhat negatively correlated though distinct constructs.

Table 3: *Descriptive Statistics and Correlations*

	Perform	Suppress
Perform	$\alpha = .92$	
Suppress	$r = -.36^*$	$\alpha = .90$
Mean	4.12	3.07
SD	.87	.82

Note:  $*p < .001$

### Discussion

The data support the prediction that women endorse Perform and Suppress messages of sexual expression. First, the EFA reveals two factors. Indicating that Perform and Suppress are separable constructs. Furthermore, Perform and Suppress are moderately negatively correlated with each other, which suggests that they are related, but distinct constructs. Second, this modest negative correlation suggests that it is possible for a woman to endorse both constructs simultaneously, and thus potentially exhibit SA.

The analyses also indicate that for college women, Hide and Protect are better conceptualized as one general Suppress factor that consists predominately of Hide items. It is possible that a distinct Protect factor did not emerge in the present data for several reasons. First, while Protect messages are conveyed to young women in abstinence only-education, many media depictions of sexual expression typically do not address the physical consequences of sexual expression (Protect), but instead only depict the emotional/psychological costs such as

shame and regret (Suppress; Ward, 2003). Thus, the specific physical consequences of sexual expression (beyond risk and danger in general) might not be as salient to women. Second, my sample consisted of only college-aged women and no high school or middle school-aged women, which could explain why a Protect factor did not emerge. Protect messages conveyed via abstinence-only education are transmitted during middle and high school. Further, the media that college-aged women consume contains far fewer Protect messages (Kim & Ward, 2004; Ward, 2003) than does the media that high school and middle school aged women consume (Durham, 1998; Kim & Ward, 2004). Together, these factors could help to explain why Protect messages did not emerge as a distinct third factor.

Building upon this work, Study 3 had two goals. The first goal was to confirm the 2-factor structure of the SAQ in a college student sample using confirmatory factor analysis (CFA). The second goal was to examine the construct (convergent and discriminant) validity of the SAQ by examining the relationship between women's endorsement in Perform messages, Suppress messages, and both messages simultaneously (SA) with selected individual difference, attitude, and behavior measures. The purpose of this work is to not only establish construct validity, but also to examine the hypothesis that Perform and Suppress endorsement, and thus SA, are linked to harmful attitudes and behaviors.

### **Study 3: SAQ Factor Structure, Construct Validity, and Association with Sexual Attitudes and Behaviors**

In order to examine the hypothesized 2-factor structure and convergent and discriminant validity of the SAQ, I asked participants to complete the SAQ and a series of individual difference questionnaires that should be theoretically related to endorsement of Perform,

Suppress, and Sexual Ambivalence (SA). Below, I describe these measures and the hypothesized predictions for their links to Perform, Suppress, and SA. These predictions also are summarized in Table 4 (Perform, Suppress, and individual differences), Table 5 (SA and individual differences), and Table 6 (sexual attitudes, behaviors, and alcohol use). Tables 7 and 8 have sample items and other descriptive data for each of the measures.

Table 4. *Predicted Perform and Suppress Correlations with Individual Difference Measures*

Individual Difference Measures	Perform	Suppress
Concern With Opinions of Others		
Public Self-Consciousness	+	+
Contingencies of Self Worth – other’s approval	+	+
Concern With Appearance		
Contingencies of Self Worth – appearance	+	+
Objectified Body Consciousness – surveillance	+	+
Objectified Body Consciousness – body shame	+	+
Conservative, Religious, and Moral Values		
Contingencies of Self Worth – virtue	NR/-	+
Religiosity	NR/-	+
Moral Foundations Scale – purity	NR/-	+
Endorsement of Traditional Gender Roles		
Ambivalent Sexism Inventory – hostile	+	+
Ambivalent Sexism Inventory – benevolent	+	+
ASI total	+	+
Ambivalence Towards Men – hostile	+	+
Ambivalence Towards Men – benevolent	+	+
ATM total	+	+
MRN – status	+	+
MRN – toughness	+	+
MRN – anti-femininity	+	+
MRN – total	+	+
Sexual Self-Concept		
Sexual Self-Esteem - body esteem	NR/-	-
Sexual Self-Esteem – pleasure	NR/-	-
Sexual Self-Esteem – receiving	NR/-	-
Sexual Self-Esteem – giving	NR/-	-
Sexual Self-Esteem – safety	NR/-	-
Sexual Self-Esteem – general	NR/-	-
Sexual self-schema – romantic/passionate	NR/-	-
Sexual self-schema – open/direct sexuality	NR/+	-
Sexual self-schema – inhibited, embarrassed, conservative	NR/-	+
SSS – total	NR/-	-
Personality		
BIS (avoidance)	NR	+
BAS (approach)	+	NR
NEO – Extraversion	+	-
Aspiration Index – safety importance	NR	NR

Aspiration Index – safety chances	NR	-
Socially Desirable Responding		
Social Desirability	NR	NR

Note: NR indicates that I do not expect a correlation between subscale scores. Some cells depict competing predictions with the use of a forward slash, “/”.

Table 5. *Predicted SA Correlations with Individual Difference Measures*

Individual Difference Measures: Subjective Conflict	
	SA (Griffin)
Preference for Consistency	-
Ambivalence (Felt about sexuality)	+

Table 6. *Predicted Perform, Suppress, and SA Correlations with Sexual Attitudes, Behaviors, and Alcohol Use*

Individual Difference Measures	Perform	Suppress	SA (Griffin)
Sexual Attitudes and Behaviors			
Partners	+	-	
Casual sex attitudes	+	-	
Casual sex behaviors	+	-	
Protection behaviors	NR	NR	
Alcohol Use			
Sex while intoxicated	+	-	+
Binge drinking	+	-	+
Drinks per week	+	-	+

Note: NR indicates that I do not expect a correlation between subscale scores. Empty cells in the table denote no specific prediction.

**Concern with the opinions of others.** High Perform-endorsing women are concerned about the impressions that they make on others, particularly men, but also other women with whom they must compete for male attention. Similarly, high Suppress-endorsing women are concerned with hiding their sexual feelings and behaviors from others fear of shame or embarrassment. Thus, I predict that endorsement of Perform and Suppress would be positively associated with measures that assess being concerned with others opinions, such as Public Self-Consciousness (PSC; Fenigstein, Scheier, & Buss, 1975) and Contingencies of Self Worth Scale – Other’s Approval subscale (CSW; Crocker, Luhtanen, Cooper, & Bouvrette, 2003).

**Concern with appearance.** High Perform-endorsing women believe that it is important to maintain an attractive physical appearance, particularly for men, thus Perform should be

positively associated with concerns with one's own appearance, and particularly self-objectification. Conversely, while none of the Suppress items relate specifically to the attractiveness of a woman's physical appearance, Suppress messages do educate women that behaving modestly and ensuring that *others* do not think a woman is open to sexual contact based on her physical appearance is quite important. Thus, I predict that then Suppress will be positively associated with concerns about one's appearance. To assess concerns with one's appearance I included the following measures: the CSW Scale – Appearance subscale (Crocker et al., 2003) and the Surveillance and Body Shame subscales of the Objectified Body Consciousness Scale (OBC; McKinley & Hyde, 1996).

**Conservative, religious, and moral values.** Endorsement of Suppress should be positively related to holding conservative, religious, and moral values because high Suppress-endorsing women believe that they should be modest, pure, and morally virtuous. In contrast, the Perform items do not make any reference to such values, and thus would be either not related or negatively related to holding these values. To test these predictions I included the Virtue subscale of the CSW Scale (Crocker et al., 2003), the Purity subscale of the Moral Foundations Scale (MFS; Graham, Haidt, & Nosek, 2009), and an item that assessed the importance of religion in one's life (item taken from Impett, Schooler, & Tolman, 2006)

**Endorsement in traditional gender roles.** Endorsement of Suppress should be positively associated with holding traditional attitudes (both hostile and benevolent) towards both men and women because beliefs that women should Suppress their sexuality are very traditional in nature and serve to maintain patriarchy. Because I have also made the argument that Perform beliefs are actually not liberatory or empowering for women, and actually serve to keep women in their place as passive objects rather than as active subjects in society and

subordinate women's sexual desires relative to men's, I also predict positive associations between Perform beliefs and endorsement of traditional gender roles. To test these predictions, I included the Hostile (HS) and Benevolent Sexism (BS) subscales of both the Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996) and the Ambivalence Towards Men Scale (ATM; Glick & Fiske, 1999), as well as the Status, Toughness, and Anti-femininity subscales of the Male Role Norms Scale (MRN; Thompson & Pleck, 1986).

**Sexual self-concept.** Because endorsement of Suppress is consistent with hiding and feeling shameful or guarded about sexual expression, I expected that it would be associated with holding negative views of oneself as a sexual person and of being a sexual partner. I have argued that while Perform is portrayed by the media as a “sex positive” form of sexual expression, it is actually harmful for women, or at least cannot be conceptualized as beneficial. That is, endorsement of Perform is consistent with being concerned that one has a desirable sexual appearance and knows how to please others, particularly men, rather than how comfortable and desiring one actually feels. Thus, I predict that in general, Perform would be unrelated, or negatively related, to holding positive views of oneself as a sexual person and of being a sexual partner. However, because Perform messages advocate very overt expressions of sexual availability, I also expect Perform to be somewhat positively correlated with open/direct sexuality and somewhat negatively correlated with inhibited/embarrassed sexuality. To examine these predictions, I included several scales, including Sexual Self-Esteem – Body Esteem, Pleasure, Receiving, Giving, Safety, and General subscales (SSE<sup>8</sup>; Gaynor & Underwood, 1995) and Sexual Self-Schema – Romantic/passionate, Open/direct sexuality,

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<sup>8</sup> This scale also has a Fantasy subscale. However, the reliability for this scale was so low ( $\alpha = .10$ ) that I did not include it in the analyses.

Inhibited/embarrassed/conservative, and Overall subscales (SSS; Andersen & Cyranowski, 1994). All subscales of the SSE scale and the Romantic/passionate and Open/direct sexuality subscales of the SSS can be conceptualized as having a positive view of oneself in sexual situations and positive sexual outcomes. The Inhibited/embarrassed/conservative subscale of the SSS can be conceptualized as having a negative view.

**Personality.** Because Perform and Suppress beliefs can be conceptualized as approaching and avoiding sexual expression, respectively, I included a trait measure of behavioral approach and avoidance tendencies (BIS/BAS; Carver & White, 1994) to test these predictions.

In order to differentiate Perform tendencies from trait extraversion and Suppress tendencies from a lack of trait extraversion, I also include a trait measure of Extraversion (John & Srivastava, 1999). I predicted that Perform would be somewhat positively associated with trait Extraversion and that Suppress would be somewhat negatively associated with trait extraversion.

I expected that Suppress and Perform would not be related to beliefs about the importance of obtaining personal safety, because women would believe in general that being safe is an important concern. However, because Suppress beliefs emphasize hypervigilance towards threats against safety, I expected Suppress to have a negative association with beliefs in ones chances of obtaining personal safety, whereas I did not expect that Perform would be related these beliefs. To test these predictions I included the Safety subscale of the Aspiration Index (AI; Grouzet, et al., 2004), which assesses perceptions that safety is an important concern and one's chances of obtaining their desired level of safety.



**Social desirability.** To provide evidence that participants were not engaging in socially desirable responding, I also include a measure of social desirability (Social Desirability Scale; Marlow & Crowne, 1961). I predicted that Perform and Suppress attitudes would be unrelated to this measure.

**Subjective conflict.** To test the prediction that SA would be positively related to the experience of psychological conflict, I included the Preference for Consistency Scale (PFC; Cialdini, Trost, & Newsom, 1995) and a scale to measure subjective feelings of conflict about sexual expression, which was patterned after the Ambivalence subscale of the Bivariate Evaluations and Ambivalence Measures (BEAMs; Cacioppo, Gardner, & Berntson, 1997). I predicted that SA would be negatively correlated with PFC because people who prefer consistency should be less likely to hold conflicting attitudes. I predicted that SA would be positively correlated with the Felt Ambivalence measure because people who have conflicting Perform and Suppress attitudes should be more likely to feel uncomfortable and conflicted about how to negotiate sexual expression.

**Sexual attitudes, behaviors, and alcohol use.** Overall I would expect that endorsement of Suppress beliefs would be related to engaging in fewer sexual behaviors and less alcohol use because Suppress beliefs are about feeling negatively and avoidant towards sexual expression and any behavior that might facilitate risky sexual choices (i.e., alcohol use). Conversely, I would expect the endorsement of Perform beliefs would be related to engaging in more sexual behaviors and possibly more alcohol use, as Perform beliefs are about proving ones sexual desirability and satisfying the desires of male partners. Stereotypes of men, particularly men on college campuses that fit with a “hookup culture” climate (Bogle, 2008; Kimmel, 2009), would promote the idea that men are very interested in sex and the co-occurrence of sex and alcohol use.

I did not, however, predict that Perform and Suppress beliefs would have any association with the use of protection behaviors (i.e., using condoms). For high Suppress women who are not having much sexual contact or would likely say that they would use protection were they to engage in sexual contact, there would likely be minimal variability in protection behaviors. And while Perform may promote sexual behaviors more broadly, it would not necessitate that these behaviors are always risky (i.e., unprotected sex). In addition, many of the women I interviewed in Study 1 indicated that the majority of women they know are on some form of hormonal birth control to help reduce the risk of pregnancy regardless of whether or not they are having sexual contact.

Finally, because I have argued that decision-making for high SA women is largely based on the presence of situational cues that create attitude polarization, it is difficult to predict which situational cues would be most prevalent across different sexual situations for ambivalent women. Thus, I did not have specific predictions about how SA would be related to women's number of sexual partners, attitudes about casual sex, casual sex behavior, or protection behaviors. However, because previous research indicates that many people self medicate with alcohol to dampen experiences of stress (e.g., Steele & Josephs, 1990), I predicted that SA might be positively associated with alcohol use and having sex while intoxicated.

## **Method**

### **Participants**

Participants were 685 female undergraduates attending the Pennsylvania State University ( $M$  age = 18.75,  $SD$  = 1.74) who were recruited from the Psychology Department subject pool and received course credit for participation. Participants were 97.1% exclusively or mostly

heterosexual ( $N = 665$ ). The remaining 3% identified as bisexual ( $N = 5$ ), mostly or exclusively gay/lesbian ( $N = 3$ ), curious ( $N = 4$ ), questioning ( $N = 3$ ), other ( $N = 1$ ), or preferred not to label themselves ( $N = 4$ ). They reported having on average 2.41 ( $SD = 3.52$ ) sexual partners.

Participants indicated that 40.7% were in a romantic relationship (31.1% lasting 6 months or less; 19.4% lasting between 6 months and 1 year; 49.4% lasting longer than 1 year). Participants were 5.4% African American, 6.1% Asian/Pacific Islander, 80.3% Caucasian, 4.5% as Latin@, 3.4% biracial, and .3% other.

## **Procedure**

Participants first completed the demographic questions, which assessed their age, gender, year in school, race/ethnicity, sexual orientation, number of sexual partners, and relationship status. Next they completed the SAQ (see Appendix D). I created 3 different orders of the SAQ and randomly assigned participants to complete 1 of 3 orders: Perform items followed by Suppress items, Suppress items followed by Perform items, and a Mixed item order that alternated between Perform and Suppress items. The order of item presentation did not substantively influence the pattern of results and so is not discussed further.

Afterwards, participants completed the questionnaires described above. These questionnaires were presented in a random order and all participants completed the questionnaires in the same order. I created composite scores by averaging across all items comprising each scale unless otherwise specified. Please refer to Table 7 (individual difference measures) and Table 8 (sexual attitudes, behaviors, and alcohol use) for a summary of all measure alphas, means, and standard deviations. Please refer to Appendix E for a list of all measures and instructions.

Table 7. Individual Difference Measure Scale Alphas, Means, and Standard Deviations

Individual Difference Measures	Sample Item	Scale	$\alpha$ (items)	Mean (SD)
Concern With Opinions of Others				
Public Self-Consciousness	I'm concerned about the way I present myself	0-4 <sup>g</sup>	.83 (7)	2.69 (.75)
Contingencies of Self Worth – other's approval	I can't respect myself if others don't respect me	1-7 <sup>h</sup>	.79 (5)	4.31 (1.14)
Concern With Appearance				
Contingencies of Self Worth – appearance	When I think I look attractive, I feel good about myself	1-7 <sup>h</sup>	.75 (5)	4.88 (.98)
Objectified Body Consciousness - surveillance	During the day, I think about how I look many times	1-7 <sup>h</sup>	.80 (8)	4.67 (.95)
Objectified Body Consciousness – body shame	I feel ashamed of myself when I haven't made the effort to look my best	1-7 <sup>h</sup>	.85 (8)	3.77 (1.21)
Conservative, Religious, and Moral Values				
Contingencies of Self Worth – virtue	I couldn't respect myself if I didn't live up to a moral code	1-7 <sup>h</sup>	.85 (5)	4.71 (1.10)
Religiosity	How important is religion in your life?	1-4 <sup>i</sup>	-- (1)	2.51 (1.00)
Moral Foundations Scale – purity <sup>a</sup>	Chastity is still an important virtue for teenagers today, even if many don't think it is	1-6 <sup>h</sup>	.69 (4)	3.34 (1.00)
Endorsement of Traditional Gender Roles				
Ambivalent Sexism Inventory – hostile	Women seek to gain power by getting control over men.	0-5 <sup>h</sup>	.80 (11)	2.29 (.72)
Ambivalent Sexism Inventory – benevolent	Many women have a quality of purity that few men possess	0-5 <sup>h</sup>	.79 (11)	2.52 (.75)
ASI total	--	--	.90	2.40 (.62)
Ambivalence Towards Men – hostile	A man who is sexually attracted to a woman typically has no morals about doing whatever it takes to get her into bed	0-5 <sup>h</sup>	.86 (10)	2.31 (.91)
Ambivalence Towards Men – benevolent	Even if both members of a couple work, a woman ought to be more attentive to taking care of her man at home	0-5 <sup>h</sup>	.84 (10)	2.17 (.92)
ATM total	--	--	.90	2.24 (.81)
MRN – status <sup>a</sup>	Success in his work has to be man's central goal in this life	1-7 <sup>h</sup>	.91 (11)	4.02 (1.12)
MRN – toughness <sup>a</sup>	Fists are sometimes the only way to get out of a bad situation	1-7 <sup>h</sup>	.81 (8)	3.56 (1.01)
MRN – anti-femininity <sup>a</sup>	It is a bit embarrassing for a man to have a job that is usually filled by a woman	1-7 <sup>h</sup>	.86 (7)	3.46 (1.16)
MRN– total <sup>a</sup>	--	--	.92	3.72 (.91)
Sexual Self-Concept				
Sexual Self-Esteem - body esteem <sup>b</sup>	I like and appreciate my body sexually	1-4 <sup>h</sup>	.82 (5)	2.52 (.67)
Sexual Self-Esteem – pleasure <sup>b</sup>	I love the body tingles and thrills involved with sex	1-4 <sup>h</sup>	.62 (5)	2.88 (.57)
Sexual Self-Esteem – receiving <sup>b</sup>	I love to have my body stroked and cuddled by a partner	1-4 <sup>h</sup>	.79 (5)	3.41 (.52)
Sexual Self-Esteem – giving <sup>b</sup>	One of my delights in sex is the pleasure I give to my partner	1-4 <sup>h</sup>	.74 (5)	3.15 (.57)
Sexual Self-Esteem – safety <sup>b</sup>	I feel safe when I am in a sexual situation	1-4 <sup>h</sup>	.59 (5)	2.85 (.56)
Sexual Self-Esteem – general <sup>b</sup>	I have high sexual self-esteem	1-4 <sup>h</sup>	.71 (5)	3.12 (.55)
Sexual self-schema – romantic/passionate <sup>acd</sup>	loving, arousable, revealing	0-6	.88 (9)	4.15 (1.03)
Sexual self-schema – open/direct sexuality <sup>acd</sup>	uninhibited, open-minded, straightforward	0-6	.86 (8)	3.33 (1.06)
Sexual self-schema – inhibited, embarrassed, conservative <sup>acd</sup>	conservative, timid, self-conscious	0-6	.85 (7)	2.79 (1.34)
SSS– total <sup>ade</sup>	--	--	--	4.68 (2.53)

Personality				
BIS (avoidance)	I worry about making mistakes	1-4 <sup>j</sup>	.75 (7)	3.13 (.50)
BAS (approach)	I crave excitement and new sensations	1-4 <sup>j</sup>	.82 (13)	3.09 (.38)
NEO – Extraversion <sup>a</sup>	I see myself as someone who is outgoing, sociable	1-5 <sup>h</sup>	.86 (8)	3.39 (.77)
Aspiration Index – safety importance <sup>a</sup>	I will have few threats to my personal safety	1-9 <sup>k</sup>	.75 (4)	6.85 (1.67)
Aspiration Index – safety chances <sup>a</sup>	I will have few threats to my personal safety	1-9 <sup>l</sup>	.74 (4)	6.37 (1.34)
Socially Desirable Responding				
Social Desirability	I never hesitate to go out of my way to help someone in trouble.	0-1 <sup>m</sup>	.74 (33)	.46 (.15)
Subjective Conflict				
Preference for Consistency <sup>a</sup>	It is important to me that my actions are consistent with my beliefs	1-9 <sup>h</sup>	.91 (18)	5.40 (1.03)
Ambivalence (Felt about sexuality) <sup>acf</sup>	torn, conflicted, certain(r)	1-5	.91 (13)	2.41 (.79)

Note: all scales are calculated such that higher mean scores reflect higher scores on the scale.

a. Denotes scales for which there was missing data that resulted in a reduced N ranging from 117 to 164. N = 685 for the majority of the scales.

b. Note that I modified the instructions slightly by instructing participants to select N (*Does not apply*) from the scale if they had not had sex and felt that the item did not apply to them. I reasoned that participant responses to items that did not apply to their experience would make interpreting the correlations very difficult, and so chose to treat this as missing data so that it would not influence the correlations. Scale endpoint labels were “strongly disagree” to “strongly agree.”

c. Participants could select N (*not sure what this word means*) on the scale, in which case their data was treated as missing, to increase interpretability.

d. I modified the instructions of this scale because the original instructions did not make any reference to people’s views of themselves in sexual situations. That is, I reasoned that it would be possible for a person to describe herself as “uninhibited,” for instance, in certain contexts (e.g., workplace vs. social), but not in others and wanted to ensure that participants were thinking about themselves in sexual contexts. In addition, I also wanted to give participants an option to indicate that they did not know what a particular adjective on the scale meant in order to minimize issues with interpretability. To that end, participants received the following instructions “Many of us have different views and perceptions of ourselves in separate areas and contexts of our lives: in academic/school contexts, in social contexts, in work/professional contexts, etc. Right now we would like you to think about the way you see yourself in **sexual contexts**. This can include your typical thoughts, feelings, and behaviors. Please focus on your OWN perceptions of yourself rather than others’ perceptions of you. You will see a series of adjectives. For each word, consider whether or not the term describes the way you typically see yourself in sexual contexts. Choose a number from the scale below to indicate how accurately each adjective describes you in sexual contexts. There are no right or wrong answers. Please be thoughtful and honest. (If you are unsure what a particular word means, please select “N” on the scale.)” Scale endpoints ranged from “not at all descriptive of me in sexual contexts” to “very descriptive of me in sexual contexts.

e. Once composites for each subscale are created, an overall measure is calculated by summing composites on the first two subscales and then subtracting the third (romantic/passionate + open/direct – inhibited/embarrassed/conservative).

f. Participants received the following instructions: “For the next series of questions, please try to visualize or imagine how you feel in typical sexual situations involving yourself and a partner. A sexual situation can be any situation involving sexual contact such as heavy kissing to more intimate contact such as oral sex or sexual intercourse. If you have never been in a sexual situation with a partner, please try to imagine how you might feel. Use the scale provided to indicate the extent to which each of the following words describes your own feelings about yourself in typical sexual situations. (If you are unsure what a particular word means, please select “N” on the scale.) *In sexual situations, I typically feel \_\_\_\_\_.*” Scale endpoint labels were “very slightly or not at all” to “extremely.”

g. Scale endpoint labels were “extremely uncharacteristic” to “extremely characteristic.”

h. Scale endpoint labels were “strongly disagree” to “strongly agree.”

i. Scale endpoint labels were “not at all” to “very.”

j. Scale endpoint labels were “very false for me” to “very true for me.”

- k. Scale endpoint labels were “not at all” to “extremely.”  
 l. Scale endpoint labels were “very low” to “very high.”  
 m. Scale endpoint labels were “false” to “true.”

Table 8. *Sexual Attitudes, Behaviors, and Personality Measure Scale Alphas, Means, and Standard Deviations*

Sexual Attitudes and Behaviors	Sample Item	Scale	$\alpha$ (items)	Mean (SD)
Partners	With how many partners have you had sex (sexual intercourse)?	OE	-- (1)	2.41 (3.52)
Relationship Status <sup>a</sup>	Are you currently in a romantic relationship?	1-4	-- (1)	1.89 (1.21)
Casual sex attitudes <sup>b</sup>	I can imagine myself being comfortable and enjoying “casual” sex with different partners	1-7	.62 (2)	2.73 (1.55)
Casual sex behaviors	With how many partners have you had sex <i>on one and only one</i> occasion?	OE	-- (1)	1.00 (1.90)
Protection behaviors <sup>c</sup>	I <i>always</i> use condoms when I have sex with a new partner	0-3	.92 (3)	2.37 (.89)
Sex while intoxicated <sup>c</sup>	Within the past year, how often have you had sexual intercourse while intoxicated?	0-3	-- (1)	.80 (.88)
Binge drinking <sup>d</sup>	Think back over the last 2 weeks. How many times have you had 5 or more drinks* in one sitting?	1-6	-- (1)	2.34 (1.32)
Drinks per week	What is the average number of drinks you consume <i>in a week</i> ?	OE	-- (1)	5.58 (5.84)

Note: the N ranged from 145-155. OE refers to the fact that participants gave an open-ended response to the question.

a. Responses were coded on the following scale: 1 (*No*), 2 (*Yes-6 months or less*), 3 (*Yes-between 6 months and 1 year*), to 4 (*Yes-greater than 1 year*)

b. Scale endpoint labels were “strongly disagree” to “strongly agree.”

c. Responses were coded on the following scale: 0 (*never*), 1 (*sometimes*), 2 (*usually*), to 3 (*always*)

d. A drink was defined as: “A drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.” Responses were coded on the following scale: 1 (*none*), 2 (*once*), 3 (*twice*), 4 (*3-5 times*), 5 (*6-9 times*), 6 (*10 or more times*)

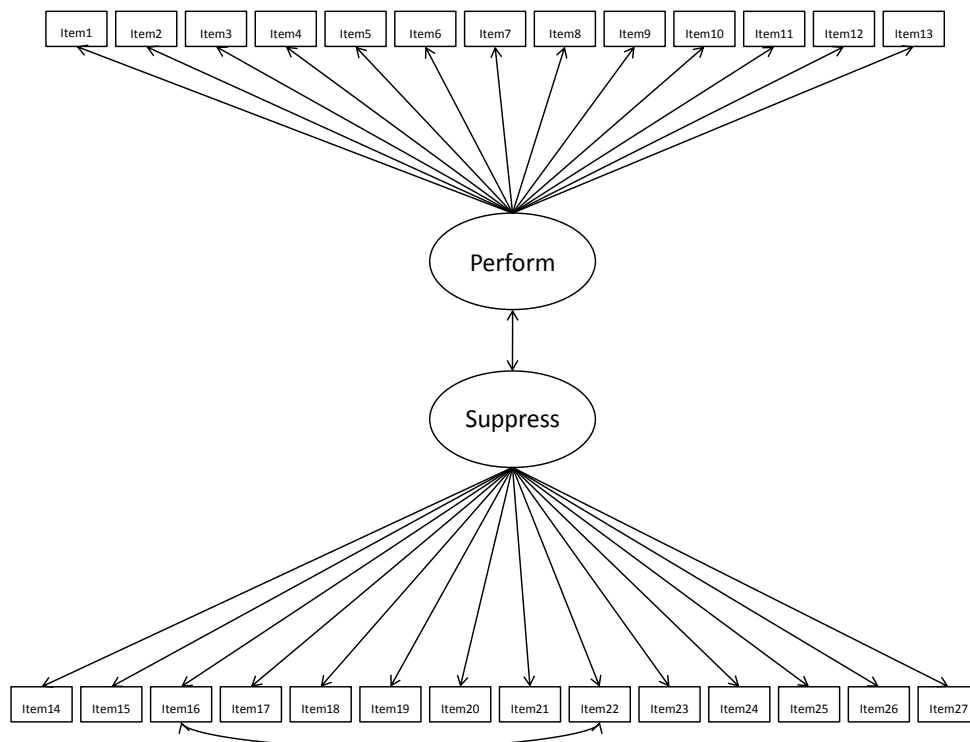
## Results

### Factor Structure

**The hypothesized model.** I first tested whether the hypothesized two factor model Perform and Suppress, fit the data. I tested the fit using SEM with maximum likelihood estimation; AMOS 19.0 (Arbuckle, 2010). The tested model is depicted in Figure 1, where circles represent latent variables, and rectangles represent measured variables. Note that error terms are not represented in the model for ease of presentation. Thirteen items were indicators of the latent variable Perform and 14 items were indicators of Suppress. The two factors were hypothesized to covary with one another. In addition, because two of the items on the Suppress

subscale have similar wording (“For me, I think that having sex is risky/dangerous”; Items 16 and 22), I predicted that these items would be associated in the CFA and allowed their error terms to covary.

Figure 1. *Hypothesized 2-Factor Model*



**Model estimation.** I examined the hypothesized 2-factor model and found that it did not fit the data well, ( $\chi^2(322) = 1475.62, p < .001$ ; RMR = .101, CFI = .870, RMSEA = .072, TLI = .858), as only the RMSEA meet the criteria for acceptable fit<sup>9</sup>. However, this fit was considerably better than the one found for a 1-factor model, ( $\chi^2(323) = 4367.16, p < .001$ ; RMR

<sup>9</sup> An RMR of less than .10 (Brown, 2006; Quintana & Maxwell, 1999), a CFI greater than .90 (Brown, 2006; Hu & Bentler, 1999), a TLI greater than .90 (Brown, 2006), and an RMSEA between .05 and .08 (Brown, 2006; Kline, 2005) indicate that the model has an acceptable fit. Both Brown (2006) and Kline (2005) advocate examining several indices, as converging evidence from several indices makes for a stronger assessment of model fit.

= .296, CFI = .543, RMSEA = .135, TLI = .404). I then conducted post hoc model modifications in an attempt to develop a better fitting and possibly more parsimonious model. An examination of the modification indices indicated that the model fit would be much improved by allowing the error terms to covary between several of the indicator variables. Before allowing any of the error terms to covary, I examined the items to ensure that there were conceptual and theoretical reasons to allow them to covary (i.e., similar wording or item content) to avoid linking items that would likely not be associated if I tried to replicate the final model in a separate sample (Brown, 2006).<sup>10</sup> Using this procedure, 4 additional item pairs were allowed to covary. Chi-squared difference tests (Brown, 2006) revealed that each successive change to the model significantly improved fit compared to the previous model. The final model fit was:  $\chi^2(318) = 1253.44, p < .001$ ; RMR = .098, CFI = .894, RMSEA = .066, TLI = .883. The RMR and RMSEA indicate acceptable model fit (Brown, 2006; Kline, 2005; Quintana & Maxwell, 1999), though ideally the CFI and TLI would be greater than .90. I judged these as indicating acceptable fit of the model given that 2 of the 4 indices suggest acceptable fit, the model is solidly grounded in theory, the model is consistent with the EFA, and the model is quite complex<sup>11</sup> (i.e., contains 27 indicators). Refer to Table 9 for all standardized regression estimates in the final model. Questionnaire items can be found in Appendix D.

Table 9. *Standardized Regression Weights and Covariances for Final Model*

Path	Item	Standardized Beta/Covariance
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<sup>10</sup> Modification indices suggesting that particular items might be assessing the same underlying construct could be considered grounds for removing one of the items such that only one item remains to measure that construct. I also examined model fit by dropping one item from the pairs of items depicted in Table 9. Doing so did not improve model fit and so all items were retained.

<sup>11</sup> Weston & Gore (2006) suggest that it may be acceptable to use less stringent criteria for models that are quite complex.



Perform-Suppress		-.23
		Perform
Item1-Perform	I try to be seductive.	.62
Item2-Perform	I enjoy being wanted because I look sexy.	.76
Item3-Perform	I sometimes take advantage of my looks to get what I want.	.61
Item4-Perform	I enjoy being desired.	.69
Item5-Perform	I like to flirt.	.58
Item6-Perform	I sometimes try to look sexy even when I don't feel sexy.	.62
Item7-Perform	I enjoy imagining how it feels to be the object of someone's desire.	.61
Item8-Perform	I like to look sexy when I go out.	.72
Item9-Perform	As a woman, I should flaunt what I have.	.64
Item10-Perform	For me, looking sexy is a great way to get others interested in me.	.76
Item11-Perform	It is important to me to know how to please men.	.67
Item12-Perform	I like it when I am looked at more than the other girls in the room.	.78
Item13-Perform	It feels good to know that a man wants to have sex with me, regardless of whether I'm interested in him.	.64
Item1-Item2		.26
Item9-Item10		.21
		Suppress
Item14-Suppress	For me, if I slept around I would feel that I was acting inappropriately.	.31
Item15-Suppress	As a woman, I must suppress my own sexual feelings.	.54
Item16-Suppress	For me, I think that having sex is dangerous.	.63
Item17-Suppress	Expressing my sexual feelings would make me feel bad or shameful.	.73
Item18-Suppress	As a woman, it is important for me to behave modestly.	.58
Item19-Suppress	Expressing my sexual feelings might make me feel like I had done something wrong.	.74
Item20-Suppress	To be a good woman, I must try to stay pure.	.74
Item21-Suppress	I don't really think about my own sexual feelings.	.58
Item22-Suppress	For me, I think that having sex is risky.	.61
Item23-Suppress	I would feel embarrassed if someone thought I wanted to have sex.	.70
Item24-Suppress	I try not to give in to my sexual feelings.	.73
Item25-Suppress	If I had sex, I would not want anyone to know.	.68
Item26-Suppress	I feel comfortable expressing my own sexual feelings.	-.48
Item27-Suppress	I often think that it is wrong for me to have sex.	.73
Item14-Item18		.30
Item16-Item22		.57
Item17-Item19		.26

Note: All  $p$ 's < .001. Standardized betas are reported for all indicators and the appropriate latent construct. Covariances are reported for the association between indicator variables for which the error terms were allowed to covary and for the path between Perform and Suppress.

### SAQ Descriptive Data

The alpha reliabilities for the Perform ( $\alpha = .91$ ) and Suppress ( $\alpha = .90$ ) subscales were very high, and participants endorsed Perform ( $M = 4.03$ ,  $SD = .87$ ) more than Suppress messages ( $M = 3.12$ ,  $SD = .88$ ;  $t(684) = 17.34$ ,  $p < .001$ ). Perform and Suppress scores were once again moderately correlated ( $r(685) = -.26$ ,  $p < .001$ ) indicating that they are distinct constructs. Next,

I standardized<sup>12</sup> participant Perform and Suppress scores and used the Griffin Formula (Thompson et al., 1995) to calculate ambivalence (SA) scores. This formula is commonly used and takes into account both the similarity and the intensity of ratings for each component of the attitude. The formula is:

$$\frac{P + S}{2} - |P - S|$$

where  $P$  refers to an individual's Perform score and  $S$  refers to her Suppress score. Higher scores reflect more ambivalence and lower scores reflect a more polarized attitude. That is, women who are either high in Perform and low in Suppress or high in Suppress and low in Perform would receive the same low score. SA scores ranged from:  $M SA = -1.23$ ,  $SD = 1.21$ ,  $MIN = -6.3$ ;  $MAX = 1.97$ .

### **Convergent and Discriminant Validity**

I next examined the convergent and discriminant validity of the Perform and Suppress constructs. To examine the links between Perform, Suppress, and SA with the various personality measures I conduct two types of analyses. First, I report the partial correlations, that is how Perform is correlated with the individual difference measures, controlling for Suppress, and then how Suppress is correlated with the individual difference measures controlling for Perform. I also report the correlation between SA and each measure (see Tables 10 and 11). Recall that I only made predictions for how Perform and Suppress would be related to the majority of the individual difference measures (excepting subjective conflict); for how SA would

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<sup>12</sup> I standardized Perform and Suppress scores prior to calculating Griffin scores in order to aid in interpretability and ensure that participant endorsement of Perform over Suppress beliefs would not influence the pattern of results. That is, by standardizing, Perform and Suppress scores would now be relative to the mean on the applicable subscale, thereby accounting for the fact that these means differed prior to standardization.

be related to measures of subjective conflict; and for how all would be related to sexual attitudes, behaviors, and alcohol use. I reported all associations for completeness and to facilitate interpretation. The majority of the key predictions were supported and are described in detail below (results that support predictions are in bold text in Tables 10 and 11). In order to examine the extent to which SA predicts each outcome after controlling for Perform and Suppress scores, I also conducted a stepwise regression analysis for each outcome measure, which is also depicted in Tables 9 and 10. In describing the pattern of associations below, note that I first describe how Perform, Suppress, and SA were associated with each of the outcomes and whether these associations were consistent with predictions. Then I describe how the regression analyses examining the unique predictive power of SA over Perform and Suppress attitudes contributes to our understanding of these patterns.

Table 10. *Individual Difference Variable Correlations and Regression Analysis*

SAQ Subscales	Partial Correlation		Correlation	Regression
	Perform	Suppress	SA (Griffin)	SA (Griffin)
Concern With Opinions of Others				
Public Self-Consciousness	<b>.37***</b>	<b>.22***</b>	.20***	-.03
Contingencies of Self Worth – other’s approval	<b>.22***</b>	<b>.20***</b>	.18**	.05
Concern With Appearance				
Contingencies of Self Worth – appearance	<b>.36***</b>	<b>.12**</b>	.14***	-.08
Objectified Body Consciousness - surveillance	<b>.36***</b>	<b>.04</b>	.17***	-.01
Objectified Body Consciousness – body shame	<b>.22***</b>	<b>.27***</b>	.17***	.01
Conservative, Religious, and Moral Values				
Contingencies of Self Worth – virtue	<b>-.01</b>	<b>.36***</b>	.08*	-.01
Religiosity	<b>.01</b>	<b>.34***</b>	.08*	-.02
Moral Foundations Scale – purity	<b>.06</b>	<b>.44***</b>	.06	-.14
Endorsement of Traditional Gender Roles				
Ambivalent Sexism Inventory – hostile	<b>.20***</b>	<b>.24***</b>	.13**	-.03
Ambivalent Sexism Inventory – benevolent	<b>.23***</b>	<b>.30***</b>	.18***	.01
ASI total	<b>.26***</b>	<b>.32***</b>	.19***	-.01
Ambivalence Towards Men – hostile	<b>.24***</b>	<b>.31***</b>	.15***	-.05
Ambivalence Towards Men – benevolent	<b>.25***</b>	<b>.32***</b>	.17***	-.03
ATM total	<b>.28***</b>	<b>.35***</b>	.18***	-.04
MRN – status	.11	<b>.25**</b>	-.05	-.26**
MRN – toughness	<b>.21**</b>	.11	.04	-.13
MRN – anti-femininity	<b>.30***</b>	.13	.07	-.16
MRN – total	<b>.23**</b>	<b>.21**</b>	.01	-.23**
Sexual Self-Concept				

Sexual Self-Esteem - body esteem	<b>-.08*</b>	<b>-.27***</b>	-.12**	-.02
Sexual Self-Esteem – pleasure	.28***	<b>-.46***</b>	.00	.04
Sexual Self-Esteem – receiving	.12**	<b>-.33***</b>	-.08	.01
Sexual Self-Esteem – giving	.10*	<b>-.39***</b>	-.14***	-.04
Sexual Self-Esteem – safety	<b>.02</b>	<b>-.54***</b>	-.15***	.03
Sexual Self-Esteem – general	.20***	<b>-.52***</b>	-.07	.03
Sexual self-schema – romantic/passionate	<b>.09</b>	<b>-.21**</b>	.00	.03
Sexual self-schema – open/direct sexuality	<b>.15</b>	<b>-.32***</b>	-.13	-.16
Sexual self-schema – inhibited, embarrassed, conservative	<b>.00</b>	<b>.54***</b>	.22**	.09
SSS – total	<b>.11</b>	<b>-.51***</b>	-.17*	-.10
Personality				
BIS (avoidance)	<b>.07</b>	<b>.19***</b>	.11**	.04
BAS (approach)	<b>.39***</b>	<b>-.07</b>	.12**	-.06
NEO – Extraversion	.14	<b>-.22**</b>	-.02	-.03
Aspiration Index – safety importance	.05	-.03	-.09	-.15
Aspiration Index – safety chances	.06	<b>-.18*</b>	-.16*	-.21*
Socially Desirable Responding				
Social Desirability	-.29***	<b>.02</b>	-.18***	-.07
Subjective Conflict				
Preference for Consistency	-.06	.35***	.01	-.10
Ambivalence (Felt about sexuality)	.22**	.52***	<b>.29***</b>	.08

Note: Sig: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . Results that are consistent with predictions are in bold text. Note that for the stepwise regressions, Perform, Suppress and SA were all centered and entered as predictors. Values are standardized Beta weights.

Table 11. *Sexual Attitudes, Behaviors, and Alcohol Use Correlations and Regression Analysis*

Sexual Attitudes and Behaviors	Partial Correlations		Correlation	Regression
	Perform	Suppress	SA (Griffin)	SA (Griffin)
Partners	<b>.12**</b>	<b>-.28***</b>	-.12**	-.15***
Relationship Status	-.13**	-.13**	-.13**	-.06
Casual sex attitudes	<b>.33***</b>	<b>-.27**</b>	-.11	-.28**
Casual sex behaviors	<b>.32***</b>	<b>-.27**</b>	-.21*	-.38***
Protection behaviors	<b>-.08</b>	<b>-.04</b>	.04	.12
Sex while intoxicated	<b>.25**</b>	-.13	-.02	-.14
Binge drinking	<b>.29***</b>	<b>-.28***</b>	.08	.04
Drinks per week	<b>.45***</b>	<b>-.19*</b>	.11	-.08

Note: N = 685 for most questionnaires. Sig: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . Values under Perform and Suppress are partial correlations controlling for the other construct (i.e., Perform controlling for Suppress). Other values are either correlations or standardized beta weights from a regression analysis as specified in the table. Note that for the stepwise regressions, Perform and Suppress were centered and entered into step one as predictors; and SA (the centered Griffin score), Perform, and Suppress were all entered into step two as predictors.

**Concern with the opinions of others.** Consistent with predictions, Perform and Suppress were positively correlated with being concerned with the opinions of others. SA was also positively associated with concerns about the opinions of others, likely because both Perform and Suppress were positively associated with these measures.

**Concern with appearance.** Consistent with predictions that women who endorse Perform messages would be concerned with maintaining an attractive appearance, Perform was positively associated with all measures assessing appearance concerns. Consistent with the idea that women who endorse Suppress messages would also be concerned with the appearance of their bodies, Suppress was also positively associated with body shame and appearance-contingent self-worth. SA was also associated with these measures, likely because of the strong positive associations between either Perform only or both Perform and Suppress with these measures.

**Conservative, religious, and moral values.** As predicted, Suppress, but not Perform, was positively related to holding conservative, religious, and moral values because Suppress messages alone promote the idea that women should be morally virtuous. SA followed the pattern of Suppress correlations, likely because Suppress was strongly associated with these measures. However, it should be noted that the associations with SA were very small and likely would not have been significant with a smaller sample size.

**Endorsement in traditional gender roles.** As both Suppress and Perform messages reinforce traditional gender roles, the prediction that Suppress and Perform would be positively associated with endorsement of traditional gender roles was confirmed. These positive associations were consistent across all of the subscales that measured endorsement of traditional attitudes about women, but there was more variability with respect to endorsement of traditional attitudes about men. Perform was positively associated with all of the MRN subscales except for status, while Suppress scores were only positively associated with the status subscale and overall male role endorsement. This suggests that while high Perform women believe that men should be tough and anti-feminine, they do not believe that men should have higher status than women

in society. Conversely, high Suppress women do not seem concerned with whether men are tough or anti-feminine, but do believe that men should have higher status than women in society.

With regards to SA, consistent with the finding that both Perform and Suppress were positively associated with endorsement in traditional gender roles, SA was also positively correlated with traditional attitudes towards women and men (both hostility and benevolence). However, SA was not associated with any of the MRN subscales, likely because Perform and Suppress attitudes were differentially associated with these subscales.

**Sexual self-concept.** In support of predictions, Suppress was associated with holding negative views of oneself as a sexual person and of being a sexual partner, and many of these associations were quite strong. However, the pattern of findings for Perform was more mixed though still supported some of the predictions. Consistent with predictions that Perform would either be negatively associated or not associated with holding positive views of oneself as a sexual person and sexual partner, Perform was somewhat negatively associated with body esteem, and was not associated with feelings sexual safety or holding a more positive sexual self-schema. However, contrary to predictions, Perform was somewhat positively associated with several of the subscales of the sexual self-esteem measure (pleasure, giving, receiving, and general sexual self-esteem), though these associations were mostly quite small and several may not have been significant had the sample size been smaller. The pattern of correlations for SA tended to follow the pattern for Suppress, which can be explained by the fact that all of the associations with Perform were quite small or not significant and that the associations with Suppress were quite strong and negative.

**Personality.** Consistent with the view that Perform is linked to being *for* something and Suppress is linked to being *against* something (sexual expression in the case of SA), Perform was positively associated with approach tendencies, and Suppress was somewhat positively associated with avoidance tendencies. SA was somewhat positively associated with both tendencies.

Also consistent with predictions was the finding that endorsement in Suppress was somewhat negatively associated with extraversion. But interestingly, Perform was not associated with trait extraversion as I had predicted. SA was not associated with trait extraversion.

Finally, as predicted, Perform and Suppress attitudes were not associated with women's beliefs that being safe is an *important* concern, as this is likely an important concern for most women regardless of these specific beliefs. However, consistent with the idea that Suppress messages teach women to be hypervigilant to the dangers of sexuality, as predicted, endorsing Suppress was negatively associated with beliefs in ones *chances* of obtaining personal safety. Because Perform messages do not relate to concerns with safety, as predicted, Perform was not associated with these beliefs. SA followed the pattern of Suppress in that it was somewhat negatively associated with beliefs about ones chances of obtaining personal safety and was not associated with beliefs that safety is important.

**Social desirability.** Suppress was not correlated with social desirability. Interestingly, Perform was actually negatively correlated with the propensity to engage in socially desirable responding, and SA followed the same pattern. This indicates that women are not simply endorsing the Perform items because they are socially desirable responses. And in fact, Perform endorsers were actually less likely to indicate that they engage in more socially acceptable

behaviors. SA was likely associated negatively with social desirability because Perform was associated with this construct.

**Subjective conflict.** In support of the prediction that SA (potential ambivalence) would be positively associated with the experience of psychological conflict (felt ambivalence), SA was positively correlated felt ambivalence about sexuality (i.e., feeling torn or conflicted). Contrary to predictions, however, SA was not associated with trait preferences for consistency rather than negatively associated. This might be due to the fact that the items in the PFC scale address consistency between beliefs and behavior. The items on the SAQ address both beliefs and behaviors, and thus may not be as directly relevant to the content of the PFC scale as I had anticipated.

While I did not have any a priori predictions about the association between experiences of psychological conflict and the Perform and Suppress subscales, some interesting patterns emerged. Participant Suppress beliefs were positively associated with both preferences for consistency and felt ambivalence about sexual expression. While Perform beliefs were somewhat positively associated with felt ambivalence about sexual expression, though Perform beliefs were not associated with preferences for consistency. Thus, endorsing either Perform or Suppress messages appears to be linked to psychological discomfort about engaging in sexual expression, which reinforces the idea that both types of messages are problematic for holding a healthy view of oneself as a sexual person.

**Sexual attitudes, behaviors, and alcohol use.** Overall, the data were consistent with predictions that Suppress attitudes would be negatively associated with engaging in sexual behaviors and alcohol use because Suppress messages teach women to feel negatively towards



sexual expression and avoid the negative impacts that alcohol use might have on judgments. Consistent with the idea that Perform beliefs might be related to more sexual behaviors because they allow a woman to prove her sexual desirability, Perform attitudes were positively correlated with these outcomes. Also consistent with predictions was the finding that neither Perform nor Suppress were correlated with protection behaviors.

I predicted that SA might be positively associated with alcohol use, however, SA was not associated with alcohol use, likely because Perform and Suppress beliefs were differentially associated with alcohol use. While I did not have specific predictions about the association between SA and sexual behaviors, the pattern did appear to follow that of Suppress in that SA was negatively correlated with many of these outcomes. However, these correlations were quite small.

**Sexual ambivalence.** In order to examine the unique contribution of SA in predicting each of these outcome measures, I conducted a regression analysis in which standardized Perform, Suppress, and SA predicted each of the dependent measures. After controlling for the influence of Perform and Suppress beliefs, the regression analyses indicated that SA was associated with very few of the outcome measures compared to when I did not first control for Perform and Suppress. The only patterns that replicated were the findings that SA was negatively associated with one's beliefs about their chances of obtaining safety and several of the sexual behavior outcomes (total number of partners and casual sex partners). Interestingly, there were also several associations that became significant once I controlled for Perform and Suppress beliefs. These were negative associations with beliefs that men should have higher status in society and overall endorsement in masculinity, and negative attitudes towards having casual sex. These findings suggest that SA might be more useful for predicting behavioral

outcomes (e.g., sexual behaviors) than it is for predicting individual differences, particularly as the individual differences measured in Study 3 were primarily meant to assess the construct validity of Perform and Suppress attitudes. And these findings also suggest that SA may be useful in predicting some outcomes, particularly sexual behaviors, above and beyond Perform and Suppress beliefs.

### **Discussion**

The purpose of Study 3 was threefold. First, Study 3 tested the factor structure of the SAQ using CFA. Second, I collected data to validate the convergent and discriminant validity of the SAQ. Third, the study begins to examine SA and whether it may be a useful construct.

First, the CFA confirmed that Perform and Suppress form 2 distinct factors. Moreover, they were only moderately negatively correlated. Thus, it is best to conceptualize these constructs as different messages that women can simultaneously endorse, rather than as opposite ends of the same continuum (i.e., as a dichotomy). The descriptive data also indicate that overall, women endorsed Perform messages at a higher rate than Suppress messages. Below, I discuss the Perform and Suppress constructs and provide evidence of their validity

**Perform endorsement.** Perform messages advocate that women perform their sexuality in order to provoke lust and prove their desirability and worth as women, irrespective of their own desires. The data in Study 3 are consistent with the definition of the Perform construct and support my argument that endorsing Perform messages can be harmful for women in many regards. In support of the idea that women who engage in sexual performativity are concerned with the perception of others, particularly that their bodies are attractive and pleasing, Perform was associated both with concerns about the opinions of others and concerns with one's

appearance, including the harmful propensity to self-objectify. Engaging in sexual objectification can be particularly harmful, as it can lead to a tendency to focus on what the body looks like as a sexual object rather than how the body feels as a sexual subject. Also contrary to the assertion that Perform attitudes represent sexual empowerment or sexual liberation for women, Perform was positively associated with holding traditional (sexist) attitudes towards both women and men, which included both hostility and benevolence towards women and endorsement in traditional notions of masculinity.

Additionally, Perform, though largely not associated with holding a negative sexual self-concept, was somewhat unrelated to one's sexual self-concept in that it was not associated with holding a more positive sexual self-schema. However, contrary to predictions, Perform was somewhat positively associated with several of the subscales of the sexual self-esteem measure (pleasure, giving, receiving, and general sexual self-esteem), though these associations were mostly quite small. When I reexamined the wording of the items in these subscales I noted that several do fit with the content of Perform messages and are not necessarily indicative of holding a positive sexual-self concept. For instance, items in the "giving" subscale ask about being pleased with giving pleasure to a sexual partner. Perform messages teach women that it is important to give pleasure to men, but that this is done at the expense of women's own embodied desires and pleasures. In addition, some of the items in the "general" subscale could be interpreted positively by participants. For instance, one question asks participants whether they think they have positive general sexual self-esteem. A woman who engages in sexual performance might believe that she is engaging in a positive form of sexual expression because Perform messages teach that this type of expression is liberatory and empowering. Thus, I would argue that the content of some the items might be responsible for the small positive

associations with Perform endorsement, and thus not necessarily indicative of a holding a positive sexual self-concept. My argument is further supported by the larger pattern of findings, which suggest that Perform is linked to self-objectification, holding traditional gender roles, and feeling conflicted about sexual expression, which I discuss next.

While unexpected, there was a positive association between Perform attitudes and feelings of being torn or conflicted (felt ambivalence) when in sexual situations with a partner. This is not surprising in light of the fact that many of the women I interviewed for Study 1 brought up the fact that they must be concerned about the sexual double standard. That is, while men are encouraged to engage in sexual behaviors, women who appear sexually available, regardless of whether or not they are actually having sex, are often shamed for it (i.e., receive a “slut” label). The conflict may arise from concerns that appearing too sexually available will be met with negative labels. Thus, while there may be elements of holding Perform attitudes that are linked to positive expressions of sexuality (e.g., enjoying bodily sexual pleasure), these associations were either small or largely insignificant and taken as a whole reinforce my argument that Perform endorsement is problematic for women’s sexual self-concept in many ways.

In terms of sexual attitudes and behaviors, Perform attitudes were positively associated with favorable attitudes towards casual sex, more sexual partners, and more casual sex partners. While these sexual behaviors were not necessarily risky (i.e., Perform was not related to protection behaviors), they may have involved alcohol use, for Perform was correlated with alcohol use, binge drinking, and having sex while intoxicated<sup>13</sup>. More research is needed to

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<sup>13</sup> To test my argument that the relationship between endorsement in Perform messages and casual sex behaviors can be explained in part by the binge drinking that takes place within the “hookup culture,” I conducted a mediation

examine these links, but the data do lend some support to Kimmel's (2009) assertion that in college, casual sex and alcohol use often go hand in hand. In particular his finding that women would rather be labeled as "drunks" than as "sluts." Their alcohol use can be used to mask their perceived sexual desire and agency. While it is not necessarily the case that endorsement in Perform leads to risky sexual behaviors, these data suggest that endorsement in Perform does not facilitate the development of a healthy sexual self-concept or valuing egalitarian gender roles, and may encourage self-objectification and participation in the "hookup culture."

I also sought to demonstrate that endorsement of Perform messages was distinct from several personality measures, which I did. Perform was somewhat positively associated with, but distinct from, having an approach oriented personality. And Perform was not related to, and is thus distinct from having an extraverted personality.

**Suppress endorsement.** I described Suppress messages as advocating that women be morally virtuous, good feminine women, who think that it is important to protect themselves from sexual risks and dangers. Consistent with the idea that women must be concerned with demonstrating to others that they virtuous and self-respecting, both in their behaviors and in how they present their bodies, Suppress attitudes were associated with both concerns about the opinions of others and a form of self-objectification, body shame. Similarly, and consistent with

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analysis. I followed the bootstrapping procedure described in Preacher and Hayes (2008). Participant self-reported binge drinking was treated as a possible mediator of the relationship between Perform endorsement and casual sex behaviors. The confidence intervals were estimated using 5000 bootstrap re-samples. As predicted, endorsement in Perform predicted binge drinking ( $b = .50, t = 4.42, p < .001$ ), and binge drinking predicted casual sex behaviors ( $b = .31, t = 2.61, p < .01$ ). Further binge drinking mediated the relationship between endorsement in Perform and casual sex behaviors, for the bias corrected and accelerated confidence interval did not include zero, 95% CI [.02, .29]. Binge drinking partially mediated the relationship between Perform endorsement and casual sex behaviors, as this association remained significant (from  $b = .75, t = 4.56, p < .001$  to  $b = .59, t = 3.45, p < .001$ ) when binge drinking was included in the model.

the tenets of abstinence-only education, Suppress was also positively associated with holding conservative, religious, and moral values.

Consistent with the argument that Suppress messages reinforce traditional gender roles, and in particular with traditional femininity, Suppress attitudes were also positively associated with holding more traditional attitudes about both women and men, including both hostility and benevolence towards women and endorsement in traditional notions of masculinity.

In support of my contention that Suppress messages promote fear and anxiety about the dangers of sexual expression and thus work to decrease women's sexual exploration, Suppress attitudes were linked to having a more negative sexual self-concept and to feeling torn and conflicted (felt ambivalence) when in sexual situations with a partner. These associations held across all of the subscales and were quite strong. In terms of sexual attitudes and behaviors, Suppress was linked to engaging in fewer sexual behaviors and not drinking alcohol, likely so as to avoid impaired judgment. While it may be the case that endorsing Suppress attitudes reduces the possibility of engaging in risky behaviors, it is also the case that endorsing Suppress attitudes stifles sexual exploration and the development of a positive sexual-self concept.

I also sought to demonstrate that endorsement of Suppress messages was distinct from several personality measures, which I did. Suppress was associated with having a more avoidant and less extraverted personality, and with preferences for consistency between thoughts and behaviors.

**Sexual ambivalence.** Sexual Ambivalence (SA) was also related to many of these outcomes. The pattern of SA associations often mirrored the pattern found when looking at Perform and Suppress endorsement, which is likely due to the nature of SA and the manner in

which scores were calculated (the Griffin formula). That is, if both Perform and Suppress were similarly associated with an outcome, then SA was similarly associated. Conversely, if Perform and Suppress were differentially associated with an outcome, SA followed the pattern of the strongest association or was not associated with the outcome. SA was positively associated with concerns about the opinions of others and with concerns about one's appearance. SA was also somewhat positively associated with holding conservative, religious, and moral values, and with endorsing traditional gender roles, particularly with hostile and benevolent sexism. In the context of sexuality, SA tended to be associated with holding a more negative sexual self-concept, with concerns about personal safety, with feeling conflicted about sexual expression, and with engaging in fewer sexual behaviors. With regards to personality, SA was positively associated with both approach and avoidance tendencies. Finally, SA was negatively associated with the tendency to engage in socially desirable responding.

To determine whether SA has predictive power above and beyond Suppress and Perform, I reran the analyses using regression, such that I entered in Suppress, Perform, and SA to predict each outcome variable. When I conducted these analyses, almost all the significant links between SA and the outcome variables failed to replicate, and for the most part, SA was no longer significantly linked to the outcome variables. This is particularly the case for the associations between SA and the individual difference measures. The only correlation that replicated was that SA still negatively predicted beliefs about one's chances of obtaining personal safety. Thus, the links between Perform and Suppress may be accounting for more of the variance in the individual difference measures than SA. In Study 3, I included the majority of the personality and individual measures to assess the convergent and discriminant validity of the Perform and Suppress constructs. So it follows that most of the associations between Perform, Suppress, and

the individual differences would be the strongest and most robust, and thus this finding is not problematic or surprising.

Research on ambivalence suggests that it is most important and influential when one must actually use their conflicting attitudes (in this case Perform and Suppress) to make a decision about a preference, course of action, or behavior in a given situation (van Harreveld et al., 2009), which is consistent with the finding that SA predicts several of the behavioral outcomes even after controlling for Perform and Suppress. SA negatively predicted women's number of sexual partners, and attitudes and behaviors concerning casual sex, and thus held more predictive power in the context of the behavioral outcomes compared to the personality and individual difference variables. Thus, SA (holding simultaneously high Perform and Suppress attitudes) does seem to predict some of the negative behavioral outcomes beyond Perform and Suppress scores. The pattern of data suggests that when participants experience conflict about engaging in sexual expression (high SA) in a given situation, this conflict may lead to relying on Suppress cues in the environment, and thus engaging in fewer potentially risky behaviors (e.g., less casual sex). This is perhaps because being Suppress-oriented represents what conflicted women perceive to be a safer, or less risky way of operating, though it likely also stifles healthy sexuality development and exploration. This finding that SA predicts several of the behavioral outcomes, but does not predict many of the personality and individual difference outcomes, makes sense when one thinks of SA as being particularly important for in-the-moment, contextual decision-making. In particular, I have hypothesized that high SA women would be particularly influenced by salient situational cues, whereas low SA women would not.

It is likely that SA is particularly important for understating contextual and in-the-moment decision making that is linked to some type of preference, choice, or behavior. Thus, in



order to examine the utility of the SA construct, it is necessary to examine its influence in on decision-making in a situation where either Perform or Suppress cues are salient. This will help to address the question of whether high SA women's reliance on Suppress cues in the environment was responsible for the behavioral effects found in Study 3. I examine the issue of predictive validity of the SAQ in a situational context in Study 4 using participant preferences as the outcome.

#### **Study 4: Predictive Validity – Susceptibility to Influence by Situational Cues**

In Study 4, I draw from literature on the role of ambivalence in the context of decision-making to derive several testable predictions about the manner in which SA will influence participant preferences in a given situation. While there are many ways to assess decision-making, in this initial examination of the predictive validity of the SAQ, I use participants' preferences for Perform and Suppress-relevant topics as the outcome measure. Recall that ambivalent attitudes can produce attitude polarization when salient situational cues prime a particular component or attribute of the attitude. This finding led me to hypothesize that priming either Perform or Suppress attitudes (relative to priming an unrelated attitude) should promote attitude polarization in the direction of the prime for high SA women. Further, research on RTs suggests that for high SA women, when either component of their ambivalent attitude are primed, their RTs should be faster at indicating prime-relevant preferences relative to when an unrelated attitude is primed. For low SA women, priming Perform or Suppress attitudes should not influence their preferences or their RTs.

To test these hypotheses, I measured women's pre-existing Perform and Suppress attitudes in order to assess their level of SA. I then examined how those pre-existing attitudes

would influence their preferences in a laboratory study later in the semester. In the lab, I primed situational cues by asking women to read 1 of 3 communications that either primed Perform, Suppress, or unrelated (getting involved on campus) attitudes. Then, I examined whether these primed attitudes differentially influenced their preference for reading subsequent articles that contained either Perform, Suppress, or unrelated (Neutral) content. Note that I again measured SA using the Griffin formula, which produces a continuous measure of ambivalence. Thus, when I refer to high SA versus low SA, I am referring to increases and decreases in SA on this continuous scale, unless otherwise specified. I predicted that for high SA women, making salient one component of their ambivalent attitude in the lab (i.e., with either a Perform or Suppress communication) would polarize their preferences for reading subsequent article titles in the direction of the communication they read and would quicken RTs relative to when neither attitude was primed (i.e., with a Neutral communication). For example, women who read a Perform communication would feel positively towards reading Perform-oriented articles (vs. Neutral), and would make these ratings very quickly (vs. Neutral). Conversely, I predicted that for low SA women, the content of the communications they read in the laboratory would not influence their preferences for the article titles, but rather they would rely on their pre-existing Perform and Suppress attitudes about sexual expression, measured at the beginning of the semester, when making their ratings. I made no predictions about RTs for low SA women. In Study 4, I also examined the test-retest reliability of the SAQ by examining the relationship between pre-existing attitudes and attitudes measured later during the laboratory experiment.

## **Method**

### **Participants**

During Part I, 635 female participants completed the SAQ as part of the Psychology Department's mass screening at The Pennsylvania State University, which occurs during the beginning of the semester. Of these, 451 indicated that we could recruit them for participation. To ensure that I had complete and accurate SAQ data to determine who to recruit, I first removed participants who had missing data on any of the 27 SAQ items ( $N = 38$ ), leaving 421 women.<sup>14</sup>

For the purposes of recruitment for Part II, the laboratory portion of the study, I divided participants into 3 groups: high, moderate, and low SA based on SA scores calculated via the Griffin formula. I divided participants into 3 groups to help ensure that my final sample would include women with a wide range of SA scores. I contacted randomly selected participants from each group via email until I had approximately 40 participants per group. If a participant did not respond after 3 contact emails, I stopped attempting to recruit them and went to the next participant on the list.

Part II of the study occurred approximately 9-11 weeks from the mass screening. Participants were 121 female undergraduates who received course credit for participating. I removed two participants from the analyses because they were outliers on several key dependent measures. This left a sample of 119 women ( $M$  age = 19.44,  $SD = 3.44$ <sup>15</sup>). Participants were 99.2% exclusively or mostly heterosexual ( $N = 118$ ). The remaining .8% identified as bisexual ( $N = 1$ ). They reported having on average 3.00 ( $SD = 3.42$ ) sexual partners. Participants indicated that 49.6% were in a romantic relationship (23.7% lasting 6 months or less; 28.8% lasting between 6 months and 1 year; 47.5% lasting longer than 1 year). Participants were 3.4%

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<sup>14</sup> After removing the 38 people with missing data, I conducted  $t$ -tests to see if Perform, Suppress, or SA scores differed between those who said we could recruit them vs. those who said we could not. The scores did not differ.

<sup>15</sup> One woman failed to provide her age.

African American, 5.0% Asian/Pacific Islander, 84.9% Caucasian, 5.0% as Latina, and 1.7% other.

## **Procedure**

Participants completed the study in groups of up to 10 with a female experimenter. Experimenters told participants that we were conducting the study on behalf of a marketing research company interested in creating a new magazine for female Penn State students. To that end, participants would read and provide feedback on an article written by a female Penn State student that was being considered for inclusion in the magazine and would then rate the extent to which they would be interested in reading several other articles based on their titles. All measures were completed on the computer, which recorded response times (RTs).

**Communication condition.** To manipulate communication type, I randomly assigned participants to read and evaluate 1 of 3 articles that contained either a Perform, Suppress, or Neutral message (refer to Appendix F for each communication)<sup>16</sup>. The Perform communication advocated that women should use their “sex appeal” to get others interested in them and to express their confidence by looking sexy. The Suppress communication advocated that women should be modest, be careful with expressing their sexual feelings, and not take sexual risks as a means of demonstrating self-respect. The Neutral (“Get Involved”) communication advocated that women get involved in campus clubs and activities as a way to maximize their undergraduate experience. The communications were written such that the length, tone, and reported benefits of engaging in each type of expression/activity, such as meeting friends and relationship partners and feeling good about oneself, were the same.

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<sup>16</sup> Pre-testing revealed that each communication had the intended influence on participants’ perceptions that they should either Perform their sexuality, Suppress their sexuality, or get involved in campus clubs and organizations.

**Manipulation checks.** After participants read the communications<sup>17</sup>, as a manipulation check, they first answered questions about the content of the communication on a 7-point scale (1 = *not at all*, 4 = *moderately*, 7 = *very much*). Specifically, I assessed whether the content of the article influenced the perceptions that they should: Perform their sexuality (Perform beliefs: “This article made me think that I should express more of my sex appeal,” “show that I’m sexually adventurous,” and “express my confidence by looking sexy;”  $\alpha = .94$ ), Suppress their sexuality (Suppress beliefs: “This article made me think that I should behave modestly,” “avoid sexual risks,” and “be careful about expressing my sexual feelings;”  $\alpha = .93$ ), and get involved on campus (Get Involved beliefs: “This article made me think that I should get involved in campus clubs and organizations”). To examine whether participants paid attention to and thought about the arguments made in the articles, they also answered 2 questions on the same 7-point scale (“While reading the article, I thought about the arguments made by the author;” “While reading the article, I paid attention to the quality of the arguments made by the author”;  $r(77) = .24, p < .04$ ). To examine whether participants agreed with and found persuasive the message in the communication, they also answered 12 questions on the same 7-point scale described above (e.g., “I personally agree with the arguments made in the article,” “I found the article persuasive;”  $\alpha = .96$ ).<sup>18</sup> All manipulation check measures can be found in Appendix G.

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<sup>17</sup> Prior to completing these measures, participants also answered a series of questions about how reading the articles made them feel (e.g., interested, conflicted, distressed, pleased, irritated, etc.) and provided open-ended information about their reactions to the article and the author. As these measures were exploratory and I did not have specific hypotheses about them, they are not discussed further.

<sup>18</sup> A factor analysis on these items during pre-testing suggested the items formed 2 distinct factors: agreement and persuasiveness. Specifically, 3 questions assessed the extent to which they agreed with the message in the communication ( $\alpha = .93$ ) and 9 questions assessed how persuasive they found the communication ( $\alpha = .94$ ). I combined these factors because they were very highly correlated in this sample,  $r(77) = .79, p < .001$ , and thus I considered them to be one factor.

**Participant preferences: Article titles.** Next, to assess participant preferences, participants saw 14 article titles and rated their interest in reading the articles based on the content of the titles. They were told that each article might be included in the new Penn State magazine. Participants learned that because their attitudes towards reading the articles might be rather complex, that they would rate both how positively and how negatively they felt about reading each one on a 6-point scale (1 = “Not at all positive/negative” to 6 = “Very much positive/negative”). Further, they were instructed to rely on their first impressions and gut reactions, and to make their ratings as quickly as possible. The article titles were (a) Perform-oriented: “Bored with your workout? Reasons to try cardio pole dancing,” “Hook-ups: The modern route to relationships?,” and “Men let you in on the surprising things that make them lust over you;” 3 titles: positivity  $\alpha = .59$ , negativity  $\alpha = .60$ ; (b) Suppress-oriented: “True Love Waits: The benefits of ‘taking it slow’ in relationships,” “His point of view: Why men really do prefer nice girls,” and “Beyond ‘Just say no’: How to cool things down if you’re just not ready;” 3 titles: positivity  $\alpha = .80$ , negativity  $\alpha = .70$ ; and (c) Neutral: “Volunteerism – What you get by giving,” “Getting your dream job: Steps you can take now”, 8 titles. To determine how positively participants felt about the titles, I subtracted the negative ratings from the positive ratings such that higher numbers would indicate more positivity (Perform-oriented titles  $\alpha = .79$ ; Suppress-oriented titles  $\alpha = .85$ ). All article titles can be found in Appendix G.

Finally, in order to examine test-retest reliability, participants completed the SAQ (Perform  $\alpha = .92$ ; Suppress  $\alpha = .91$ ). They also answered the demographic questions, along with a series of exploratory measures. The experimenter then verbally debriefed and thanked the participants.

## Results

**Descriptives and test-retest reliability.** Prior to conducting analyses, I standardized participant Perform and Suppress scores at Part I during the mass screening and at Part II at the end of the lab portion of the study using mass screening Perform and Suppress scores<sup>19</sup>. I used these standardized Perform and Suppress scores to calculate participant Griffin scores at both timepoints. In order to examine the test-retest reliability of the SAQ, I calculated bivariate correlations between SAQ scores at the mass screening and in the current study. Note that for this analysis, I included only participants who completed Study 4. Please refer to Table 12 for the pattern of correlations. The correlations suggest that the SAQ has good test-retest reliability given that Perform, Suppress, and Griffin scores were all highly correlated (all higher than .71) between Time 1 during the mass screening and Time 2 during Study 4.<sup>20</sup>

Table 12. *Test-Retest Reliability Correlations, Means, and Standard Deviations*

	Time 1: Mass Screening			Time 2: Study 4		
	Perform	Suppress	SA	Perform	Suppress	SA
T1 Perform	-					
T1 Suppress	-.18	-				
T1 SA	.36***	.42***	-			
T2 Perform	.71***	-.23*	.29**	-		
T2 Suppress	-.35***	.77***	.20*	-.37***	-	
T2 SA	.17	.32***	.73***	.25**	.35***	-
Mean	4.04	3.14	-1.36	4.21	3.03	-1.27
SD	1.01	1.03	1.29	.90	.90	1.24

Note:  $N = 119$ ; \* $p \leq .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . Means and standard deviations presented in the table were calculated using non-standardized Perform and Suppress scores.

<sup>19</sup> Note that using the mass screening data, I calculated mean Perform ( $M = 4.00$ ,  $SD = .94$ ) and Suppress ( $M = 3.23$ ,  $SD = .92$ ) scores for participants who had no missing data on any of the mass screening SAQ items ( $N = 597$ ), regardless of whether or not they said we could recruit them for participation.

<sup>20</sup> An additional way to examine test-retest reliability such that the content of the communication that participants received could be disentangled from their SAQ scores at the end of the study is to examine the correlations within the group that got the Neutral communication alone. This group also demonstrated adequate test-retest reliability in that Perform scores ( $r(41) = .59$ ,  $p < .001$ ), Suppress scores ( $r(41) = .67$ ,  $p < .001$ ), and SA scores ( $r(41) = .58$ ,  $p < .001$ ) were also quite highly correlated.

### Persuasive Communication Manipulation Checks

To examine the effectiveness of the Persuasive communications at manipulating Perform, Suppress, and Get Involved beliefs, I conducted three separate regression analyses. Because there were 3-levels to the communication manipulation, I dummy coded it into two separate predictor variables (see Aiken & West, 1991). The first code compared the Perform condition to the Neutral condition (PvsN), and the second compared the Suppress condition to the Neutral condition (SvsN). I then separately regressed each of the belief outcome variables (Perform, Suppress, and Get Involved beliefs) on: centered mass screening SA (Griffin) scores, PvsN, SvsN, and the 2 2-way interaction terms. Recall that higher scores on each of the three outcome measures indicate beliefs that the persuasive communications made participants think that they should Perform their sexuality, Suppress their sexuality, or Get Involved on campus. Refer to Table 13 for the means and standard deviations for each of these variables by communication condition.

Table 13. *Manipulation Check Means and Standard Deviations by Communication Condition*

	Perform Communication	Suppress Communication	Neutral Communication
Perform Beliefs	4.31 (1.73)	1.63 (.94)	1.37 (.62)
Suppress Beliefs	2.11 (1.09)	4.54 (1.95)	1.50 (.65)
Get Involved Beliefs	1.82 (1.41)	1.78 (1.51)	6.05 (1.42)
Argument Attentiveness	5.04 (.94)	4.86 (1.14)	5.41 (1.07)
Agreement/Persuasiveness	4.08 (1.63)	4.17 (1.55)	5.38 (1.04)

Note: Standard deviations are in parentheses behind the means.



With regards to Perform beliefs, results revealed the predicted PvsN effect, which indicated that participants who read the Perform communication reported that the communication made them think they should Perform their sexual expression compared to participants who read the Neutral communication ( $\beta = .78, t = 11.12, p < .001$ )<sup>21</sup>. There were no other significant effects. Thus, the Perform communication was effective at manipulating Perform beliefs relative to the Neutral communication. Further, Perform beliefs were not influenced by the Suppress communication relative to the Neutral communication or by SA.

With regards to Suppress beliefs, results revealed the predicted SvsN effect, which indicated that participants who read the Suppress communication had more Suppress beliefs compared to participants who read the Neutral communication ( $\beta = .77, t = 10.18, p < .001$ ). Unexpectedly, the PvsN effect was also significant indicating that participants who read the Perform communication had more Suppress beliefs compared the participants who read the Neutral communication ( $\beta = .15, t = 1.99, p < .05$ ). This result suggests that reading the Perform communication did prime Suppress beliefs to some extent relative to the Neutral communication. There were no other significant effects. Thus, the Suppress communication was effective at manipulating Suppress beliefs relative to the Neutral communication and Suppress beliefs were not influenced by SA. The finding that the Perform communication predicted a small increase in Suppress beliefs is consistent with my argument that women fear that appearing too sexually

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<sup>21</sup> Note that results indicated that one participant was an outlier on this variable. When I removed her from this analysis, I also found a significant SA\*PvsN interaction ( $\beta = .16, t = 1.99, p < .05$ ). Follow up analyses revealed that this interaction was due to the fact that SA predicted Perform beliefs for participants who read the Perform communication ( $\beta = .24, t = 1.49, p < .15$ ), however, SA did not predict Perform beliefs for participants who read the Neutral communication ( $\beta = -.18, t = -1.15, p = .26$ ). The finding that the Perform communication was more effective than the Neutral communication at influencing Perform beliefs as SA increases is not surprising and is consistent with my hypothesis that high SA women would be more influenced by the content of the persuasive communications than would low SA women. Additionally, removal of this outlier does not substantively influence any of the other analyses, and thus she was retained for all subsequent analyses.

available may be met with negative opinions and labels (i.e., “slut”), and thus is likely an unavoidable consequence of priming Perform attitudes. Further, mean Suppress beliefs for participants who read the Perform communication were still well below the midpoint of the scale on this measure (refer to Table 13). Thus, it is unlikely that this effect will pose a problem for interpretation of the results.

With regards to beliefs that one should Get Involved on campus, results revealed the predicted PvsN ( $\beta = -.78, t = -12.79, p < .001$ ) and SvsN ( $\beta = -.82, t = -13.08, p < .001$ ) effects indicating that reading the Neutral communication predicted more Get Involved beliefs than reading either the Perform or Suppress communications. No other effects were significant.

To establish that participants paid equal attention to the quality of the arguments made in each of the persuasive communications, I conducted a regression analysis as described above using participant ratings of attentiveness as the outcome variable. Contrary to predictions, there was a significant SvsN effect indicating that women reported paying less attention to the quality of the arguments made in the Suppress communication relative to the Neutral communication ( $\beta = -.24, t = -2.34, p < .03$ ), though there were no other significant effects. Thus, participants may have paid less attention to the quality of the arguments made in the Suppress communication relative to the Neutral and Perform communications, though SA did not influence attentiveness. There are multiple reasons why participants may have reported paying less attention to the quality of the arguments in the Suppress communication (e.g., they were already familiar with or already agreed with these arguments). Given that the Suppress communication did influence Suppress beliefs as expected and that the mean rating of attentiveness is at the midpoint of the scale (i.e., moderately attentive; refer to Table 13), I did not view this finding as problematic.

To establish that the persuasive communications were equally effective at influencing agreement/persuasiveness ratings, I conducted a regression analysis as described above using participant ratings of agreement/persuasiveness as the outcome variable. Unexpectedly, the results revealed that participants found the Neutral communication more agreeable/persuasive than either the Perform ( $\beta = -.39, t = -4.02, p < .001$ ) or the Suppress ( $\beta = -.37, t = -3.77, p < .001$ ) communications. SA did not influence agreement/persuasiveness ratings as there were no other significant effects. I did not view these findings as problematic given that means for the Perform and Suppress communications were at the midpoint of the scale (i.e., moderately agreeable/persuasive; refer to Table 13), given that this effect was found for both the Perform and Suppress communications relative to the Neutral communication, and given that SA did not influence ratings.

### **Participant Preferences: Article Titles**

To test the prediction that SA would interact with the persuasive communications to predict preferences for the article titles, I conducted a regression analysis. Recall that I predicted that high SA women only would be influenced by the content of the Perform and Suppress communications, relative to the Neutral communication. I first calculated a composite variable that assessed participant overall preferences for or positivity towards the Perform-oriented titles over the Suppress-oriented titles ( $PvsS_{pref}$ ) by subtracting Suppress positivity ratings (Suppress positivity – Suppress negativity) from Perform positivity ratings (Perform positivity – Perform negativity). Using this score as the outcome variable is akin to conducting a within subjects regression analysis with positivity towards reading the Perform-oriented over the Suppress-

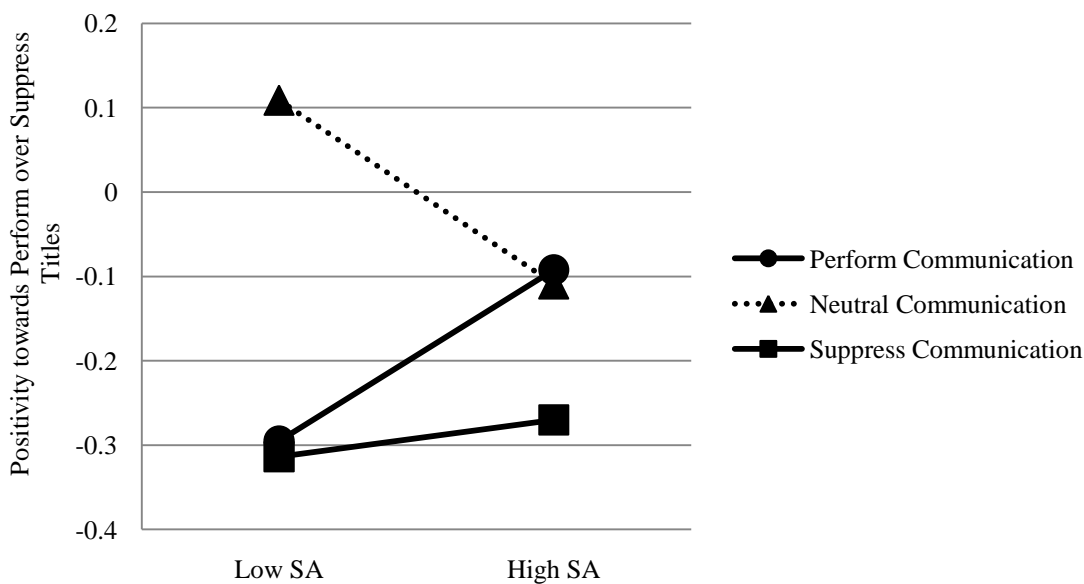
oriented article titles as the outcome variable. I regressed this composite variable ( $PvsS_{pref}$ ) on: centered mass screening SA (Griffin) scores<sup>22</sup>, PvsN, SvsN, and the 2 2-way interaction terms.

The results revealed a trend for a PvsN effect ( $\beta = -.19, t = -1.89, p < .06$ ), which was qualified by a trend for the predicted SA\*PvsN interaction ( $\beta = .21, t = 1.69, p = .09$ ; refer to Figure 2 where high and low SA groups were determined by conducting a median split on SA scores). As can be seen in Figure 2, the results were consistent with predictions in that there was a trend for participants who read the Perform communication such that, as SA increased, so did their liking for the Perform-oriented article titles over the Suppress-oriented titles ( $\beta = .25, t = 1.56, p = .13$ ). SA did not predict liking of the article titles for those who read the Neutral communication ( $\beta = -.13, t = -.82, p = .42$ ). Thus, for respondents who received the Perform communication, SA was positively associated with liking Perform titles over Suppress titles.

*Figure 2. Positivity Towards Reading Perform Over Suppress-Oriented Article Titles by SA and Communication Condition*

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<sup>22</sup> The centered SA scores were initially entered in the first step to examine the unique contribution of this factor, and the rest of the predictors were entered in the second step. However, SA scores were not predictive in step one, and thus the analyses described included all predictors in the same step.



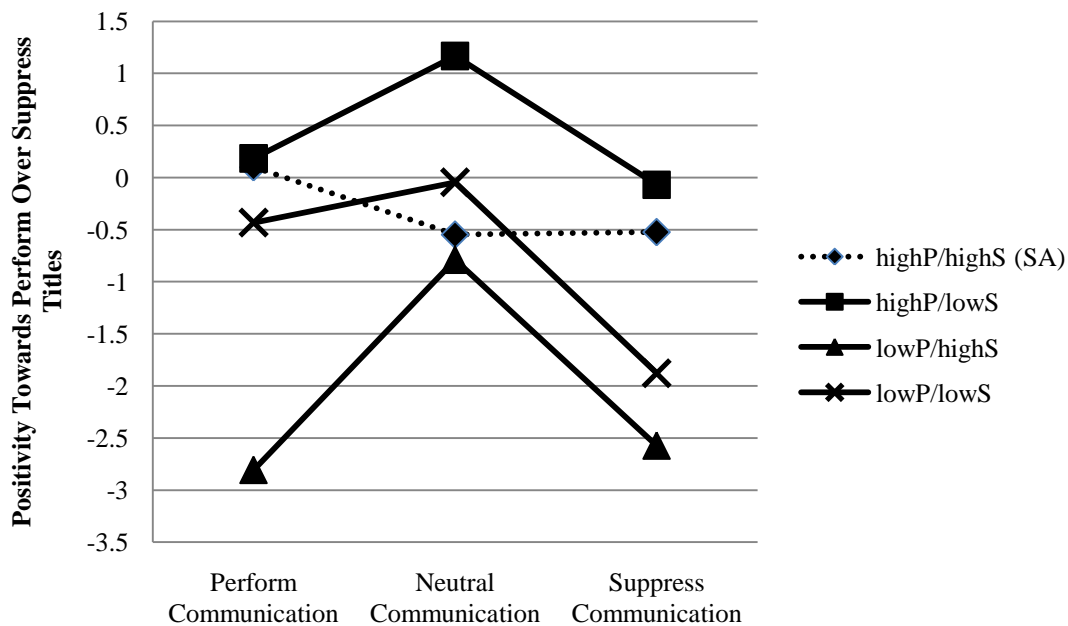
Note: The figure depicts estimates at +/- 1 standard deviation from the mean for the high and low SA groups.

Somewhat consistent with predictions, the results also revealed a significant SvsN effect ( $\beta = -.29, t = -2.85, p < .01$ ) indicating that, regardless of SA, participants who read the Suppress communication (vs. Neutral) felt more positively towards reading the Suppress-oriented article titles over the Perform-oriented article titles (refer to Figure 2). That is, while I predicted that the communications would influence high SA women only, the Suppress communication influenced both high and low SA women such that it increased preferences for reading Suppress-oriented article titles over Perform-oriented article titles relative to the Neutral condition. The pattern is consistent with my argument that Suppress attitudes may represent more of a default for many women because they represent the safe, less risky option.

An alternative way of conceptualizing SA in this regression analysis is as the Perform\*Suppress (P\*S) interaction term. Thus, I also conducted a regression analysis where I regressed  $PvsS_{pref}$  on: standardized mass screening Perform scores, standardized mass screening Suppress scores,  $PvsN$ ,  $SvsN$ , P\*S, and all of the 2 and 3-way interaction terms. The pattern

largely reproduces the pattern of results described in the previous analysis using the Griffin formula, particularly for the high SA group (high Perform/high Suppress). Mass screening Suppress scores ( $\beta = -.30, p < .03$ ) and the Suppress communication (vs. Neutral) (SvsN  $\beta = -.25, p < .01$ ) predicted increased liking for the Suppress over the Perform-oriented article titles (see Figure 3). The latter finding for the Suppress communication (vs. Neutral) mirrors the pattern found in the Griffin formula analysis. Finally, there was a significant P\*S\*PvsN interaction ( $\beta = .28, p < .04$ ; refer to Figure 3). Similar to the SA\*PvsN interaction found in the Griffin formula analysis, for the high SA group (high Perform/high Suppress), the Perform communication was effective at increasing positivity towards the Perform over the Suppress titles relative to the Neutral communication, as can be seen in Figure 3. That is, the high Perform/high Suppress group, which should be the most ambivalent group, showed a pattern that was distinct from all the other conditions, in that it was the only one where the Perform communication was effective at increasing liking of the Perform over the Suppress-oriented article titles. All of the other groups did not respond in an assimilative manner to the Perform communication.

Figure 3. *Positivity Towards Reading Perform Over Suppress-Oriented Article Titles by SA and Communication Condition – Alternate Analysis*



Note: The figure depicts estimates at  $\pm 1$  standard deviation from the mean for each group. High Perform/High Suppress, or SA, is denoted by highP/highS and a dashed line for emphasis. High Perform/ Low Suppress is denoted by highP/lowS. Low Perform/High Suppress is denoted by lowP/highS. Low Perform/Low Suppress is denoted by lowP/lowS.

Even though the other three groups in this analysis (high Perform/low Suppress, low Perform/high Suppress, and low Perform/low Suppress) were not influenced by the Perform communication, they are somewhat problematic to interpret in the context of my hypotheses. Two groups could be conceptualized as low SA, for they represent a polarized attitude (high Perform/low Suppress, low Perform/high Suppress), and I did not make any differential predictions for these groups. Consistent with the view that both groups reflect low SA and so are similar to each other, they exhibited similar results, with the main difference being the expected effect that overall, the high Perform/low Suppress group had more favorable opinions of the Perform over Suppress-oriented titles than did the low Perform/high Suppress group. The third group (low Perform/low Suppress) can best be conceptualized as indifference. I made no predictions for this group, but it too revealed the same pattern of results as the other two groups.

Overall, I predicted that these low SA groups would not be highly influenced by the communications. The pattern for the low Perform/high Suppress group is consistent with this view, for rather than showing higher Perform preferences in the Perform communication condition, they demonstrated a contrast effect. That is, despite the Perform communication, their low Suppress attitudes predicted liking for the Suppress-over the Perform oriented article titles even more so than at baseline (Neutral communication). This contrast effect could represent reactance against the Perform communication message such that it actually bolstered or allowed them to reaffirm their pre-existing Suppress attitudes.

The pattern for the high Perform/low Suppress group is also consistent with predictions in that the Perform communication had minimal influence on their attitudes towards the article titles relative to baseline (Neutral communication). That is, for this group, pre-existing Perform attitudes led them to favor the Perform over the Suppress-oriented article titles both at baseline and also when given the Perform communication. Because this group already had rather high liking for the Perform-oriented over the Suppress-oriented article titles at baseline due to their pre-existing Perform attitudes, it is not surprising that the Perform communication did not further elevate their ratings.

In sum, this alternative analysis mirrors the primary analysis in many ways and lends support to the prediction that the high SA group (high Perform/high Suppress) would be influenced by the content of the persuasive communications. That is, when primed with the Perform (vs. Neutral) communication, high SA women felt more positivity towards the Perform over the Suppress-oriented article titles. Similarly, when primed with the Suppress (vs. Neutral) communication, high SA women felt more positively towards the Suppress over the Perform-oriented article titles. Contrary to predictions, the low SA groups were influenced by the content



of the Suppress communication in an assimilative direction in that the Suppress communication led to more positivity towards the Suppress over the Perform-oriented article titles. This may be indicative of the fact that Suppress attitudes are the default for many women because they represent the safer, less risky choice. Yet, consistent with predictions, the low SA groups were not influenced by the content of the Perform communication in an assimilative direction, but instead might have relied on their pre-existing attitudes when indicating their preferences. To further examine this issue, we conducted some additional analyses.

The above analyses indicates that low and high SA participants differentially respond to the communications, however, they provide minimal information as to whether low and high SA respondents differed in the degree to which they relied on their preexisting attitudes as a basis for their article title preferences. To further test the prediction that for low SA women, pre-existing attitudes (SAQ scores at the mass screening) would predict positivity ratings of the article titles, whereas for high SA women they would not, I examined the correlations between mass screening Suppress and Perform attitudes with the article title ratings by low and high SA group. Specifically, I split the data by SA (high vs. low based on median split) and examined the correlations between Perform and Suppress scores at the mass screening and the composite variable representing feelings of positivity towards the Perform-oriented over the Suppress-oriented article titles ( $PvsS_{pref}$ ). As predicted, mass screening Perform scores were positively correlated with feelings of positivity towards the Perform over the Suppress-oriented article titles for low,  $r(58) = -.53, p < .001$ , but not high,  $r(61) = .23, p = .07$ , SA women. These correlations were significantly different from one another (Fisher  $z = 1.89, p < .03$ , one-tailed), indicating that low, but not high, SA women's Perform scores were positivity linked to preferences for Perform over Suppress-oriented article titles. Also as predicted, mass screening

Suppress scores were correlated with feelings of positivity towards the Suppress over the Perform -oriented article titles for low,  $r(58) = -.56, p < .001$ , but not high,  $r(61) = -.04, p = .77$ , SA women. These correlations were significantly different from one another (Fisher  $z = 3.15, p < .001$ , one-tailed), indicating that low, but not high, SA women's Suppress scores were positivity linked to preferences for Suppress over Perform -oriented article titles. Thus, results supported predictions that pre-existing Perform and Suppress attitudes predicted attitudes towards the article titles for low SA women, but not high SA women.

**Reaction times.** To test the hypothesis that high SA women alone would have faster RTs<sup>23</sup> when primed with either the Perform or Suppress communication (relative to the Neutral communication), I conducted two separate regression analyses. First, I created composite variables that represented participant RTs for making both their positive and negative ratings of the Perform (Perform positive RT + Perform negative RT) and Suppress (Suppress positive RT + Suppress negative RT) article titles. I added positivity and negativity RTs because this composite represents the total amount of time it took participants to make their ratings. I then conducted a regression analysis where I separately regressed Perform title RTs and Suppress title RTs on: centered mass screening SA (Griffin) scores, PvsN, SvsN, and the 2 2-way interaction terms. Contrary to predictions, there were no significant effects (all  $p$ 's  $> .14$ ) in either analysis indicating that SA did not interact with communication condition to predict RTs.

As noted above, an alternative way to conceptualize SA is by using the Perform\*Suppress (P\*S) interaction term. Thus, I also conducted these analyses by regressing

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<sup>23</sup> RTs were not normally distributed, and thus I performed a natural log transform on these data prior to conducting this analysis. After transformation and outlier removal significant Kolmogorov-Smirnov tests indicated that the distributions were still not normally distributed (Perform titles  $p = .073$ ; Suppress titles  $p = .01$ ). Thus, the findings should be interpreted with some caution.

Perform title RTs and Suppress title RTs on: standardized mass screening Perform scores, standardized mass screening Suppress scores, PvsN, SvsN, P\*S, and all of the 2 and 3-way interaction terms. There were no significant effects for the Perform title RTs (all  $p$ 's > .16) or the Suppress title RTs<sup>24</sup>, again indicating that SA did not interact with communication condition to predict RTs as I had hypothesized.

### Discussion

The present study offers preliminary support for the prediction that SA, just like other forms of ambivalence, renders individuals more susceptible to influence by situational cues when indicating their preferences. As predicted, high SA rendered women more susceptible to both Perform and Suppress situational cues when indicating their preferences. Analyses also supported predictions in that low SA women were highly influenced by their pre-existing Perform and Suppress attitudes when indicating their preferences, whereas high SA women were not. However, contrary to predictions, low SA women were influenced by the Suppress communication in an assimilative direction. Also, the predictions about RTs were not supported in that SA did not quicken RTs in the presence of salient situational cues. In addition, the present investigation provides evidence that the SAQ has good test-retest reliability given that administration of the SAQ at two timepoints that were separated by almost 3 months resulted in high correlations between scores.

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<sup>24</sup> Note that two additional participants were outliers in this analysis and there was a significant Perform\*SvsN interaction ( $\beta = -.35, p = .05$ ) when they were removed. For participants who read the Neutral communication, mass screening Perform scores predicted longer RTs for making their Suppress title ratings ( $\beta = .59, p < .03$ ), whereas this was not the case for participants who read the Suppress communication ( $\beta = -.15, p = .41$ ). This pattern was not predicted and does not shed light on predictions as it occurred only for those in the Neutral communication condition. All other  $p$ 's > .06.

Ratings of positivity, or preferences, for the Perform and Suppress-oriented article titles provided support for predictions that high SA women would be more influenced by the situational cues provided in the persuasive communications than would low SA women, though the RT hypotheses were not supported. Specifically, there was an interaction between SA and the Perform communication (vs. Neutral) in both analyses, such that when given the Perform communication, as SA increased so too did liking for the Perform titles over the Suppress titles. The Suppress communication (relative to Neutral) just produced a main effect, such that it made everyone feel more positive about reading the Suppress over Perform-oriented article titles.

These data also provide support for the prediction that low SA women alone rely on their pre-existing attitudes when making decisions. Perform scores at the mass screening predicted their liking of the Perform over the Suppress-oriented article titles, and Suppress scores at the mass screening predicted their liking of the Suppress over the Perform-oriented article titles. Further, low SA women who read the Perform communication (vs. Neutral) did not respond in an assimilative direction. Instead, their pre-existing Suppress attitudes (low Perform/high Suppress group) predicted a contrast effect such that they expressed greater liking for the Suppress over the Perform-oriented article titles. In addition, their pre-existing Perform attitudes (high Perform/low Suppress) predicted a similar degree of positivity towards the Perform over Suppress-oriented article titles as in the Neutral communication condition. It is likely that their Perform-oriented preferences were already so high at baseline that the Perform communication maintained those attitudes, but did not work to elevate them further.

Low SA women, unexpectedly, were influenced by the content of the Suppress communication. That is, reading the Suppress communication (vs. Neutral) predicted preferences for the Suppress over the Perform-oriented article titles. It is not clear why the

Suppress communication was so influential. It is possible that because the Suppress communication fits readily with the abstinence-only education that women may have formally received in middle and high school, they found it particularly influential. Similarly, because Suppress attitudes represent the safer, less risky option they may be particularly salient for the majority of women regardless of SA. Additionally, because women tend to endorse Perform attitudes more than Suppress attitudes in general<sup>25</sup>, it may be easier to prime Suppress attitudes and hence influence Suppress beliefs, relative to Perform attitudes, which are already quite high. And similarly, because Perform attitudes tend to be high overall, it may actually be easier for Suppress primes to lower them, which could also explain why even high Perform/low Suppress women responded to the Suppress prime.

Ratings of positivity or negativity towards article titles may not be directly applicable to the decisions a woman might make in a sexual encounter. But these data do lend support to the prediction that high SA women would be particularly influenced by situational cues in a sexual encounter. And similarly, these data lend support to the prediction that low SA women would rely on their pre-existing attitudes about sexual expression in the context of a sexual encounter. In addition, it appears that all women are particularly responsive to Suppress attitudes, perhaps because following Suppress attitudes reflects a safer, less risky choice in the context of a sexual encounter.

In this study, I used persuasive communications to prime Perform and Suppress attitudes, but did not use a communication that primed both types of attitudes simultaneously. It would be interesting to examine decision-making for high SA women were I to prime or amplify their SA

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<sup>25</sup> For the Study 4 sample, unstandardized mass screening Perform scores ( $M = 4.04$ ,  $SD = 1.01$ ) were significantly higher than unstandardized mass screening Suppress scores ( $M = 3.14$ ,  $SD = 1.03$ ),  $F(1, 118) = 39.36$ ,  $p < .001$ .

via situational cues. As noted above, prior research on ambivalence suggests that doing so would increase decision-making times (Bargh et al., 1992), but it is not clear what prediction could be made for the outcome of their decisions in this context. The data from Study 3 and Study 4 suggest women might choose the safe, less risky option, which corresponds to their Suppress attitudes. So I would predict that when primed with both Perform and Suppress, high SA women would choose the option that corresponded to their Suppress attitude, but might be slow to make this choice.

One additional limitation of the present study is the small sample size, which left cell sizes ranging from 16-23 participants per cell if we consider the number of participants in each communication condition split by high vs. low SA. Thus, there may not have been enough power to detect some of the effects, which may have resulted in several of the marginally significant effects that I described above. Taken as a whole, however, it is striking that I was able to attain the effects that I did given these low cell sizes, which also suggests that some of these effects are rather strong.

These data also provide evidence that the SAQ has good test-retest reliability. Perform, Suppress, and SA scores during the mass screening were highly correlated with scores collected up to 2 months after the mass screening data was collected. And these correlations were high even at the end of a study that included persuasive communications meant to advocate for either Perform or Suppress messages. Further, the fact that these correlations remained strong despite the persuasive communications suggests that Perform, Suppress, and thus SA attitudes may be relatively stable in participants at this age, and thus somewhat difficult to change as a whole.

## **General Discussion**

In this research, I argued that the American culture provides heterosexual women with mixed and conflicting messages about their sexuality, which teach women that they should both “always appear sexually available” (Perform) but at the same time “just say no” to sexual expression and activity (Suppress). The goal of the present research was to develop a reliable and valid measure of women’s endorsement of these mixed messages about sexual expression, the Sexual Ambivalence Questionnaire (SAQ). I established that some women do indeed endorse Perform and Suppress messages, and that some women endorse both messages simultaneously (SA). Thus, I provided evidence that Perform and Suppress beliefs are best viewed as separable constructs rather than as a dichotomy. I demonstrated that endorsement of Perform and Suppress messages, either separately or at the same time, does have implications for women’s attitudes, behaviors, and preferences. I also delineated the process by which SA may impact women’s susceptibility to environmental influences, via reliance on situational cues for sexually ambivalent women and via reliance on pre-existing attitudes for non-ambivalent women. That is, I argue that sexual ambivalence could create unstable and pliable attitudes that are less predictive of behavior due to the attitude polarization that results from reliance on situational cues. Further, I provided evidence that the SAQ is both a reliable and valid measure that would be useful for future research on women’s sexual attitudes and decision-making.

### **Convergent and Discriminant Validity of the SAQ**

The findings in Study 3 provided evidence of the convergent and discriminant validity of the SAQ and broaden our understanding of how endorsement in Perform and Suppress messages, and SA, are associated with other important attitudes and sexual behaviors.

I have argued that women learn that they should Suppress their sexuality because sexuality represents a domain in which (a) women must demonstrate that they are morally virtuous and (b) good feminine women, and (c) must avoid the risks and dangers inherent in sexual activity. Thus, while I predicted that these messages may work to decrease engagement in risky behaviors, I also predicted that they would negatively predict the development of a healthy sexual subjectivity and would reinforce endorsement in traditional gender roles. Because Suppress messages advocate that women should be morally pure and virtuous, I predicted, and found that Suppress endorsement was positively related to holding more conservative, religious, and moral values. Because Suppress messages teach women that they must be concerned about ensuring that others perceive them to be modest and self-respecting, I predicted, and found, that Suppress endorsement was positively correlated with concerns with the opinions of others and with concerns with one's appearance. In support of my contention that Suppress messages promote fear and anxiety about sexual expression, Suppress attitudes were linked to concerns about physical safety, body shame, having a more negative sexual self-concept, and to feeling conflicted (felt ambivalence) about sexual expression. Also in support of my prediction that Suppress messages promote traditional gender roles, Suppress endorsement was also predictive of holding traditional (sexist) attitudes about men and women, and more particularly, beliefs that men should have higher status in society than should women. Not surprisingly, Suppress attitudes were also linked to engaging in fewer sexual behaviors and less alcohol use. I also predicted, and found, that Suppress attitudes were somewhat positively associated with but distinct from more general trait avoidance tendencies and negatively related to but distinct from trait extraversion. While it may be the case that endorsing Suppress attitudes reduces the likelihood of engaging in risky behaviors, it is also likely that endorsing Suppress attitudes fails



to promote sexual exploration and the development of a healthy sexual subjectivity and promotes traditional and non-egalitarian beliefs about men and women in society.

I have argued that Perform messages teach women that they should always (a) appear sexually available in order to prove their desirability and sexual attractiveness to men, (b) irrespective of their own embodied desires. Further, (c) women are told that this type of sexual performance is mark of their status as a sexually empowered and liberated women, and that the ultimate form of power a woman should seek is the power to incite desire and lust. As with Suppress messages, women's desires are constructed to be responsive to those of men, rather than as active and embodied within the woman herself. In support of my contention that Perform messages are not liberatory or sexually empowering for women, Perform attitudes were positively associated with the propensity to be concerned with the opinions of others, to self-objectify, and to hold traditional (sexist) attitudes about men and women. The tendency to self-objectify is also indicative of feeling that one must be responsive to the desires of others (in this case, responsive to men's desires that she have an attractive body) rather than to her own embodied desires. I also predicted that while Perform attitudes might not be predictive of a negative sexual self-concept, that they would not predict a positive sexual self-concept. This prediction received partial support for Perform beliefs were not associated with holding a more positive sexual self-schema, somewhat negatively associated with body esteem, and positively associated with conscious feelings of being torn or conflicted about engaging in sexual expression (felt ambivalence). However, Perform was somewhat positively associated with several components of sexual self-esteem, in particular with pleasure, receiving, giving and general sexual self-esteem, though several of these associations were quite small. With respect to sexual behaviors and alcohol use, however, in support of the prediction that Perform messages

promote engaging in sexual expression to prove one's desirability to others in the context of the hookup culture, which often combines sexual behaviors with alcohol use, Perform was positively associated with engaging in casual sex, with binge drinking, and with alcohol consumption prior to sexual activity. I also predicted, and found, that Perform attitudes were somewhat positively associated with but distinct from more general trait approach tendencies, but were not related to trait extraversion. Thus, while endorsement in Perform messages may promote sexual exploration and does not necessarily promote risk (e.g., having unprotected sex), it may promote self-objectification and occur in the context of the "hookup culture" such that it does not always promote the development of a positive sexual subjectivity or egalitarian beliefs about men and women in society.

Finally, with regards to SA, as predicted SA was positively associated with feelings of conflict about sexual expression (felt ambivalence), but was not associated with preferences for consistency or with alcohol use as I had predicted. While I did not make any predictions about the associations between SA and the majority of the individual difference measures or the sexual outcomes, some interesting patterns emerged. With regards to the individual differences, the pattern of relationships largely followed the pattern of Perform and Suppress associations, likely due to the manner in which the Griffin formula is calculated. That is, when both Perform and Suppress were similarly associated with a particular outcome, then SA was similarly associated as well. When Perform and Suppress were differentially associated with an outcome, then SA was either not associated or tended to follow the pattern of the strongest Perform or Suppress association. But more interestingly, after I controlled for both Perform and Suppress in order to examine to what extent SA was predictive of the outcomes above and beyond these constructs, most of the relationships were no longer significant with a notable exception of the sexual

attitudes and behaviors. In particular, SA tended to be negatively associated with sexual behaviors and attitudes about casual sex, even after controlling for both Perform and Suppress beliefs, suggesting that SA does have some unique predictive power in the context of sexual behaviors. This pattern points to two interesting conclusions. First, as these associations were negative it appears that as conflict about sexual expression increases, women tend to make choices that are consistent with the safe or less risky option, which in this context is a choice consistent with Suppress attitudes. Second, it lends support to the contention that SA may be most important in the context of understanding in-the-moment, context specific decision making that leads to sexual behaviors. This contention is further supported by the data from Study 4, which indicated that high SA women tend to be more influenced by situational cues when making decisions. I discuss this conclusion in more detail below in the context of the results of both Studies 3 and 4.

### **The Utility of Measuring Perform, Suppress, and SA Attitudes**

The results of the studies presented here suggest that using the SAQ to assess women's Perform, Suppress, and SA attitudes can have utility for understanding other important attitudes, beliefs, and behaviors. However, the present data suggest that it is important to make the distinction between associations with (a) individual differences (Study 3), and (b) associations with both behaviors (Study 3) and predicting decision-making preferences (Study 4). Further, additional research is necessary to examine the influence of situational cues on attitudes and behaviors, and to strengthen our understanding of the manner in which SA may influence the attitude-behavior link in a more ecologically valid context.

**Individual differences.** With regards to examining the relationship between Perform, Suppress, and SA and other individual difference measures, the data from Study 3 suggest that it is sufficient to focus on only Perform and Suppress attitudes. That is, knowing participant Perform and Suppress scores was sufficient to understand women's responses on the other individual difference measures, and even some behavioral outcomes (i.e., casual sex behaviors, alcohol use). Although, it should be noted that the individual differences in Study 3 were included primarily to examine the convergent and discriminant validity of the Perform and Suppress constructs, and thus may not have been as relevant for examining the construct validity of SA above and beyond the Perform and Suppress constructs. SA tended to follow the same pattern as the Perform and Suppress correlations, depending upon which of these associations were the strongest and most consistent across both Perform and Suppress attitudes. This is likely due to the manner in which the Griffin formula calculates SA scores.

**Behaviors and decision-making.** The present data suggest that SA may have the most utility as a construct in decision-making and behavioral contexts. While knowing Perform and Suppress attitudes was sufficient for predicting individual difference outcomes, in the context of predicting women's behaviors (Study 3) and responsiveness to situational cues when indicating preferences (Study 4), SA was useful above and beyond Perform and Suppress attitudes. In Study 3, I found that even after I controlled for Perform and Suppress attitudes, SA was linked to holding less favorable attitudes about casual sex and to engaging in fewer sexual behaviors (both total number of sexual partners and casual sex partners). In Study 4, I found that SA influenced the extent to which women were influenced by situational cues (persuasive communications), suggesting that SA is important for understanding in-the-moment decision-making. In particular, high SA women made decisions about their preferences for reading articles that were

consistent with manipulated Perform and Suppress-oriented situational cues (vs. Neutral, Get-Involved cues). Conversely, low SA women relied on their pre-existing Perform and Suppress attitudes (measured several months earlier) when indicating their preferences. It should also be noted that the content of the Suppress communication also influenced low SA women in an assimilative direction such that Suppress cues predicted more Suppress-oriented preferences. While indicating preferences for reading articles may not map directly onto the types of decisions women make in sexual contexts, it does suggest that SA renders women particularly susceptible to the influence of situational cues, which is consistent with previous research on ambivalent attitudes and susceptibility to persuasion. Thus, SA as a construct is likely useful in understanding what information women rely on to make sexual decisions in the context of a sexual encounter, and thus is important for understanding women's in-the-moment sexual decision-making process.

As I have noted, there is some indication that women may often rely on the safe, less risky option, which corresponds to the Suppress component of their attitude. In Study 3, SA was associated with the same pattern of sexual behaviors as were Suppress scores, which corresponded to less favorable attitudes about casual sex and less sexual behavior. In Study 4, reading a Suppress communication (vs. Neutral) led women, both high and low in SA, to indicate greater preferences for Suppress over Perform-oriented article titles. And for low SA women, their pre-existing Suppress attitudes also predicted more Suppress-oriented preferences. Thus, while I have argued that endorsement of Perform and Suppress attitudes is problematic for holding healthy attitudes about oneself (e.g., self-objectification), for holding non-egalitarian attitudes about gender roles, and for holding a negative sexual-self concept, Suppress attitudes and SA do appear to be associated with engaging in fewer potentially risky behaviors, such as

casual sex, due to this reliance on Suppress attitudes and cues. In addition, because Suppress attitudes tend to be lower than Perform attitudes in general, it may be easier to prime and influence Suppress attitudes such that they impact decision-making. That is, if Perform attitudes already tend to be high, then there would be more room for increasing Suppress attitudes. Similarly, because Perform attitudes tend to be higher overall than Suppress attitudes, then it might also be easier to lower Perform attitudes by priming Suppress attitudes.

The data suggest that Perform beliefs are also important for predicting behaviors. The findings in Study 4 that, for high SA women, the Perform cues provided in the persuasive communication (vs. Neutral) predicted more favorable attitudes towards Perform over Suppress-oriented article titles, and for low SA women, that pre-existing Perform attitudes also predicted more favorable Perform-oriented preferences both suggest that Perform attitudes may be predictive of behaviors in sexual contexts. The findings of Study 4 suggest that the heightened susceptibility to situational cues for high SA women might render them more easily persuaded to engage in activities that are linked to Perform attitudes, such as having sex to please a partner rather than to satisfy one's own embodied desires. The fact that in Study 3 Perform attitudes were positively associated with casual sex attitudes and behaviors and with alcohol use prior to sexual intercourse support my contention that Perform cues, if strong and salient enough, might lead to similar behaviors in a sexual context. Perhaps high SA women do not often put themselves in *sexual* situations that contain Perform cues, but when in these situations they may actually engage in more Perform-oriented behaviors due to heightened susceptibility to situational cues and attitude polarization that results from reliance on these cues. And further, these data suggest that while endorsement in Perform messages may lead to more sexual exploration relative to endorsement in Suppress messages, it may not be the kind of sexual

exploration that promotes the development of a healthy sexual subjectivity or egalitarian beliefs about men and women in sexual relationships. Thus, the links between Perform attitudes and sexual behaviors, particularly in the context of the “hookup culture” on college campuses, need to be more fully explored.

### **Limitations**

The methodology I used in several of the present studies has some limitations. First, I only measured Perform, Suppress, and SA in Study 3, and so cannot conclude that the relationship between these attitudes and the behavioral outcomes is a causal one. However, in manipulating situational Perform and Suppress cues in Study 4, I was able to lend support to my argument that SA can directly impact situational decision-making, particularly for high SA women who rely on these cues. In future research, I could also examine the utility of manipulating sexual ambivalence in the laboratory such that I would be able to establish some causal links. In Study 4, I used participant scores on the SAQ to measure and classify women as high and low SA, but I did not manipulate SA. To do so, I could, for example, develop a persuasive communication similar to the ones used in Study 4 that advocates for both Perform and Suppress attitudes, or ask women to write about a time when they experienced conflict about Performing (appear sexually available) and Suppressing (just say no) their sexuality. Manipulating SA would allow me to test the hypotheses such as, SA: (a) causes women conflict and distress in sexual contexts, (b) leads to choosing the safer, less risky option (as suggested in Study 3), and (c) increases the amount of time it takes women to make decisions when both Perform and Suppress attitudes are activated. Were I to first manipulate SA and also manipulate the salience of situational Perform and Suppress cues, I could also further examine the predictions I tested in Study 4, namely that (a) high SA women are particularly susceptible to the

influence of situational cues when making decisions, and (b) make these decisions quickly when only one component of the attitude is made salient.

Second, the sample used in the present study consisted largely of college-aged, heterosexual, Caucasian women, and in Study 4 this sample was rather small. I suspect that one reason why this sample of women did not endorse the Protect statements (Study 2) is because at this age such messages are not as salient as they are to younger women in high school and middle school. As such, it may still be important to look at women's endorsement of Protect messages within a younger sample.

It is also important for future work to examine the generalizability of this scale to other groups of women, specifically women who are not Caucasian, heterosexual, or part of a college undergraduate sample. It is likely that the scale would need to be adapted for administration to a non-heterosexual sample because several of the statements make reference to proving desirability for men, which may not apply to non-heterosexual samples. It is likely that women of a different SES and racial/ethnic minority status might have a different distribution of scores across the Perform and Suppress scales. For instance, Tolman (2002) discusses the fact that women of color and who have low SES are often singled out even more as women for whom sexual expression is dangerous. These women are often given "bad girl" labels and do not have the same resources as white women and women of higher SES. Thus, scores on the Suppress subscale as measured in this study (containing mostly Hide items) might be higher for this group. And it is also possible that the Protect subscale might emerge as a distinct factor from Hide. In addition, it would be interesting to examine scores for women who are either not in college or have finished college in that women who are not in college are likely not part of the "hookup culture" to the same extent. And older women have had more time and experience to develop



their sexual self-concepts. Thus, I would predict that Perform scores would be lower in non-college or post-college samples.

Third, while I demonstrated that SA influenced women's preferences for reading article titles consistent with Perform and Suppress messages, this decision-making outcome is not necessarily indicative of how women make decisions in sexual contexts where the stakes are much higher and where they are likely more invested in the outcome. As a first step in establishing the importance of SA for sexual decision-making and in order to assess the RT hypotheses, it made sense to use this type of methodology. However, future research should use methodology that attempts to overcome these limitations such as the use of a vignette describing a sexual encounter such that situational cues could be manipulated and behavioral intentions assessed. Sexual vignettes have been used successfully in other studies to manipulate approach/impelling (Perform cues in this context) and avoidance/inhibiting cues (Suppress cues in this context; Cooper, 2002) in a situational context such that these cues helped to predict women's behavioral intentions for engaging in risky and non-risky sexual behaviors (Norris, et al., 2009; Zawacki, et al., 2009). It might also be useful to use a daily diary study or experience sampling study that can better capture the links between women's attitudes and actual sexual behaviors and that would be more personally relevant. Future research on the importance of SA for decision-making in a context that is more closely tied to a sexual encounter may help to strengthen the case for why understanding SA is key to understanding some women's in-the-moment sexual decisions.

Finally, I manipulated the salience of situational Perform and Suppress cues in Study 4 in a very overt and obvious fashion with the persuasive communications. Because situational cues and influence attempts in real sexual encounters may not always be so obvious to detect, it would

also be interesting and perhaps more ecologically valid to manipulate the salience of situational cues more subtly. For instance, I could ask women to look at images or read words that are consistent with Perform and Suppress attitudes under the guise of a separate experiment. Or I could place cues in the laboratory environment that might prime either Perform or Suppress attitudes. Both would help me to determine whether situational cues that are very subtle would have the same impacts on high SA women's in-the-moment decision-making as would more overt and obvious attempts at influence.

### **Conclusion and Future Directions**

Some researchers have suggested that because ambivalence attenuates the attitude-behavior link, reducing ambivalence may be particularly important in the context of developing interventions meant to create attitude and behavior change (Priester, 2002). However, my research suggests that intervention might be targeted at two sources: the source of the ambivalence (e.g., change the cultural mixed messages that women receive so that women do not become ambivalent) and the situational cues that ambivalent women respond to during sexual encounters. Changing the cultural mixed messages that women receive about sexuality from the media and from abstinence-only education is difficult and likely a long-term solution. In the short term, it may be better to teach ambivalent women to critically examine the influence of cues on their decisions in sexual situations and/or help them to introduce healthier cues, perhaps in the form of cognitions that affirm their entitlement to sexual agency, autonomy, and pleasure. Further, this research suggests that with regards to risk prevention interventions, these interventions should look different for ambivalent vs. non-ambivalent women. For non-ambivalent women, influencing their attitudes prior to sexual encounters will have the most potential for reducing risky behavior. For ambivalent women, one approach would be to (a)

influence their situational cognitions and susceptibility to influence by situational cues in the short term, and another would be to (b) change their attitudes such that they are no longer ambivalent in the long term.

If one's goal is to merely reduce the likelihood of engaging in risky behaviors, then, at first glance, the present data seem to suggest that it is important to increase Suppress-oriented attitudes, and perhaps to decrease Perform-oriented attitudes. This is because endorsement in Perform attitudes was associated with engaging in potentially risky behaviors such as casual sex and alcohol use during sexual activity. Endorsement in Perform messages was also associated with self-objectification, endorsement in traditional gender roles, and did not always promote holding a positive sexual self-concept. Conversely, Suppress attitudes were associated with engaging in less risky behaviors such as casual sex and alcohol use during sexual activity. However, endorsement in Suppress messages also predicted the development of a negative sexual self-concept (e.g., less enjoyment of sexual pleasure), self-objectification, and endorsement of non-egalitarian gender roles. Thus, the present data suggest that women's endorsement of Suppress attitudes is also quite problematic if one holds a view of sexual development that goes beyond merely preventing risky behaviors, but rather also hold that sexual development should be about developing a more healthy sexual subjectivity.

An additional step for this research that moves beyond problematic Perform and Suppress messages, and beyond risk behaviors as outcomes, is to examine the ways in which women can effectively develop a healthy sexual subjectivity. Developing as a healthy sexual person is important because it encompasses the ability to acknowledge sexual feelings, the freedom and comfort to explore those feelings, the freedom to refuse sexual activity, and the knowledge one needs to engage in behaviors that protect against Sexually Transmitted Infections (STIs; e.g.,

HIV, HPV) and pregnancy, which has been referred to as sexual subjectivity (Impett et al., 2006). This research represents a first step in understanding how women's endorsement of problematic and prevalent messages about sexual expression (Perform and Suppress) can lead to negative consequences, both in terms of sexual risks and the stifling of healthy sexual development. While reducing risk is important, it should not come at the cost of healthy sexual exploration and sexual development. I did not include women's endorsement of legitimately positive messages about sexual expression, because such messages are largely not a part of the media and school education that women receive about sexuality. Thus, it may be that to truly aid in the development of a healthy sexuality, the educational messages that women receive as a whole must change. New messages can give more weight to the "positive possibilities" (Vance, 1984) of sexual expression, such as "explorations of the body, curiosity, intimacy, sensuality, adventure, excitement, [and] human connection" (p. 1). They can teach women to be more critical consumers of media messages that equate sexual liberation with a sexy appearance (Levy, 2005). And new messages can teach young women that it is okay to express and explore their own embodied sexual desires so long as they are doing so safely (e.g., using protection behaviors) and in ways that respect both the sexual subjectivities of themselves and their sexual partners. Thus, in the spirit of trying to encourage healthy sexual development, it would also be useful to create legitimately positive messages about sexual expression and examine their utility at reducing risk and encouraging healthy sexual development. However, it is also important to consider that even if more positive messages were introduced into the education that women receive about sexuality, these messages might conflict with the Perform and Suppress messages that I have described here and might represent a third, separate factor capturing women's attitudes about sexual expression. Thus, until we can rid our culture of harmful Perform and

Suppress messages, or at least teach women to critically examine, debunk, and resist their influence, even introducing more positive messages might not be enough to fix the issue.

This research represents a new approach to thinking about women's sexual decision-making in the context of the cultural messages they receive about their sexuality, which is recognition of the importance of the construct of sexual ambivalence. The research also allows for a greater understanding of how interventions aimed at reducing risky sexual behaviors could be tailored to fit their audience (e.g., sexually ambivalent vs. non-ambivalent women). Further, it enriches the literature on ambivalence more generally by contributing to our understanding of how the construct works to influence the decision-making process in the specific domain of sexuality. I argue that ultimately it is important to reduce the conflicting Perform and Suppress messages that women receive about their sexuality, and also to introduce more legitimately positive messages in the media and in school sex education so that they can develop into healthy sexual people. However, this work represents an important first step in developing a means of measuring problematic attitudes with the SAQ and understanding the negative impacts that these attitudes can have on attitudes, beliefs, and behaviors.

In sum, in this research, I set out to develop a reliable and valid measure of women's endorsement of two prominent, and conflicting, messages about sexual expression (Perform and Suppress), which I call the Sexual Ambivalence Questionnaire (SAQ). I established that women do endorse both Perform and Suppress messages, and that some women endorse both messages at the same time (SA). I demonstrated that endorsement in Perform and Suppress messages should not be thought of as a dichotomy, but rather as separate constructs that both have important implications for attitudes, behaviors, and decision-making. I also provided evidence of the process by which SA can influence decision-making, namely by increasing women's

reliance on situational cues such that their attitudes become polarized. This research was a necessary first step in increasing our understanding of how women's endorsement of problematic cultural messages about sexual expression can influence their attitudes and decision-making, as it is the first study to develop a measure of women's endorsement of these messages. Future research can now use the SAQ to contribute to our knowledge of these processes. While this research did provide evidence of (a) the associations between Perform, Suppress, and SA and important attitudes and behaviors and (b) the manner by which SA might influence decision-making, future research would broaden this knowledge by addressing the influence of SA on decision-making in a context that links more directly to women's sexual behaviors.

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## Appendix A: Q-Sort Interview Script

Introduce myself and thank the student for helping with the research. Ask the student to write her name on the sign-up sheet to ensure that she gets credit course credit. Give the student a copy of the informed consent form and ask her to read and sign. Ask her if she has any. Remind her that her name will not be associated with any of her responses to the interview. Ask her for permission to audio record the interview so that I can be sure that I do not miss any of her responses or any of our discussion. Remind her that my research assistants and I are the only people who will have access to the recording and that the recording will not be associated with her name.

[start audio recorder] (Say, “Now I am going to start the audio recorder and begin the interview”)

### Part I:

Reiterate the purpose of the interview: “Okay, now I want to tell more about the study before we get started. As you read on the consent form, I’m interested in the thoughts that women have about being sexual. Right now I’m focusing on three main themes that represent messages that women get about their sexuality. I am developing a measure to assess women’s endorsement of these themes and would like your feedback with creating this measure. I will not ask you to share any personal information about yourself in terms of whether you agree with these themes, but rather will ask for your help with creating a quality measure. Now I will show you the three themes that I am trying to measure.”

[read each definition aloud with her; define key terms; give examples; ask for comments/thoughts]

“Now, for each theme, I’d like you to use this rating sheet to let me know whether you think the message in each theme is a message that women receive about their sexuality. That is, to what extent do you think that women actually receive each of these messages based on your own perceptions and experience?”

Instructions: To what extent do you think each theme fits with a message that women receive about their sexuality?

1	2	3	4
Not at all	A little	Somewhat	Very much

### Part II:

“Okay, on this next sheet I have a list of typical thoughts that women have about being sexual. I will give you the thoughts written here as statements and ask you some questions about them.”

[Hand her the sheet with the statements, but cover all but the ratings at first.] “First I will tell you the information I’m looking for and then I’ll show you the statements.”

“So as you see on the sheet, I’d like you to do several things for each statement. First, I’d like you to indicate which theme you think the statement fits with best by circling the letter. That is, which of these three themes do you think I am trying to measure with each statement, A, B, or C? Next, I’d like you to rate how well each item fits with the theme you selected. That is, given the definitions we read, how well would each item measure someone’s agreement with the definition you chose?”

“Before you begin I have a couple of additional instructions. First, as you work through the items I would like to use a “talk aloud procedure.” That is, rather than just making this a typical paper and pencil study, I’d like to hear your thoughts and reactions to the statements. So, as you work through the items, please read each statement out loud and let me know what your thought process is as you are making your ratings. That is, let me know your reactions to them and give me some information about how you are making your choices and ratings. For instance, you could let me know why you think the statement fits best with a particular theme. You could let me know if you think the statement is particularly good or accurate, or whether you think the statement is particularly poor or inaccurate. You can also suggest wording changes if you think any of them sound strange and we will write your suggested changes on the sheet. I’m interested in your first impressions and gut reactions as you read the statements, so please share anything you are thinking.”

“Second, some of the items are what we call “negatively worded” items. Let me illustrate with an example. Let’s say I am trying to assess how talkative and outgoing someone is. I could say “I like to talk with people at parties” and someone who is very friendly would rate their agreement with this statement very highly. I could also say “I do not like to talk with people at parties,” and this same person would now make the exact opposite rating. That is, I am measuring the exact same thing, only one of the statements is the mirror opposite. Does that make sense? There are a couple of negatively worded items in the list I will give you, so please keep that in mind as you go. I will ask you to write an “N” next to each statement that you think is a negatively worded item.”

Instructions: (1) Please match each statement to a theme using the definitions provided by circling the appropriate letter (A, B, or C) and (2) then rate how well each item fits with the theme you chose using the scale:

1	2	3	4	5
A little		Somewhat		Very much

When making ratings for negatively worded items, participants were instructed to reword each statement as “positively worded” item so that their ratings would be interpretable and consistent across all items.

[let her work through the statements and probe as she goes. Record on the sheet any statements that gave her particular trouble. Record if she was torn between several themes for any one statement.]

Part III:



When she is finished, “Good, now I will re-read the items that you selected for each theme. As I read them, I would like you to let me know if there are any changes that you would make to the items. When I finish reading, I will also ask you if you can think of any additional items not on this list that you think would also do a good job of measuring the theme. Any questions?”

Debrief the participant when she is finished, “Okay, that’s all the questions I have for you. Do you have anything else to add or any questions for me about the study? Just to reiterate, I’m interested in the thoughts that women have about being sexual. I’m hoping to use the information that I get from this study to develop a measure to assess these thoughts. Then later I plan to look at some of the sexual behaviors that women engage in and how they might be related to these thoughts. For instance, I am interested whether women can agree with several of these themes at the same time, and whether that creates conflict. [give examples – perform vs. protect; perform vs. suppress] I’m also interested in whether endorsing some of the thoughts is related to risky sexual behavior like unprotected sex or to alcohol use. Thanks again for your help with my research.”

Give the student a copy of the consent form and debriefing form before she leaves.

## Appendix B: Q-Sort Interview Theme Definitions

Note: Participants were not given the name of each theme, only a letter (A, B, or C) and the definition. The names are provided here for clarity.

### *Theme A: Perform*

A good woman must perform her sexuality with the goal of getting attention from and provoking lust in either real or imagined others. This is because satisfying the desires of others, irrespective of her own feelings of desire, provides proof/evidence of her worth as a woman.

Definitions of underlined words appear below:

Perform: This can include any mode of performance including visual (appearance), verbal (speech), or physical (behavior).

Real or imagined others: This includes actual interactions with one or multiple people, and also includes imagined interactions with others (e.g., fantasies).

Worth: One's value to others and to oneself. For women, their value is often dependent upon their outward/physical appearance rather than on their inward/intrinsic characteristics (e.g., intelligence, personality). Further, because women's worth is often determined by her physical appearance, a woman's appearance can be exchanged for social (e.g., admiration, status) and tangible (e.g., money) rewards, and can thus be used as a form of social currency.

### *Theme B: Suppress - Protect*

A good woman is concerned about the negative physical costs (e.g., STIs, unintended pregnancy) and psychological costs (e.g., use and abuse by men, including sexual coercion and violence) of engaging in sexual intercourse and believes she is responsible for protecting herself against these costs.

### *Theme C: Suppress - Hide*

A good woman suppresses/hides her sexuality (feelings and activity) in order to remain morally pure, virtuous, and chaste.

### Appendix C: Calculation of Substantive Validity Formulas

The *content-validity ratio* (CVR; Lawshe, 1975), is calculated as follows:

$$CVR = \frac{n_c - N/2}{N/2}$$

where  $n_c$  refers to the number of participants who matched the item with the intended theme<sup>26</sup> and  $N$  refers to the total number of participants. CVR ranges in value from -1.0 to 1.0 such that higher numbers indicating greater validity of the item. The critical or minimum value for the CVR with 25 participants is .37 (Lawshe, 1975) where items that do not meet this minimum should be considered for removal from the scale.

The *proportion of substantive agreement* (PSA; Anderson & Gerbing, 1991) represents the proportion of participants who matched the item with its intended theme. This formula is as follows:

$$p_{sa} = \frac{n_c}{N}$$

Here,  $n_c$  also refers to the number of participants who matched the item with the intended theme. PSA ranges from 0.0 to 1.0 where higher values indicating greater validity of the item. This formula is useful because it allows the researcher to examine whether the given item assesses the intended construct. However, it does not assess whether the item is also assessing other related constructs. There is no standard procedure for determining the critical value for this measure.

The *substantive-validity coefficient* (CSV) is calculated as follows:

$$c_{sv} = \frac{n_c - n_o}{N}$$

where  $n_c$  and  $N$  are defined as before, and  $n_o$  refers to the highest number of assignments of the item to any of the other constructs. CSV values range from -1.0 to 1.0 where higher numbers indicate higher validity of the item. This formula is particularly informative because negative values on this measure tell the researcher that there is another construct that is assessed by the item in addition to the posited construct. Just as with PSA, there is no standard procedure for determining the critical value for this measure.

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<sup>26</sup> Note that Lawshe (1975) asked participants to indicate whether a set of individual skills were essential for performance in a particular job using the following ratings: (a) essential, (b) useful but not essential, and (c) not important. The number of participants judging the skill as essential was  $n_c$  in the formula. Thus, I used the measure somewhat differently.

## Appendix D: SAQ Measure

Instructions: Next, you will see a series of statements about sex and sexuality. Please indicate your agreement with each of the following statements using the scale provided. We are interested in YOUR OWN opinions, not how you think others would answer or how you think a person should answer. Please answer each question as honestly and accurately as you can, but don't spend too much time thinking about each answer. Please respond to each item as if it were the only item. That is, don't worry about being "consistent" in your responses. Questions that ask you about having sex are referring to sexual intercourse.

1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

1. I try to be seductive.
2. I enjoy being wanted because I look sexy.
3. I sometimes take advantage of my looks to get what I want.
4. I enjoy being desired.
5. I like to flirt.
6. I sometimes try to look sexy even when I don't feel sexy.
7. I enjoy imagining how it feels to be the object of someone's desire.
8. I like to look sexy when I go out.
9. As a woman, I should flaunt what I have.
10. For me, looking sexy is a great way to get others interested in me.
11. It is important to me to know how to please men.
12. I like it when I am looked at more than the other girls in the room.
13. It feels good to know that a man wants to have sex with me, regardless of whether I'm interested in him.
14. For me, if I slept around I would feel that I was acting inappropriately.
15. As a woman, I must suppress my own sexual feelings.
16. For me, I think that having sex is dangerous.
17. Expressing my sexual feelings would make me feel bad or shameful.
18. As a woman, it is important for me to behave modestly.
19. Expressing my sexual feelings might make me feel like I had done something wrong.
20. To be a good woman, I must try to stay pure.
21. I don't really think about my own sexual feelings.
22. For me, I think that having sex is risky.
23. I would feel embarrassed if someone thought I wanted to have sex.
24. I try not to give in to my sexual feelings.
25. If I had sex, I would not want anyone to know.
26. I feel comfortable expressing my own sexual feelings.
27. I often think that it is wrong for me to have sex.

Note: Item 26 should be reverse scored. The Perform subscale consists of items 1-13. The Suppress subscale consists of items 14- 27.

## Appendix E: Study 3 Individual Difference Measures

## Demographics

1. Please indicate your age \_\_\_\_\_
2. Please indicate your sex: male, female, transgender
3. Please indicate your year in school: freshman, sophomore, junior, senior, other
4. Please indicate your race/ethnicity: Caucasian, African-American, Asian/Pacific Islander, Latin@, other – please specify
5. “When you think about your sexual orientation currently, what word do you most often use to describe yourself?” Available response options: exclusively straight/heterosexual, mostly straight/heterosexual, bisexual, mostly gay/lesbian, exclusively gay/lesbian, curious, questioning, I prefer not to label myself, other
6. I am currently in a romantic relationship. (yes or no)
  - a. If yes, specify length: 6 months or less, between 6 months and 1 year, greater than 1 year

**Concern with the Opinions of Others****Public Self-Consciousness** (Fenigstein et al., 1975)

Instructions: Please indicate how characteristic each statement is of you by using the scale provided.

0	1	2	3	4
extremely uncharacteristic				extremely characteristic

1. I’m concerned about my style of doing things.
2. I’m concerned about the way I present myself.
3. I’m self-conscious about the way I look.
4. I usually worry about making a good impression.
5. One of the last things I do before I leave my house is look in the mirror.
6. I’m concerned about what other people think of me.
7. I’m usually aware of my appearance.

**Contingencies of Self Worth** (Crocker et al., 2003)

Instructions: Please indicate your agreement with each statement using the scale provided.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

*Others’ approval subscale*

1. I don’t care what other people think of me. (R)
2. What others think of me has no effect on what I think about myself. (R)
3. I don’t care if other people have a negative opinion about me. (R)

4. My self-esteem depends on the opinions others hold of me.
5. I can't respect myself if others don't respect me.

### **Concern with Appearance**

#### **Contingencies of Self Worth** (Crocker et al., 2003)

Instructions: Please indicate your agreement with each statement using the scale provided.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

#### *Appearance subscale*

1. My self-esteem does not depend on whether or not I feel attractive. (R)
2. My self-esteem is influenced by how attractive I think my face or facial features are.
3. My sense of self-worth suffers whenever I think I don't look good.
4. My self-esteem is unrelated to how I feel about the way my body looks. (R)
5. When I think I look attractive, I feel good about myself.

#### **Objectified Body-Consciousness** (McKinley & Hyde, 1996)

Instructions: Please indicate your agreement with each statement using the scale provided.

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

#### *Surveillance Subscale*

1. I rarely think about how I look
2. I think it is more important that my clothes are comfortable than whether they look good on me
3. I think more about how my body feels than how my body looks
4. I rarely compare how I look with how other people look
5. During the day, I think about how I look many times
6. I often worry about whether the clothes I am wearing make me look good
7. I rarely worry about how I look to other people
8. I am more concerned with what my body can do than how it looks

#### *Body Shame Subscale*

1. When I can't control my weight, I feel like something must be wrong with me
2. I feel ashamed of myself when I haven't made the effort to look my best
3. I feel like I must be a bad person when I don't look as good as I could
4. I would be ashamed for people to know what I really weigh
5. I never worry that something is wrong with me when I am not exercising as much as I should
6. When I'm not exercising enough, I question whether I am a good enough person
7. Even when I can't control my weight, I think I'm an okay person

8. When I'm not the size I think I should be, I feel ashamed

### Conservative, Religious, and Moral Values

#### Contingencies of Self Worth (Crocker et al., 2003)

Instructions: Please indicate your agreement with each statement using the scale provided.

Strongly Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

#### *Virtue subscale*

1. My self-esteem depends on whether or not I follow my moral/ethical principles.
2. My self-esteem would suffer if I did something unethical.
3. I couldn't respect myself if I didn't live up to a moral code.
4. Whenever I follow my moral principles, my sense of self-respect gets a boost.
5. Doing something I know is wrong makes me lose my self-respect.

#### Religiosity (Impett et al., 2006)

Please indicate your agreement with the following statement: How important is religion in your life?

1	2	3	4
not at all			very

#### Moral Foundations Scale (Graham et al., 2009)

Instructions: Please indicate your agreement with each statement using the scale provided.

Strongly Disagree					Strongly Agree
1	2	3	4	5	6

#### *Purity subscale*

1. People should not do things that are revolting to others, even if no one is harmed.
2. I would call some acts wrong on the grounds that they are unnatural or disgusting.
3. Chastity is still an important virtue for teenagers today, even if many don't think it is.
4. The government should try to help people live virtuously and avoid sin.

### Endorsement of Traditional Gender Roles

#### Ambivalent Sexism Inventory (Glick & Fiske, 1996)

Instructions: Please indicate your agreement with each statement using the scale provided.

1=strongly disagree, 7=strongly agree

1. No matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman.
2. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."
3. In a disaster, women ought not necessarily to be rescued before men.
4. Most women interpret innocent remarks or acts as being sexist.
5. Women are too easily offended.
6. People are often truly happy in life without being romantically involved with a member of the other sex.
7. Feminists are not seeking for women to have more power than men.
8. Many women have a quality of purity that few men possess.
9. Women should be cherished and protected by men.
10. Most women fail to appreciate fully all that men do for them.
11. Women seek to gain power by getting control over men.
12. Every man ought to have a woman whom he adores.
13. Men are complete without women.
14. Women exaggerate problems they have at work.
15. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.
16. When women lose to men in a fair competition, they typically complain about being discriminated against.
17. A good woman should be set on a pedestal by her man.
18. There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing male advances.
19. Women, compared to men, tend to have a superior moral sensibility.
20. Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.
21. Feminists are making entirely reasonable demands of men.
22. Women, as compared to men, tend to have a more refined sense of culture and good taste.

**Ambivalence towards Men inventory** (Glick & Fiske, 1999)

Instructions: Below are a series of statements concerning men and women and their relationships in contemporary society. Please indicate the degree to which you agree or disagree with each statement using the scale below:

0	1	2	3	4	5
disagree strongly	disagree somewhat	disagree slightly	agree slightly	agree somewhat	agree strongly

1. Even if both members of a couple work, the woman ought to be more attentive to taking care of her man at home.
2. A man who is sexually attracted to a woman typically has no morals about doing whatever it takes to get her in bed.
3. Men are less likely to fall apart in emergencies than women are.
4. When men act to "help" women, they are often trying to prove they are better than women.
5. Every woman needs a male partner who will cherish her.



6. Men would be lost in this world if women weren't there to guide them.
7. A woman will never be truly fulfilled in life if she doesn't have a committed, long-term relationship with a man.
8. Men act like babies when they are sick.
9. Men will always fight to have greater control in society than women.
10. Men are mainly useful to provide financial security for women.
11. Even men who claim to be sensitive to women's rights really want a traditional relationship at home, with the woman performing most of the housekeeping and child care.
12. Every woman ought to have a man she adores.
13. Men are more willing to put themselves in danger to protect others.
14. Men usually try to dominate conversations when talking to women.
15. Most men pay lip service to equality for women, but can't handle having a woman as an equal.
16. Women are incomplete without men.
17. When it comes down to it, most men are really like children.
18. Men are more willing to take risks than women.
19. Most men sexually harass women, even if only in subtle ways, once they are in a position of power over them.
20. Women ought to take care of their men at home, because men would fall apart if they had to fend for themselves.

### Male Role Norms Scale (Thompson & Pleck, 1986)

Instructions: Please indicate your agreement with each statement using the scale provided.

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	7

### *Status Subscale*

1. Success in his work has to be man's central goal in this life.
2. The best way for a young man to get the respect of other people is to get a job, take it seriously and do it well.
3. A man owes it to his family to work at the best-paying job he can get.
4. A man should generally work overtime to make more money whenever he has the chance.
5. A man always deserves the respect of his wife and children.
6. It is essential for a man to always have the respect and admiration of everyone who knows him.
7. A man should never back down in the face of trouble.
8. I always like a man who's totally sure of himself.
9. A man should always think everything out coolly and logically, and have rational reasons for everything he does.
10. A man should always try to project an air of confidence even if he really doesn't feel confident inside.
11. A man must stand on his own two feet and never depend on other people to help him do things.

*Toughness Subscale*

12. When a man is feeling a little pain he should try not to let it show very much.
13. Nobody respects a man very much who frequently talks about his worries, fears, and problems.
14. A good motto for a man would be “When the going gets tough, the tough get going.”
15. I think a young man should try to become physically tough, even if he’s not big.
16. Fists are sometimes the only way to get out of a bad situation.
17. A real man enjoys a bit of danger now and then.
18. In some kinds of situations a man should be ready to use his fists, even if his wife or his girlfriend would object.
19. A man should always refuse to get into a fight, even if there seems to be no way to avoid it.

*Anti-femininity Subscale*

20. It bothers me when a man does something that I consider “feminine.”
21. A man whose hobbies are cooking, sewing, and going to the ballet probably wouldn’t be my kind of guy.
22. It is a bit embarrassing for a man to have a job that is usually filled by a woman.
23. Unless he was really desperate, I would probably advise a man to keep looking rather than accept a job as a secretary.
24. If I heard about a man who was a hairdresser and a gourmet cook, I might wonder how masculine he was.
25. I think it’s extremely good for a boy to be taught how to cook, sew, clean the house, and take care of younger children.
26. I might find it a little silly or embarrassing if a male friend of mine cried over a sad love scene in a movie.

**Sexual Self-Concept****Sexual Self-Esteem Scale** (Gaynor & Underwood, 1995)

Instructions: Please circle the letter that fits your experience according to the following scale:

SD	D	A	SA
strongly disagree	disagree	agree	strongly agree

*Subscale: safety*

1. I feel safe when I am in a sexual situation.
2. I tend to feel uncomfortable and anxious when I am in a sexual situation. (R)
3. I feel present and tuned into my body when I am in a sexual situation.
4. I feel guilty and anxious about sex. (R)
5. I have no painful memories during sex.

*Subscale: body*

6. When I look in the mirror, I criticize every little thing that seems wrong. (R)

7. I like and appreciate my body sexually.
8. I dislike my breasts, genitals, legs, buttocks, or face. (R)
9. Overall, I like my body a lot.
10. It's easy for me to find fault with my looks. (R)
- Subscale: pleasure*
11. I love to listen to sensuous music and feel sensuous touch.
12. I dislike the smells and tastes involved with sex. (R)
13. I like to be thrilled with how things look during sex.
14. Avoiding the feelings of sexuality suits me just fine. (R)
15. I love the body tingles and thrills involved with sex.
- Subscale: fantasy*
16. Unless I am in a sexual situation, sex is absent from my mind. (R)
17. I have delicious fantasies about sexual encounters.
18. I think about sex all the time; it's too much. (R)
19. It's easy for me to imagine good sex with an attractive partner.
20. I have painful or sadistic fantasies about sex. (R)
- Subscale: receiving*
21. I love to have my body stroked and cuddled by a partner.
22. I like to be touched as little as possible during sex. (R)
23. I love to relax and relish the pleasure my partner gives me.
24. I dislike being stimulated by my partner. (R)
25. I like to receive my partner's sexual attention.
- Subscale: giving*
26. I feel uncomfortable doing things that give pleasure to a partner. (R)
27. One of my delights in sex is the pleasure I give to my partner.
28. I dislike touching my sexual partner. (R)
29. It is very important to me to feel like I am giving sexually.
30. I feel inhibited about touching my partner. (R)
- Subscale: general*
31. I love the sensations I feel when I am in a sexual situation.
32. I feel sex is wrong or dirty. (R)
33. Part of what is good in life is being sexual.
34. The sooner sex is over, the better it is for me. (R)
35. I have high sexual self-esteem.

**Sexual self-schema scale** (Andersen & Cyranowski, 1994)

Instructions: Many of us have different views and perceptions of ourselves in separate areas and contexts of our lives: in academic/school contexts, in social contexts, in work/professional contexts, etc. Right now we would like you to think about the way you see yourself in sexual contexts. This can include your typical thoughts, feelings, and behaviors. Please focus on your OWN perceptions of yourself rather than others' perceptions of you. You will see a series of adjectives. For each word, consider whether or not the term describes the way you typically see yourself in sexual contexts. Choose a number from the scale below to indicate how accurately each adjective describes you in sexual contexts. There are no right or wrong answers. Please be

thoughtful and honest. (If you are unsure what a particular word means, please press the “N” key.)

0	1	2	3	4	5	6
Not at all descriptive of me in sexual contexts						Very descriptive of me in sexual contexts

In sexual contexts, I typically am \_\_\_\_\_.

1. generous
2. *uninhibited*
3. *cautious*
4. helpful
5. *loving*
6. *open-minded*
7. shallow
8. *timid*
9. *frank*
10. clean-cut
11. *stimulating*
12. unpleasant
13. *experienced*
14. short-tempered
15. irresponsible
16. *direct*
17. logical
18. *broad-minded*
19. kind
20. *arousable*
21. practical
22. *self-conscious*
23. dull
24. *straightforward*
25. *casual*
26. disagreeable
27. serious
28. *prudent*
29. humorous
30. sensible
31. *embarrassed*

32. *outspoken*
33. level-headed
34. responsible
35. *romantic*
36. polite
37. *sympathetic*
38. *conservative*
39. *passionate*
40. wise
41. *inexperienced*
42. stingy
43. superficial
44. *warm*
45. *unromantic (R)*
46. good-natured
47. rude
48. *revealing*
49. bossy
50. *feeling*

Note: Non-italicized items are filler items.

### **Personality**

#### **BIS/BAS** (Carver & White, 1994)

Instructions: Each item of this questionnaire is a statement that a person may either agree with or disagree with. For each item, indicate how much you agree or disagree with what the item says. Please respond to all the items; do not leave any blank. Choose only one response to each statement. Please be as accurate and honest as you can be. Respond to each item as if it were the only item. That is, don't worry about being "consistent" in your responses.

Choose from the following four response options:

- 1 = very true for me
- 2 = somewhat true for me
- 3 = somewhat false for me
- 4 = very false for me

1. A person's family is the most important thing in life.
2. Even if something bad is about to happen to me, I rarely experience fear or nervousness.
3. I go out of my way to get things I want.
4. When I'm doing well at something I love to keep at it.
5. I'm always willing to try something new if I think it will be fun.
6. How I dress is important to me.
7. When I get something I want, I feel excited and energized.
8. Criticism or scolding hurts me quite a bit.
9. When I want something I usually go all-out to get it.
10. I will often do things for no other reason than that they might be fun.

11. It's hard for me to find the time to do things such as get a haircut.
12. If I see a chance to get something I want I move on it right away.
13. I feel pretty worried or upset when I think or know somebody is angry at me.
14. When I see an opportunity for something I like I get excited right away.
15. I often act on the spur of the moment.
16. If I think something unpleasant is going to happen I usually get pretty "worked up."
17. I often wonder why people act the way they do.
18. When good things happen to me, it affects me strongly.
19. I feel worried when I think I have done poorly at something important.
20. I crave excitement and new sensations.
21. When I go after something I use a "no holds barred" approach.
22. I have very few fears compared to my friends.
23. It would excite me to win a contest.
24. I worry about making mistakes.

### Extraversion Scale (John & Srivastava, 1999)

Instructions: Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please use the scale provided to indicate the extent to which you agree or disagree with each statement.

1	2	3	4	5
Strongly disagree	Disagree a little	Neither agree nor disagree	Agree a little	Strongly agree

I see Myself as Someone Who...

- \_\_\_\_\_ 1. Is talkative
- \_\_\_\_\_ 2. Is reserved (r)
- \_\_\_\_\_ 3. Is full of energy
- \_\_\_\_\_ 4. Generates a lot of enthusiasm
- \_\_\_\_\_ 5. Tends to be quiet (r)
- \_\_\_\_\_ 6. Has an assertive personality
- \_\_\_\_\_ 7. Is sometimes shy, inhibited (r)
- \_\_\_\_\_ 8. Is outgoing, sociable

### Aspiration Index (Grouzet, et al., 2004)

Instructions: This set of questions asks you about goals you may have for the future. Rate each item by circling how important each goal is to you. Then circle the chances that you will attain the goal. Try to use the entire scale when rating the items. That is, some of your answers will likely be at the lower end of the scale, some will be in the middle, and others will be at the higher end of the scale.

Importance

1	2	3	4	5	6	7	8	9
not at		a little		moderate		very		extremely

all								
-----	--	--	--	--	--	--	--	--

Chances

1	2	3	4	5	6	7	8	9
very low		low		moderate		high		very high

*Safety subscale*

1. I will have few threats to my personal safety.
2. My basic needs for food, shelter and clothing will be met.
3. I will feel safe and secure.
4. I will not have to worry about bad things happening to me.

### **Social Desirability** (Marlow & Crowne, 1961)

Instructions: Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you.

- T F 1. Before I vote, I thoroughly investigate the qualifications of all of the candidates.
- T F 2. I never hesitate to go out of my way to help someone in trouble.
- T F 3. It is sometimes hard for me to go on with my work if I am not encouraged.
- T F 4. I have never intensely disliked anyone.
- T F 5. On occasion, I have had doubts about my ability to succeed in life.
- T F 6. I sometimes feel resentful when I don't get my way.
- T F 7. I am always careful about my manner of dress.
- T F 8. My table manners at home are as good as when I eat out in a restaurant.
- T F 9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
- T F 10. On a few occasions, I have given up doing something because I thought too little of my ability.
- T F 11. I like to gossip at times.
- T F 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- T F 13. No matter who I'm talking to, I'm always a good listener.
- T F 14. I can remember "playing sick" to get out of something.
- T F 15. There have been occasions when I took advantage of someone.
- T F 16. I'm always willing to admit it when I make a mistake.
- T F 17. I always try to practice what I preach.
- T F 18. I don't find it particularly difficult to get along with loudmouthed, obnoxious people.
- T F 19. I sometimes try to get even rather than forgive and forget.
- T F 20. When I don't know something, I don't mind admitting it.
- T F 21. I am always courteous, even to people who are disagreeable.
- T F 22. At times I have really insisted on having things done my own way.
- T F 23. There have been occasions when I felt like smashing things.
- T F 24. I would never think of letting someone else be punished for my wrongdoings.
- T F 25. I never resent being asked to return a favor.
- T F 26. I have never been irked when people express ideas very different from my own.

- T F 27. I never make a long trip without checking the safety of my car.  
 T F 28. There have been times when I was quite jealous of the good fortune of others.  
 T F 29. I have almost never felt the urge to tell someone off.  
 T F 30. I am sometimes irritated by people who ask favors of me.  
 T F 31. I have never felt that I was punished without cause.  
 T F 32. I sometimes think when people have a misfortune, they only got what they deserved.  
 T F 33. I have never deliberately said something that hurt someone's feelings.

### Subjective Conflict

#### Preference for Consistency (Cialdini et al., 1995)

Instructions: Please indicate your agreement with each statement using the scale provided.

1	2	3	4	5	6	7	8	9
Strongly disagree	Disagree	Somewhat disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Somewhat agree	Agree	Strongly agree

- I prefer to be around people whose reactions I can anticipate.
- It is important to me that my actions are consistent with my beliefs
- Even if my attitudes and actions seemed consistent with one another to me, it would bother me if they did not seem consistent in the eyes of others.
- It is important to me that those who know me can predict what I will do.
- I want to be described by others as a stable, predictable person.
- Admirable people are consistent and predictable.
- The appearance of consistency is an important part of the image I present to the world.
- It bothers me when someone I depend upon is unpredictable.
- I don't like to appear as if I am inconsistent.
- I get uncomfortable when I find my behavior contradicts my beliefs.
- An important requirement for any friend of mine is personal consistency.
- I typically prefer to do things the same way.
- I dislike people who are constantly changing their opinions.
- I want my close friends to be predictable.
- It is important to me that others view me as a stable person.
- I make an effort to appear consistent to others.
- I'm uncomfortable holding two beliefs that are inconsistent.
- It doesn't bother me much if my actions are inconsistent. (reverse scored)

#### Felt Ambivalence (adapted from the BEAMS; Cacioppo et al., 1997)

Instructions: For the next series of questions, please try to visualize or imagine how you feel in typical sexual situations involving yourself and a partner. A sexual situation can be any situation involving sexual contact such as heavy kissing to more intimate contact such as oral sex or



sexual intercourse. If you have never been in a sexual situation with a partner, please try to imagine how you might feel. Use the scale provided to indicate the extent to which each of the following words describes your own feelings about yourself in sexual situations. (If you are unsure what a particular word means, please press the “N” key.)

1	2	3	4	5
Very slightly or not at all				Extremely

In sexual situations, I typically feel \_\_\_\_\_.

muddled  
divided  
tense  
contradictory  
jumbled  
conflicted  
torn  
confused  
uncertain  
consistent (r)  
uniform (r)  
harmonious (r)  
certain (r)

### Sexual Attitudes, Behaviors, and Alcohol Use

**Casual Sex Behaviors** (Sociosexual Orientation Inventory; Simpson & Gangestad, 1991)

1. With how many partners have you had sex (sexual intercourse)? If none, please type 0.
2.          With how many partners have you had sex *on one and only one* occasion?

**Casual Sex Attitudes** (Sociosexual Orientation Inventory; Simpson & Gangestad, 1991)

Instructions: Please indicate your agreement with each statement using the scale provided.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

1. I can imagine myself being comfortable and enjoying “casual” sex with different partners.
2. I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him or her.

### Protection Behaviors

Instructions: Please indicate your agreement with each statement using the scale provided.

0	1	2	3
never	sometimes	usually	always

1. I use protection to prevent pregnancy.
2. I use protection to prevent sexually transmitted infections.
3. I *always* use condoms when I have sex with a new partner.

### Alcohol Use (CORE Institute, 1994)

#### Binge Drinking

1. Think back over the last 2 weeks. How many times have you had 5 or more drinks\* in one sitting?

\*A drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.

1	2	3	4	5	6
none	once	twice	3-5 times	6-9 times	10 or more

2. What is the average number of drinks you consume in a week?

Instructions: Please indicate your agreement with each statement using the scale provided.

0	1	2	3
never	sometimes	usually	always

3. Within the past year, how often have you had sexual intercourse while intoxicated?

## Appendix F: Study 4 Persuasive Communications

### Perform Communication

“The best way to feel good about yourself and get people interested in you is to get people to notice how attractive and confident you are. Use your sex appeal!” explains Penn State Sophomore Amanda P. A series of recent studies from around the country are finding evidence to support the idea that many women believe that it’s important for them to look confident and sexy, especially when they go out, to fully enjoy themselves and to make a good impression on others. Seduction is an art that many women are learning the importance of from the media and from peers. Being desirable and seductive makes many women feel good about themselves, and women claim that it can have social and personal benefits.

Researchers speculate that this trend towards looking sexy stems from the media (e.g., TV, magazines, music) and the influence of their peers. Magazines and television promote the idea that the best way for women to really let their confidence shine through is to take pride in their appearance and their body, and to show that they are sexually adventurous. For instance, *Cosmopolitan* (*Cosmo*) magazine has a broad readership base amongst women in their 20s. *Cosmo* is known for its pictures of beautiful and alluring celebrities and articles about how women can put their best foot forward in social situations and in the bedroom. For example, in perusing some recent stories, the writers provide advice to women on “How to Always Have a Sexy Hair Day” and “The Hottest Things You Can Say in Bed.” In popular TV shows, leading female characters have it all...intelligence, confidence, and sex appeal. Both men and women alike also know that in order to maximize relationship and social potential, showing how confident and hot you are can go a long way. It’s pretty clear that women learn from the media and from their peers how important it is for them to flaunt it if they’ve got it, and teach women how to get it if they don’t!

So what does this trend towards looking sexually confident mean for women? Some say that they feel liberated. Sarah T., a sophomore, told us, “It just feels good to know that people see a sexy and confident woman when they look at me. They know that I’m fun and open to trying new things. Historically, women couldn’t always act like that, so it’s great that we can today. It’s definitely liberating.” Women also speak to having a great time when they go out. Jaycee K., a senior, says, “It’s just fun! People are more likely to come up to me to talk and hang out when I look good. I love knowing that I caught someone’s eye; and getting to talk to a cute guy over some drinks that he bought for the two of us is a definite bonus!”

Peers and potential long term relationship partners also have a role to play in this trend. Women know that society is a lot more approving and even supportive of a woman who isn’t afraid to show some sexual confidence and some skin. While many women say that they’re looking for a long-term relationship partner, even if they’re only interested in hookups, guys want a woman who knows her way around the bedroom or at least isn’t afraid to try new things. Nobody wants to be called a prude! Many argue that men who are looking for a long term relationship partner want a woman who is good at keeping the relationship “spicy” and who isn’t afraid to ask him what he likes. “Keeping myself looking hot lets him know that I’m confident, keeps him interested, and keeps our relationship exciting! When he can’t take his eyes off of me, then I definitely know that he’s into me and that makes me feel really good,” says Jessica T., a Penn State senior. All are testimony for how great it can feel for women to look sexy and

confident so that they can reap the social, emotional, physical, and relationship benefits that come with doing so.

Sexiness isn't just for the supermodels and celebrities anymore. Many women believe that showing some confidence and some sex appeal can lead to a variety of psychological and social gains. And the women here at Penn State seem to agree. So this writer says go for it ladies, and don't let anyone tell you anything different!

### **Suppress Communication**

“The best way to feel good about yourself and get people interested in who you are as a person is to be modest and to not take sexual risks. Be safe!” explains Penn State Sophomore Amanda P. A series of recent studies from around the country are finding evidence to support the idea that many women believe that it's important for them to be modest and to keep their sexual feelings in check. This helps to avoid problems down the road and to make a good impression on others. Being careful about expressing their sexuality is something that women are learning from parents, teachers, peers, and the media. Showing some self-control makes many women feel like they're doing what is right, and women claim that it can have social and personal benefits.

Researchers speculate that this trend towards modesty is largely due to the education that women get from parents and teachers, but the media is also involved. Many schools teach that it's important for young women to avoid expressing their sexual feelings and engaging in sexual behaviors. Some people focus on the belief that pre-marital sex can lead to problems, and so it's a lot safer to wait until you're married or at least in a committed relationship. Others focus on the fact that sexual expression can be dangerous and risky. Let's face it, a lot of women worry about unintended pregnancy. Getting a Sexually Transmitted Infection or ending up with an abusive man who might try to coerce or force them into sex are also important concerns. Some types of media also teach that being more reserved is beneficial for women. For instance, in her book “The Good Girl Revolution,” Wendy Shalit speaks to the benefits of female modesty as an important way for women to maintain their dignity, individuality, and self-respect in an environment that does not always promote these virtues. And for some women, it's simply an issue of not wanting to regret their choices after the fact. So they've chosen to hold off on expressing their sexual feelings until they know the time is right for them.

So what does this trend towards sexual modesty mean for women? Some say that they feel liberated. Sarah T., a sophomore, told us, “I take control over how I want to present myself to other people, and I decide what parts of myself I want to share. Some people call me shy and say I dress conservatively, but they don't get it. Taking that control feels liberating to me and makes me stand out as someone people want to get to know.” Women also speak to the importance of staying true to their own values and moral code. Jaycee K., a senior, says, “It's all about knowing how to keep yourself safe and respected. Don't give in to bad judgment and put yourself into a compromising situation! It makes you feel really good about yourself to know you've held onto your morals.”

Peers and potential long term relationship partners also have a role to play in this trend. Many women want to ensure that their peers and relationship partners maintain a high opinion of them. In light of this fact, many women think that it's wise not to be too sexually expressive and

choose to keep their sexual exploits under wraps. Nobody enjoys the “walk of shame!” Other women mention that being virtuous and sexually reserved is important socially and helps to ensure that other people have a good opinion of you. “Being modest really makes my confidence come through because I can just be myself. And people find that attractive,” says Jessica T., a Penn State senior. Many argue that men who are looking for a long term partner will want someone who has self-respect and good judgment. There are the girls they sleep with and the girls they walk down the aisle with! All are testimony for how important it is to be respectable and careful about expressing your sexual feelings so that you can reap the social, emotional, physical, and relationship benefits that come with doing so.

Modesty isn’t the same thing as being shy or uptight. Many women believe that showing some dignity and self-restraint can lead to many personal and social gains. And the women here at Penn State seem to agree. So this writer says respect yourself, keep yourself safe, and don’t let anyone tell you anything different!

### **Neutral Communication**

“The best way to feel good about yourself and meet interesting people is to join campus clubs and organizations. Get involved!” explains Penn State Sophomore Amanda P. A series of recent studies from around the country are finding evidence to support the idea that many women believe it’s important to get involved in order to enhance their University experience, broaden their horizons, and explore their interests and passions beyond the classroom. For many women, knowing that they are sharing their talents with others makes them feel like they are contributing to the campus community. And others argue that putting oneself out there to experience new things and meet new people can have social and personal benefits.

Researchers speculate that several factors may have contributed to growing beliefs that it is important to participate in extracurricular activities. Professors, peers, and family promote the idea that a great way for women to really let their confidence shine through is to find an activity or hobby they take pride in, and to get out there and do it with others. And here at Penn State, events like the Involvement Fair help to inform students of all the possibilities. Penn State women can also learn about campus clubs and organizations from flyers, the PSU website, The Collegian, and peers. Joining a sorority is only one of many options, and if you’re part of a sorority, there are many additional activities to get involved in. For instance, THON has a broad volunteer base among PSU women. THON is known for its yearly contributions to the battle against childhood cancer. There are also dance clubs, sports clubs, and religious clubs that can connect women to peers with similar interests and passions. Being a part of something bigger than oneself can be a big boost of confidence, and many women who join campus groups are respected for their contributions to the campus community.

So what does this trend towards getting involved beyond the classroom mean for women? Some say that they feel liberated. Sarah T., a sophomore, told us, “It just feels good to know that people see me as a confident woman who is active in her community. They know that I’m sociable and open to trying new things, from club sports to volunteer work. Until this year, I didn’t really get involved, so it’s great that I have started to meet new people and follow my interests. It’s definitely liberating.” Women also speak to having a great time when they try something out of their usual academic routine. Jaycee K., a senior, says, “It’s just fun! People are more likely to come up to me to talk and hang out because they know we’re interested in the

same things. I love making new friends. Also, it makes you feel really good about yourself to know that you're involved in something that you can be proud of."

Peers and potential long term relationship partners also have a role to play in this trend. Women know that it is easier to meet new friends and potential relationship partners by spending time with people who share the same interests. What's more, friendships and relationships tend to be successful in the long term when people share goals, interests, and hobbies. Many women say that they have made lifelong friends and met future relationship partners and spouses by getting involved in campus activities. Nobody wants to miss out on the potential for fun and friendships! "Getting myself involved lets others know that I'm adventurous and outgoing, which makes them interested in getting to know me better. When we're having fun doing something that is important to us, it's so easy to get to know people and make friends," says Jessica T., a Penn State senior. All are testimony for how great it is for women to do something they're passionate about and meet people with similar interests so that they can reap the social, emotional, and relationship benefits that come with doing so.

Getting involved is for everyone. Many women believe that showing passion for their interests, interpersonal confidence, and that they are active in their campus community can lead to a variety of psychological and social gains. And the women here at Penn State seem to agree. So this writer says follow your passion and get involved in your campus community!

### Appendix G: Study 4 Measures

Note: Items are presented in the order in which they appeared to participants in the study.

#### Manipulation Check Measures

Instructions: Please indicate your agreement with each statement using the scale provided.

1	2	3	4	5	6	7
Not at all			Moderately			Very Much

1. This article made me think that I should express more of my sex appeal.
2. This article made me think that I should behave modestly.
3. This article made me think that I should show that I'm sexually adventurous.
4. This article made me think that I should get involved in campus clubs and organizations.
5. This article made me think that I should avoid sexual risks.
6. This article made me think that I should express my confidence by looking sexy.
7. This article made me think that I should be careful about expressing my sexual feelings.
8. I found the article persuasive.
9. I personally agree with the arguments made in the article.
10. While reading the article, I thought about the arguments made by the author.
11. The arguments made in the article did NOT influence my opinion about the topic.
12. I found the article convincing.
13. My own perspective is similar to the perspective expressed by the author.
14. I thought that the arguments in the article were weak.
15. I personally do NOT agree with the arguments made in the article.
16. The arguments made in the article influenced the way I think about the topic.
17. I thought that the author had an accurate perspective on the topic.
18. If I had written this article myself, I would feel happy about the arguments I made.
19. While reading the article, I paid attention to the quality of the arguments made by the author.
20. I thought that the arguments in the article were strong.
21. I related to and understood the perspective expressed by the author.

#### Article Titles and Measures

Instructions: Please indicate your opinion about reading each article title using the scale provided.

1	2	3	4	5	6
Not at all positive/negative					Very much positive/negative

“Getting your dream job: Steps you can take now”

“Great recipes for students on a budget”

- “Bored with your workout? Reasons to try cardio pole dancing”
- “Five top hikes in the State College Area”
- “True Love Waits: The benefits of “taking it slow” in relationships”
- “Volunteerism – What you get by giving”
- “Hook-ups: The modern route to relationships?”
- “Fun sports that you may never have heard of”
- “His point of view: Why men really do prefer nice girls”
- “THON- How to get involved”
- “Beyond ‘Just say no’: How to cool things down if you’re just not ready”
- “Five things every 20 year should do to attain financial security”
- “Men let you in on the surprising things that make them lust over you”
- “Surprising sources of college scholarships”



## Curriculum Vitae

Cinnamon L. Danube

### Education

Ph.D., Social Psychology, 2011, The Pennsylvania State University, University Park, PA  
Thesis Title: Assessing Women's Endorsement of Conflicting Messages About Sexuality: Development of the Sexual Ambivalence Questionnaire (SAQ)

M.S., Psychology with a Women's Studies minor, 2008, The Pennsylvania State University, University Park, PA

B.A., Psychology and Mathematics, 2002, St. Norbert College, De Pere, WI

### Publications

Bjork, J. M., Smith, A. R., Danube, C. L., Hommer, D. W. (2007). Developmental differences in posterior mesofrontal cortex recruitment by risky rewards. *Journal of Neuroscience*, 27, 4839-4849.

Bjork, J. M., Hommer, D. W., Grant S. J., Danube, C. (2004). Impulsivity in abstinent alcohol-dependent patients: Relation to control subjects and type 1-/type 2-like traits. *Alcohol*, 34, 133-150.

### Selected Posters and Presentations

Danube, C. L., & Vescio, T. K. (2011, May). *Masculinity Endorsement and Sexism Predict Casual Sex Attitudes, Binge Drinking, and Hookups*. Poster presented at the annual meeting of the Association for Psychological Science, Washington, D.C.

Danube, C. L., & Gasper, K. (2011, January). *Assessing Women's Endorsement of Conflicting Messages About Sexuality: Development of the Sexual Ambivalence Questionnaire (SAQ)*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, San Antonio, TX. Poster also presented at the regional meeting (March) of the Society for the Scientific Study of Sexuality, Philadelphia, PA.

Danube, C. L., & Gasper, K. (2010, January). *Neutral Affect: Manipulation, Measurement, and Personality Correlates*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Las Vegas, NV.

Danube, C. L., Di Leone, B. A. L., Vescio, T. K. (2009, February). *I Kissed a Girl, but I'm Straight: Sexual Fluidity or Experiences of External Pressure to Engage in Same-Sex Sexual Contact?* Poster presented at the annual meeting of the Society for Personality and Social Psychology, Tampa Bay, FL.

### Teaching and Research Experience

2005 – Present: Research Assistant and Lab Manager to Dr. Karen Gasper (NSF grant: Got Neutrality? Defining, Measuring, and Investigating what Role Neutral Affective States Play in Judgment, Motivation, and Regulation; Fall 2010-Spring 2011)

2005-2010: Instructor, The Psychology of Gender, Introduction to the Psychology of Gender, Research Methods in Psychology; Teaching Assistant, Research Methods in Psychology, Introduction to Social Psychology, Introduction to Psychology

2002- 2005: Post-Baccalaureate Intramural Research Training Associate, NIH, Laboratory of Clinical and Translational Studies for the National Institute on Alcohol Abuse and Alcoholism (Fall 2002-Spring 2005); Data Collection Specialist, ATTIC Correctional Services, Inc. (Summer 2002)

2000- 2002: Student Life Assessment Intern, St. Norbert College; Teaching Assistant, St. Norbert College Mathematics Department