

# Reading between the Lines: Cultural Sexual Scripts and Collegiate Sexual Behaviors

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READING BETWEEN THE LINES: CULTURAL SEXUAL SCRIPTS AND  
COLLEGIATE SEXUAL BEHAVIORS

by:

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ABSTRACT  
READING BETWEEN THE LINES: CULTURAL SEXUAL SCRIPTS AND  
COLLEGIATE SEXUAL BEHAVIORS

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Marquette University, 2015

Cultural sexual scripts provide individuals with a general understanding of how to respond in sexual situations given their environment. College students navigate the college culture keeping various elements of these sexual scripts in mind. Utilizing 1,007 undergraduates, the researcher investigated the current relevance of traditional sexual scripts and the relationships between various levels of cultural sexual scripts (i.e., the collective versus individual perceptions of them) and their relation to reported sexual engagement. Researchers also explored factors that predict these relationships.

Results suggested current sexual scripts still largely reflect traditional ones, depending on the sexual behavior being assessed. Individual perceptions of current sexual scripts more closely aligned with actual behavior than collective scripts. Lastly, participant age, sex, and agreeableness generally predicted relationships between levels of cultural sexual scripts as well as between scripts and actual behavior.

These findings suggest programming promoting sexual health on campuses should more specifically target one's personal perceptions of cultural expectations rather than merely attempting to shift cultural expectations. Future research should continue to explore cultural sexual scripts as they relate to sexual engagement as well as additional levels of sexual scripts (e.g., interpersonal) to better understand how students' sex lives interact with the current college culture.

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## Introduction

Children are blasted with messages about sex and sexuality from a young age – which toys to play with, which sports to play, the color of their baby blanket – and onward through adolescence through advertisements, TV programming, and magazine covers. Concurrently, they are inundated with additional messages about sex from health class, family members, religious organizations, and even medical professionals. Peer groups and friends weigh in on the subject, often dictating who should make the first move on a date and who should ask whom to the dance. By the time emerging adults reach college, they have an amalgamation of potentially competing messages about sex and sexuality.

The college environment provides a unique opportunity for young adults to explore these messages and concepts with far less direct adult supervision than ever before. They have greater access to a new and larger pool of potential partners within a culture that is likely accepting of sexual activity. However, even this new world has its rules and conventions and even more competing messages for students to sift through.

Here, emerging adults, largely on their own for the first time, wade into the swirling currents of mixed expectations, knowledge, and experiences with potentially serious consequences. Exploring one's sexuality in college can reveal a world of pleasure, deep, meaningful relationships, and greater self-understanding. However, the risks are numerous, including sexual violence, sexually transmitted infections (STIs), unplanned pregnancies, and complex feelings of guilt and shame.

When viewed as an aggregate population, these individual risks become complex public health issues. Individuals aged 15 to 24, which includes the college student

population, make up almost half of the 20 million newly reported cases of sexually transmitted diseases and infections each year (Centers for Disease Control and Prevention, 2014), with college students most commonly reporting human papillomavirus (HPV), chlamydia, and genital herpes (Lindley, Barnett, Brandt, Hardin, & Burcin, 2008).

In terms of sexual assault, compared to the general female population, college women are at an increased risk (Jozkowski & Peterson, 2013). The U.S. Centers for Disease Control and Prevention (2012) has found that nearly one in five undergraduate women report being the victim of an attempted or completed sexual assault since entering college. Unfortunately, despite growing awareness of this problem in the public sector, the rate of sexual assault among college students has not decreased in 50 years (Jozkowski & Peterson, 2013). This information, combined with the United States Census Bureau's (2011) estimation of nearly 20 million college students in the fall of 2011, suggest that these students' sexual decision making represents a large-scale public health concern.

Students often struggle to navigate the complex sexual milieu of the collegiate arena. Concurrently, parents, educators, clinicians, researchers, and public health officials likewise struggle to understand students' sexual decision making processes in an attempt to keep them safe. A better understanding of these processes would allow for the development of more targeted intervention and prevention programming. It would also allow educators to focus on specific aspects of the sexual decision making process in hopes of promoting healthy sexual relations among students. Gaining insight into what happens behind closed dorm room doors and what underlies these actions may ultimately

promote more positive outcomes for the college student community as a whole, while managing the public health concerns associated with them.

Unfortunately for those interested in understanding the sexual lives of college students, the motivations and processes that drive sexual behavior are complex and diverse. Especially in collegiate samples, they are also heavily influenced by the specific cultural worlds in which the individuals live. As sexual behavior researchers Simon and Gagnon put it, “there are many more *reasons* [emphasis added] for behaving sexually than there are *ways* [emphasis added] of behaving sexually” (Simon & Gagnon, 1984, p. 59).

The current research investigating the sexual decision making process reveals complex interactions between individuals’ perceptions of romantic, peer, and familial relationships, intimacy, cognitive abilities, problem-solving strategies, and risk evaluations, as well as situational expectations and factors (Bartoli & Clark, 2006; Chambers & Rew, 2003; Davis et al., 2010; Fantasia, 2008; Farris, Akers, Downs, & Forbes, 2013; Mehrota, Zimmerman, Noar, & Dumenci, 2013; Ragsdale et al., 2014). On a broader level, additional factors including age, gender, relationship status, parent factors, past sexual experience, educational goals, and even type of hometown contribute to sexual engagement in general (Chi, Yu, & Winter, 2012; VanOss Marin et al., 2006; Walcott, Chenneville, & Tarquini, 2011; Yip et al., 2013).

Researchers have applied various theories of decision making, including social cognitive, Reasoned Action, Planned Behavior, and Problem Behavior, to the sexual decision making of adolescents and young adults (Mehrota, et al., 2013). Chambers and Rew (2003) suggested an information processing approach best captures these processes

in adolescents. More specifically, authors proposed the application of Janis and Mann's (1977) Conflict Theory of decision making due to its emphasis on individuals' ambivalence and conflicting choices (Chambers & Rew, 2003). However, this model largely ignores the greater social context associated with sexual decision making, especially of adolescents and emerging adults.

Social cognitive approaches to sexual decision making more directly incorporate the importance of one's social context in such decisions. Ragsdale and colleagues (2014) suggested expectancies as important aspects of adolescent sexual decision making. More specifically, expectancies represent "an individual's beliefs about the likelihood of... personal consequences of engaging in a specific behavior," (Olson, Roese, & Zanna, 1996 as cited in Ragsdale et al., 2014, p. 551) which are highly associated with the probability of performing that behavior (Ragsdale et al., 2014). These expectancies were highly influenced by peers and media exposure as they apply to adolescent sexual decision making (Ragsdale et al., 2014).

Sexual decision making researchers acknowledge that models of these processes often do not incorporate contextual factors into the decision making process (Norris, Masters, & Zawacki, 2004). In fact, many of these researchers emphasize a need for a more "comprehensive model of health behavior" that includes a greater multitude of factors, including cultural considerations (Mehrota et al., 2013, p. 117). Mehrota and colleagues (2013) proposed a Multiple Domain Model that includes environmental, cultural, structural, personality, gender role, psychosocial, contextual, and preparatory factors together. This model recognizes the importance of the social world in which sexual engagement decisions are made. However, many of these models have not fully

explored the various complexities and aspects of how one's culture may influence sexual decision making.

### **Sexual Script Theory**

The field of psychology has a long, complicated history regarding the study of sex and sexuality. Early considerations focused on the "sins of the flesh" and were strongly rooted in religious ideology (Parker, 2009). By the 1970s, explorations of sex focused on biology and emphasized universal human nature and biological forces (Parker, 2009). The idea that sexuality was closely associated with one's culture did not emerge until the late 1970s and early 1980s (Parker, 2009). At that point, researchers began to shift their attention away from the specific behavior of the individual to the context in which the behavior occurs. This is inherently linked to one's role in society (Parker, 2009). Despite these developments in the field of sexuality research, explorations of collegiate sexual behavior still often focus on individual contributions and neglect the role of the broader cultural influences at play.

Leading the shift toward a cultural understanding of sexuality, Simon and Gagnon formulated a way to conceptualize human sexuality that included both socio-historical considerations as well as one's personal interactions with them (Simon & Gagnon, 1984). As a result, they borrowed the concept of *social scripts*, "a metaphor for conceptualizing the production of behavior within social life" (p. 53) from social psychology, and applied this concept specifically to sexual interactions.

From this perspective, culturally available messages about sexuality largely define one's concept of it (Masters, Casey, Wells, & Morrison, 2013). The resulting sexual scripts organize the available knowledge about sex and provide "meaning and direction"

for sexual behavior across a variety of contexts within a specific culture (Littleton, Axsom, & Yoder, 2006; Wiederman, 2005, p. 496). Sexual scripts lay the groundwork for the role an individual should play in a sexual interaction.

### **Cultural and Interpersonal Sexual Scripts and Behavior**

Such scripts exist within the realm of sexuality on a broader cultural level (i.e., cultural sexual scripts) and on an individual level as interpersonal sexual scripts. Cultural sexual scripts help to normalize sexual behaviors and justify engagement in them. In this way, cultural scripts seemingly grant permission for individuals to act sexually without fear of negative cultural consequences, help to reduce anxiety, and guide behavior especially in novel sexual situations (Frith & Kitzinger, 2001; Wiederman, 2005). Reliance on cultural scripts can, however, also estrange those who do not or choose to not align with the cultural norms. Such reliance may also lead partners to avoid meaningful communication about sexual acts that may actually lead to a more positive sexual experience.

Individual preferences and expectations are better captured via interpersonal sexual scripts. Interpersonal sexual scripts serve a similar function to cultural sexual scripts but on a more specific level. Interpersonal scripts represent an individual's expectation of how a sexual interaction with him or herself and another person, or persons, should unfold. Interpersonal sexual scripts inherently and necessarily deviate from broader, cultural sexual scripts as individuals uniquely rectify their personal attitudes and values within the wider cultural expectations (McCabe, Tanner, & Heiman, 2010; Simon & Gagnon, 1984). Cultural scripts provide broad suggestions about how a

member of that culture should act in a sexual situation, whereas individual scripts more directly represent how that particular individual will likely act in that situation.

The process of translating cultural scripts into interpersonal scripts allows individuals to engage in sexual behavior on their own terms (Masters et al., 2013; McCabe et al., 2010; Simon & Gagnon, 1984). These scripts and this translation process invariably play a large role in sexual decision making, especially when cultural pressures are particularly salient, as they are in college. Just as individuals are unique, so are the ways in which they translate and transform sexual scripts into sexual behavior (Masters et al., 2013).

Different individuals select different aspects of sexual scripts to adhere to or deviate from, and this selection process typically depends on the specific context of the sexual interaction and proclivities of the individuals (Masters et al., 2013). To investigate this process, Masters and colleagues (2013) conducted semi-structured interviews about sexual relations with 44 sexually active women and men. Analyses revealed three predominant methods of transforming cultural scripts into individual ones (Masters et al., 2013). Some participants conformed to the dominant cultural script; and therefore, their individual scripts matched the cultural one. Others found exceptions in the cultural script that allowed them to work around it without necessarily expressing a desire to alter it. A third group of participants transformed the cultural script into a completely new individual script that retained little, if any, remnant of the dominant cultural ideas. Understanding more about the mechanisms underlying an individual's translation process would provide great insight into the sexual decision-making and sexual health of these individuals.

## Traditional Sexual Scripts

Since the introduction of the concept of sexual scripts in 1973 (Gagnon & Simon, 1973), cultural sexual scripts have largely been synonymous with traditional sexual scripts. These traditional sexual scripts are inherently linked to traditional gender expectations and ideas and are rooted in an individual's early treatment and discussion of sex and genitalia (Masters et al., 2013; Wiederman, 2005). This results in very different traditional sexual scripts for men and women.

The overarching script for men suggests they must be independent, assertive pursuers of sexual interaction (Masters et al., 2013; Wiederman, 2005). This script centers on the body and on seeking and obtaining pleasure from it (Wiederman, 2005). In contrast, female traditional sexual scripts emphasize that women must demonstrate sexual restraint and control as sexual relations risk pregnancy and damage to one's social standing (i.e., reputation; Wiederman, 2005). Women's scripts center on relationships and pleasing one's partner in an attempt to preserve and maintain the relationship; this often includes being or appearing pleased by one's partner (Masters et al., 2013; Wiederman, 2005).

However, a limitation of these discussions of traditional sexual scripts lies in the potentially antiquated nature of these traditional conceptualizations (Dworkin & O'Sullivan, 2005). The constructs and ideas associated with traditional sexual scripts remain unchanged since original discussions in 1973 and are rooted in traditional gender roles that were established decades earlier. In contrast, the past 40 years have seen significant cultural shifts in the intersection between gender and sexuality, especially with the explosion of social media and technology.

Media programming that follows non-traditional females engaging in non-traditional sexual behavior, like *Sex in the City* or *Jersey Shore*, has contributed to shifting gender gaps, dating scripts, and cultural expectations of the sexes in the bedroom (Markle, 2008). More recent examinations of sexual scripts reflect these changes. Semi-structured interviews with an ethnically diverse population of inner-city adult males revealed that egalitarian themes in sexual scripts are becoming more normative as are a combination of traditional and non-traditional elements (Seal & Ehrhardt, 2003). Similar work with a female sample revealed that women's sexual narratives also include non-traditional sexual scripts (Ortiz-Torres, Williams, & Ehrhardt, 2003). Therefore, examining only the role of traditional cultural sexual scripts reduces the variability the past 40 years of cultural change may have contributed to current sexual scripts.

### **Current Sexual Scripts**

More recent sexual script research has focused on niche aspects of sexuality. Specific heterosexual scripts (Kim et al., 2007), premarital sex scripts (Farrer, Suo, Tsuchlya, & Sun, 2012), dating scripts (Bartoli & Clark, 2006), "friends with benefits" and "hook up" scripts (Epstein, Calzo, Smiler, & Ward, 2009; Karlsen & Traeen, 2013; Littleton, Tabernik, Canales, & Backstrom, 2009) have emerged. Instead of focusing on overarching behaviors associated with sexuality, researchers are investigating the scripts associated with precise aspects of sexual engagement from condom scripts (Reich & Rubin, 2007) to masochistic scripts (Baumeister, 1988). Researchers are even exploring the impact of recent cultural phenomena such as hip-hop scripts (Ross & Coleman, 2011).

Sexual script research also reflects public concerns surrounding the prevalence of rape and sexual assault among today's young adults. Emerging research focuses on sexual scripts that capture the dangers of sexual engagement (Clark & Carroll, 2008; French, 2013; Jozkowski & Peterson, 2013; Krahe, Bieneck, & Scheinberger-Olwig, 2007; Littleton et al., 2006; Littleton et al., 2009; Parsons et al., 2004; Ryan, 1988). Themes in this work emphasize the negative implications of the dominant hook-up culture and the prevalence of sexual violence in young adult populations, including those on college campuses. Stereotypical rape scripts involve a "highly violent act that occurs between strangers" but also overlap with seduction scripts that involve a casual relationship between partners and a sometimes confusing mix of consensual sexual activity and persuasion (Littleton et al., 2006, p. 558). Inherently, many discussions of these scripts, and current cultural sexual scripts in general, focus on sexual risk and violence while neglecting the positive, healthy sexual outcomes also available.

This sex-as-risk perspective has been linked to ambivalence regarding engaging in sexual activity, which often leaves individuals unprepared for their first sexual encounters (Pinquart, 2010). This lack of preparation likely increases the potential for negative sexual outcomes including insufficient protection from STIs, persuasion and coercion, and feelings of guilt and shame (Pinquart, 2010). Instead, exploring updated, cultural sexual scripts embedded within a sex-neutral perspective would allow researchers to access the cultural changes that have occurred since the introduction of traditional sexual scripts without contributing to the existing sex-as-risk perspective.

Additionally, re-evaluating more general sexual scripts surrounding sexual engagement, instead of specific niche areas or phenomena, would allow researchers to

evaluate how cultural shifts surrounding sex and sexuality have permeated the college culture and directly influenced students' sexual scripts and behavior. Compared to traditional sexual scripts, these current scripts, which contain the current perceptions of others' behaviors, are likely more representative of cultural change and therefore are likely more representative of actual sexual behavior as well.

The overarching sexual script for a particular culture, college students for example, is the amalgamation of the individual perceptions of all of the students in that culture. Thus, the amalgamated cultural sexual script for college students represents a collective sexual script (CSS). This collective script is therefore made up of all of the students' individual perceptions of their peers' behavior, or their individual perceptions of the current sexual script (IPCSS). See Table 1 for definitions of constructs. Just as current sexual scripts likely more directly reflect current sexual behavior compared to traditional sexual scripts, individual perceptions of the current sexual scripts (IPCSS) likely more directly reflect individual sexual behavior than collective sexual scripts (CSS).

### **Sexual Scripts and Behavior**

A limitation of much of the existing sexual script literature is its reliance on non-empirical methods. Despite discussions spanning academic fields from social work to sociology and from psychology to public health, many of the resulting conversations regarding the role of sexual scripts in sexual interactions synthesize or re-conceptualize existing theoretical perspectives (Frith & Kitzinger, 2001; Parker, 2009; Simon & Gagnon, 1984; Wiederman, 2005). Additionally, while empirical research is conducted in this area, very little, if any, investigates traditional, cultural, or interpersonal sexual

Table 1

*Definitions and Operationalization of Constructs*

Construct	Collective Sexual Script (CSS)	Individual Perceptions of Collective Sexual Script (IPCSS)	Individual Behavior
Definition	Grand mean of participants' perception of the "average" male and female student's sexual engagement	Each participant's individual perception of the "average" male and female student's sexual engagement	Each participant's (either male OR female) reported sexual engagement
Operationalization	Aggregate Specific (5)	Aggregate Specific (5)	Aggregate Specific (5)

*Note:* The 15 behaviors included in aggregate scripts were: heterosexual intercourse, masturbation, giving and receiving manual genital stimulation, giving and receiving oral sex, "one night stand," "friend with benefits," talking "dirty" to a partner, sadomasochistic sex (i.e., "focus on power dynamics and control, surrounding issues involving pain, humiliation, dominance, and submissiveness"), and watching pornography (i.e. alone or with non-partners), and sending and receiving sext messages to significant and non-significant others.

The 5 specific scripts included: lifetime engagement in heterosexual intercourse, number of heterosexual intercourse partners, masturbation, receiving oral sex and sexting a significant other.

scripts in terms of engagement in sexual behavior. Instead it investigates sexual scripts in purely cognitive terms. Thus, this research depends largely on participant report and interpretation of these cognitive constructs and processes.

For example, in this work, participants rank their level of endorsement of statements that align with or deviate from traditional sexual scripts (Krahe, et, 2007; Pinquart, 2010), or researchers code participant discussions or media portrayals of sexual encounters for themes relating to sexual scripts (Clark & Carrol, 2008; Dworkin & O’Sullivan, 2005; Markle, 2008; Masters et al., 2013; Ortiz-Torres et al., 2003; Parsons et al., 2004; Seal & Ehrhardt, 2003). This research also commonly uses various cultural sexual scripts to prime non-sexual behavior. For example, Littleton and colleagues (2006) primed 210 undergraduates with words from either rape or seduction scripts and asked them to evaluate a neutral dating scenario across a series of Likert scales. Hundhammer and Mussweiler (2012), stretching behavioral outcome measures a bit further, primed 94 college students with words and ideas surrounding sexual engagement and measured how long it took them to interrupt researchers in an “unrelated” activity or how many rice crackers they consumed in a “taste test.” Ultimately, the existing research in the area relies on non-sexual behavior manifestations, inference, or participant insight when trying to conceptualize the translation of scripts into sexual behavior.

Thus, direct application of sexual script theory to understand the sexual decision making in emerging adulthood has been difficult. Comparing cultural sexual scripts directly to general sexual behaviors would provide meaningful information regarding the role of sexual scripts in the sexual decision making of college students as it applies directly to those behaviors. This information could be readily applied outside of the field

to develop education, prevention, and intervention programming about sexual health in this population. Due to the flexible nature of sexual scripts, researchers have identified them as a potential intervention point to attempt to adjust sexual behaviors (Ortiz-Torres et al., 2003). Breaking down cultural sexual scripts into their components – traditional, collective, and individual perceptions– would provide even greater insight into the role these scripts play in the sexual behavior of college students.

With implications for both individual well-being and public health, the current literature identifies the sexual decision making of college students as an important domain of research (Chi et al., 2012; Davis et al., 2010; VanOss Marin et al., 2006; Yip et al., 2013). Unfortunately, research has identified a complex amalgamation of factors that influence sexual decision-making and activity, including the collegiate culture (Bartoli & Clark, 2006; Chi, et al., 2012; Davis et al., 2010; Fantasia, 2008; Farris et al., 2013; Walcott et al., 2011; VanOss Marin et al., 2006; Yip et al., 2013). These cultural pressures, especially surrounding sexual activity, are particularly salient in the college environment.

Existing models of sexual decision making acknowledge the importance of such cultural pressures but have yet to fully investigate them. Sexual script theory, originally introduced by Simon and Gagnon in the 1970s, conceptualizes human sexuality in a way that directly incorporates these cultural influences. Cultural sexual scripts, unspoken representations of the expectations of sexual activity within a specific culture, directly capture a major contributor to the sexual decision making of college students. These cultural scripts exist on a broad collective level and are made up of the individual perceptions that members of the community have of their peers' behaviors. Additionally,

cultural scripts have often been synonymous with traditional sexual scripts, which are rooted in traditional gender roles.

### **Study Goals**

The purpose of this study was to directly examine the cultural sexual scripts that college students interact with on a regular basis. This examination occurred on several levels. First the researcher compared traditional sexual scripts to current cultural scripts to identify overlap between the two. The researcher then evaluated the relationship between the collective sexual script and the individual perceptions of that collective script. Lastly, the researcher investigated the relationship between both collective and individual perceptions of current sexual scripts to actual collegiate sexual behavior to better understand the factors that influence the translation of these scripted expectations into actual behavior. See Table 1 for definitions of constructs.

**Traditional sexual scripts versus current sexual scripts.** The current literature suggests current cultural sexual scripts deviate from the traditional sexual scripts of the past (Dworkin & O’Sullivan, 2005; Ortiz-Torres et al., 2003; Seal & Ehrhardt, 2003). These scripts, however, are highly culturally dependent, and their alignment with or deviation from one another has not been explored specifically within a college setting. To investigate the relationship between these scripts, the researcher compared the sex differences predicted by traditional sexual scripts to the current scripts of college students. Current scripts were operationalized as the current perceptions students have of their peers’ behavior. Due to recent demonstrations of shifting cultural scripts, the researcher predicted:

- 1a. Contrary to traditional sexual scripts that would suggest males more frequently engage in sexual activity than females (Masters et al., 2013; Wiederman, 2005), the current sexual scripts regarding **overall sexual engagement** (i.e., the summation of engagement across 15 common sexual behaviors) **will not be significantly different for males and females.**

However, because this same research indicates some of the major tenets of traditional sexual scripts are still present in current scripts, the researcher hypothesized that current cultural scripts regarding engagement in more specific sexual behaviors (e.g., intercourse, number of sexual partners, etc.) would reflect the sex differences suggested by traditional sexual scripts:

- 1b. In accordance with traditional sexual scripts suggesting males more actively seek pleasure whereas women demonstrate more control and restraint (Masters et al., 2013; Weiderman, 2005), the researcher hypothesized that current sexual scripts will imply that **men have more sexual intercourse than women.**
- 1c. The researcher predicted that these tenants of traditional sexual scripts will also be reflected in expectations surrounding one's number of sexual partners. Thus the researcher predicted that current sexual scripts will imply that **men have more sexual partners than women.**
- 1d. Additionally, in accordance with traditional sexual scripts suggesting males more independently seek out sexual pleasure than women (Masters et al., 2013; Weiderman, 2005), the researcher hypothesized that current sexual scripts will imply that **men masturbate more than women.**

1e. Lastly, in accordance with the traditional script tenant that women are more focused on pleasing their partner in an attempt to preserve the relationship than men (Masters et al., 2013; Weideman, 2005), the researcher hypothesized that **men receive more oral sex than women.**

Additionally, shifts in the current culture, specifically with relation to technology, are likely to affect sexual scripts as well. Thus:

1f. Research has established that females are typically more expressive in relationships than their male counterparts and are more likely to discuss sexual topics with them (Holmstrom, 2009; Kapungu et al., 2010; Widman, Choukas-Bradley, Helms, Golin, & Prinstein, 2014). This research, paired with findings that suggest more recent sexual scripts highlight the importance of communication in sexual relationships for women (Ortiz-Torres et al., 2003) and include women as subtle initiators of sexual encounters (Seal & Ehrhardt, 2003) led the researcher to hypothesize that **women will sext** (i.e., sending a sexually explicit text or picture message) **significant others more than men.**

**Collective sexual scripts (CSS) versus individual perceptions of cultural sexual scripts (IPCSS).** The current research comparing sexual scripts to one another emphasizes cultural versus interpersonal sexual scripts (Krahe et al., 2007; Masters et al., 2013). A more in-depth exploration of cultural scripts and more specifically of the components that make up these overarching scripts would allow researchers to explore the individual factors that influence this relationship. See Table 1 for definitions and operationalization of scripts.

2. Based on the complexity of factors that influence sexual decision-making and activity, the researcher conducted **exploratory analyses to indicate which participant factors** (i.e., demographic, dispositional, and sex-related; see Table 2 for specific included factors) **are significantly associated with the difference between collective sexual scripts (CSS) and one's individual perceptions of the cultural scripts (IPCSS).**
  - a. The researcher predicted that these factors would be different depending on the specific behavior being examined. For example, the factors that significantly influence the IPCSS-CSS difference for overall sexual engagement would be different from those that significantly influence the relationship for masturbation.

**Cultural sexual scripts and behavior.** The existing literature on sexual scripts suggests that interpersonal sexual scripts necessarily deviate from broader cultural scripts (McCabe et al., 2010; Simon & Gagnon, 1984). Additionally, as individuals uniquely apply their personal attitudes and values to translate cultural sexual scripts into interpersonal ones and interpersonal scripts into sexual behavior, these interpersonal scripts more likely directly align with an individual's actual sexual behavior than the cultural sexual scripts (Masters et al., 2013; McCabe et al., 2010). See Table 1 for definitions and operationalization of scripts and behaviors.

3. Thus, the researcher predicted that **IPCSS would be significantly more congruent with participants' actual behavior than the CSS.**

Identifying which factors may influence the relationship between cultural scripts and sexual behavior may lead to better targeted prevention and intervention

programming. Additionally, understanding how these factors influence IPCSS and CSS differently may indicate on which aspect of cultural scripts such programming should target.

4. To determine which factors contribute to the relationship between IPCSS and reported sexual behavior, the researcher conducted **exploratory analyses to indicate which factors** (i.e., demographic, disposition, and sex-related; see Table 2 for specific factors included) **are significantly associated with the difference between IPCSS and actual behavior.**
  - a. Again, the researcher predicted that the relative significance of the factors would change depending on the specific behavior examined.
5. To determine which factors contribute to the relationship between CSS and reported sexual behavior, the researcher conducted **exploratory analyses to indicate which factors are significantly associated with the difference between CSS and actual behavior.**
  - a. Again, the researcher expected that the relative significance of the factors would vary with the specific behavior.

Table 2

*Descriptive Statistics for Participant Factors Included in Hypotheses 2, 4, and 5*

Category	Factor	Min.	Max.	M	SD	
Demographic	Age	18	25	20.44	1.69	
	Sex	74.7% Female; 25.3% Male				
	Relationship Status	50.3% Single; 49.7% Committed				
Individual Disposition	Personality Traits					
	Extroversion	1	7	4.63	1.44	
	Agreeableness	1	7	5.03	1.13	
	Conscientiousness	1	7	5.54	1.16	
	Emotional Stability	1	7	4.73	1.26	
	Openness	1	7	5.39	1.11	
	Faith Salience	1	7	4.27	1.60	
Sex-Related	Gender Nonconformity	1	7	2.99	1.35	
	Parental Attitudes/Comfort	1	5	2.71	0.83	
	Sexual Knowledge	1	10	4.78	1.88	

*Note.* Greater values indicate greater age, endorsement of personality dimensions, faith salience, gender nonconformity, greater parental comfort/more positive attitudes, and greater sexual knowledge. For sex and relationship status, categorical percentages are reported.

## Method

### Participants

For the current investigation, the researcher utilized a large database gathered as part of a study examining college students' sexual behaviors, attitudes, knowledge, and identity. Participants consisted of an initial sample of 1,342 of college students from two Midwestern universities in the same metropolitan area. Participants were largely female (74.7%), European American (77.4%), and heterosexual (88.4%). Age of participants ranged from 18 to 25 years (mean = 20.44 years, standard deviation = 1.69 years). Regarding relationship status, 50.3% of participants indicated they were single, whereas 49.7% of participants indicated they were in a committed relationship.

While no students were excluded from completing the initial survey based on race, gender, or sexual minority status, due to the gender binary inherent in sexual script theory, only students who self-identified as female or male were included in analyses. Additionally, due to the heterosexual assumptions of sexual script theory, only students who also self-identified as heterosexual were included in analyses. A total of 335 cases were excluded.

**Recruitment.** Appropriate approval from each university's Institutional Review Board was obtained before data collection began. Recruitment consisted of individual class announcements across both campuses, primarily in psychology courses. Upon completion of the study, students typically received research credit for class. Students who chose not to participate were able to seek the same course credit through alternate

assignments. Additionally, some students voluntarily completed the measures outside of class without compensation.

The first university sampled was a medium-sized private institution with a Catholic affiliation. Sampling began in April of 2012 and lasted approximately one month; a total of 494 responses were collected. A preliminary screen for completeness (e.g., some participants merely opened the survey and consented but did not complete any of the materials) indicated 395 appropriately completed responses were collected. The second university sampled was a large, public institution. Sampling at this university began in January of 2013 and lasted approximately 5 months. A total of 848 responses were collected; a preliminary screen for completeness indicated 745 of these were appropriately completed. Thus, a total of 1,140 appropriately completed responses were collected. Of these, 1,007 indicated they were male or female and heterosexual and were subjected to the more thorough data screening procedures outlined under the “Data Analysis Plan.” Preliminary screens indicated samples from each school did not meaningfully differ regarding key variables being explored and were thus combined for all analyses.

### **Procedure**

After giving informed consent (Appendix A), participants completed study materials online through the survey provider SurveyMonkey. Participants could start and stop as they desired; the survey did not require participants to complete it in one sitting. Additionally, participants were not forced to answer every question and could choose not to answer if a question did not pertain to them or made them feel uncomfortable in any way.

Survey materials asked students to provide information regarding their demographic and background information (Appendix B) and more thoroughly about their sexual behaviors, attitudes, knowledge, and identity. Measures included previously established and validated scales to assess a variety of constructs as well as specific information regarding their sexual behavior and estimations of others' sexual behavior. Total survey completion time typically varied between one and two-and-a-half hours, though partially completed surveys were included in analyses.

## Materials

**Report of sexual behavior.** In an attempt to survey sexual behavior in the collegiate sample, researchers asked the same series of 9 questions (Appendix C) in reference to 22 different sexual behaviors. These sexual behaviors were initially selected from suggestions from current undergraduate students from a variety of backgrounds. Of the 22 behaviors included on the survey, the researcher selected 15 based on quality and completeness of participants report as well as relevance to the research questions. These behaviors included intercourse, masturbation, giving and receiving manual genital stimulation, giving and receiving oral sex, “one night stand,” “friend with benefits,” talking “dirty” to a partner, sadomasochistic sex (i.e., “focus is on power dynamics and control, surrounding issues involving pain, humiliation, dominance, and submissiveness”), watching pornography (i.e., alone or with non-partners), and sending and receiving sext messages to significant and non-significant others. With the exception of sadomasochistic sex and watching pornography, terms were purposefully left undefined to best align with the general assumptions of college students.

Of the series of 9 questions, the researcher utilized six, including number of partners in one's lifetime; number of times in one's lifetime; number of partners of the average female (male) at your school; number of times the "average" female (male) at your school has done this. Responses to these questions were purposefully left open ended to encourage a full spectrum of responding without introducing an artificial ceiling. Thus, students were unrestricted in the values they could provide in response.

**Collective Sexual Scripts (CSS).** To evaluate the collective sexual script regarding overall sexual engagement, the researcher calculated the mean perception of the "average" male and female student engagement (i.e., number of times in one's lifetime) for each of the 15 selected behaviors (i.e., intercourse, masturbation, giving and receiving manual genital stimulation, giving and receiving oral sex, "one night stand," "friend with benefits," talking "dirty", sadomasochistic sex, and watching pornography, and sending and receiving sext messages to significant and non-significant others). The resulting 15 means were summed to generate an aggregate engagement CSS.

Five specific CSS were calculated for singular behaviors for specific comparisons. These consisted of the respective overall means for the "average" male and female student: lifetime engagement in intercourse, number of sexual partners, masturbation, receiving oral sex, and sexting a significant other.

Overall, 12 CSS were calculated; for both the "average" male and female student, an aggregate engagement, intercourse, number of partners, masturbation, receiving oral sex, and sexting CSS were generated. These represent the participants' collective perception of the "average" male and female student's sexual behavior with respect to

each of these constructs. See Table 1 for specific definitions and operationalization of constructs.

**Individual Perceptions of Current Sexual Scripts (IPCSS).** To evaluate each participant's individual perception of the current sexual script regarding overall sexual engagement, the researcher first calculated z-scores for each participant for each of the 15 selected behaviors. These z-scores were then summed; thus, an aggregate engagement IPCSS was generated for each participant.

Five specific IPCSS consisted of the respective z-scores for each participant's perception of the "average" male and female student's engagement in each of the five selected singular behaviors (i.e., intercourse, number of partners, masturbation, receiving oral sex, and sexting a significant other).

Thus, for each participant, 12 IPCSS were calculated. For both the "average" male and female student, an aggregate engagement, intercourse, number of partners, masturbation, receiving oral sex and sexting IPCSS were generated for each participant. See Table 1 for which behaviors were included in each level of analysis.

#### **Individual disposition measures.**

**Personality inventory.** To assess participants' endorsement of the Big-Five personality traits (i.e., extroversion, agreeableness, conscientiousness, emotional stability, and openness to experience), they completed the Ten-Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swan, 2003; Appendix D). Across 10 Likert-type scales, participants indicated the extent to which personality descriptors applied to them from 1 (*strongly disagree*) to 7 (*strongly agree*). Two scales corresponded to each trait; responses were averaged accordingly, resulting in a score from 1 to 7 for each of the Big-

Five personality traits. Higher values indicate greater endorsement of that dimension. The TIPI has demonstrated good convergent validity with both the NEO Personality Inventory, Revised (NEO-PI-R) and the Big-Five Inventory (BFI) as well as good test-retest reliability ( $r = .72$ ; Gosling et al., 2003). Internal reliability of this measure in the current study (i.e., Extraversion  $\alpha = .70$ , Agreeableness  $\alpha = 0.34$ , Conscientiousness  $\alpha = .47$ , Emotional Stability  $\alpha = .61$ , Openness  $\alpha = .46$ ) was consistent with or better than has been previously established (Gosling et al., 2003). See Table 2 for descriptive statistics.

**Importance of faith.** To assess the importance of faith in one's life, or faith salience, the researcher utilized the Importance Subscale of the Dimensions and Correlates of Religious Ideologies (Putney & Middleton, 1961; Appendix E). In an attempt to assess a broader construct, the researchers utilized the term *faith* as opposed to *religion* in all questions. This subscale assessed participants' agreement with 6 statements regarding the importance of their faith in everyday life on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Scores were averaged with greater scores indicating greater importance of faith. A Cronbach's alpha of .89 was indicated for this measure. See Table 2 for descriptive statistics.

**Gender role nonconformity.** Researchers generated a gender nonconformity measure to assess the extent to which an individual's behaviors, physical presentation, and attitudes align with U.S. conventions surrounding gender roles (Appendix F). These conventions were defined as "men are to act masculine and women feminine." The measure consists of three statements to which participants indicate their agreement from 1 (*strongly align*) to 7 (*strongly not align*). Scores were averaged together with higher

values indicating greater gender nonconformity. Reliability testing indicated a Cronbach's alpha of .81 for this measure. See Table 2 for descriptive statistics.

**Additional sex-related measures.**

***Parental attitudes and comfort regarding sex.*** Various parental factors have been shown to affect sexual decision making and sexual engagement (Fantasia, 2008; Yip et al., 2013). Therefore, the researcher included selections from Lewis and Janda's (1988) Sexual History and Adjustment Questionnaire that focus on parental attitudes and comfort regarding sexuality (Appendix G). Participants indicated their degree of comfort in talking to their mother and father about sexual matters and the degree of comfort their mother and father felt when talking about sexuality both on a scale from 1 (*extreme discomfort*) to 5 (*extreme comfort*). Participants also characterized their mother and father's attitude toward sexuality on a scale from 1 (*extremely negative*) to 5 (*extremely positive*). The mean of items resulted in an overall Parental Attitudes Scale with greater values indicating more positive attitudes and greater comfort. Reliability testing indicated a Cronbach's alpha of .74. See Table 2 for descriptive statistics.

***Sexual knowledge.*** In an attempt to assess participant's degree of understanding about sex and sexuality, the researchers created a sexual knowledge measure (Appendix H). The measure consisted of 10 multiple-choice questions that assessed sex-related knowledge on a variety of topics including sexual anatomy and physiology, contraception, and sexuality. For example, "Which of the following increases the possibility of premature ejaculation?" or "Which of the following statements regarding HIV is FALSE?" Questions were selected by the university's Human Sexuality course instructor to appropriately survey sexual knowledge while minimizing ceiling effects.

Resulting scores consisted of the number of correctly answered questions out of a possible 10. Higher scores indicated greater knowledge. See Table 2 for descriptive statistics.

### **Data Management**

Participants were automatically assigned an identification number associated with their online data. No personal identifying information was ever collected. Original data on SurveyMonkey remains password protected and was downloaded to a password protected computer that is kept in a locked laboratory. The data was also kept on a separate storage device as a safeguard against computer failure and was kept in the primary researcher's possession.

### **Data Analysis Plan**

**Behavioral data screening and selection.** Due to the breadth and open-ended nature of the behavioral reports, collected data required large amounts of screening to ensure responses were accurate and valid. The nature of material and potential for exaggerated responding led researchers to carefully scrutinize responses for feasibility and statistical validity. Thus, a large sample size was recruited to ensure that removing responses that did not meet strict criteria would not negatively affect statistical power or breadth of student experience. Once data collection was complete, student responses were downloaded directly from SurveyMonkey. For behavioral frequency data, researchers first screened for invalid data that was obviously patterned or consisted of nonsensical repeated values. Second, researchers screened remaining responses for obvious outliers

(i.e., values beyond physical possibility). Only specific behavior outliers were removed, the remaining behavioral responses for a participant, if valid, were included.

Once this preliminary evaluation was complete, researchers screened for statistical outliers. Participant responses that were greater than 3 standard deviations above the mean were removed. This cutoff was selected as a slightly more conservative cutoff than was presented in the literature (e.g., 3.29 standard deviations) due to specific concerns regarding exaggerated reporting and participant entry error (Tabachnick & Fidell, 2007). These screens were conducted on a behavior-by-behavior basis, and thus the number of data points removed varies by participant according to specific behaviors. Regarding the 16 behavioral variables included in the current analysis (i.e., intercourse, masturbation, giving and receiving manual genital stimulation, giving and receiving oral sex, “one night stand,” “friend with benefits,” talking “dirty”, sadomasochistic sex, and watching pornography, sending and receiving sext messages to significant and non-significant others, and number of partners), the number of obvious outliers removed ranged from 0 to 4 responses, with a mean of 1 response removed. The number of statistical outliers removed ranged from 0 to 14 responses, with an average of 7 responses removed.

**Traditional sexual scripts (TSS) versus current sexual scripts.** First the researcher explored whether the sex differences predicted by TSS were present in current sexual scripts. To do so for aggregate behavior (i.e., Hypothesis 1a), the researcher used paired-samples t-tests to determine if differences exist between the “average” male student’s aggregate engagement current sexual script and the “average” female student’s aggregate engagement current sexual script, including 15 sexual behaviors (i.e.,

Hypothesis 1a) and the “average” male student’s current sexual script for the 5 specific behaviors (i.e., Hypotheses 1b - 1f) and the “average” female student’s current sexual script for these same behaviors. A total of 6 paired-samples t-tests were conducted with an adjusted  $\alpha$  value of .01 to control for error. See Table 1 for which behaviors were included in each level of analysis.

**Factors contributing to collective sexual script (CSS) and individual perceptions of current sexual script (IPCSS) congruence.** To evaluate Hypothesis 2 and to determine the factors that contribute to the difference between CSS and IPCSS, the researcher first calculated the CSS for both males and females for the 6 behavioral scripts. This required calculating the means of all 16 behaviors included in analyses for males and females separately. To generate the aggregate engagement CSS, the researcher summed the CSS for the 15 selected behaviors for both males and females. Thus, 12 CSS were generated, a male and a female, for aggregate engagement, intercourse, number of partners, masturbation, receiving oral sex, and sexting. These remained the same from participant to participant.

Next, the researcher calculated the IPCSS for males and females of each participant. First the researcher generated standard scores for participant’s responses across all 16 behavioral variables included in analyses for the “average” male and female separately (see Table 1 for behaviors included). This ensured that behaviors contributed evenly to aggregate engagement scripts. To generate the aggregate engagement IPCSS, the researcher summed the standard scores for the 15 included behaviors for each participant and for the “average” male and female student separately. To generate the 5 individual behavior IPCSS, no additional calculations were needed. Thus, each

participant had a unique set of 12 IPCSS, one for the “average” male and female for aggregate behavior, intercourse, number of partners, masturbation, receiving oral sex, and sexting.

To generate CSS-IPCSS difference scores, the researcher subtracted the corresponding IPCSS from the CSS for each participant. Lastly, the researcher took the absolute value of this difference score so that greater values indicated greater differences, regardless of direction. Twelve CSS-IPCSS resulted for each participant.

Using linear regression analyses, the researcher investigated which factors (i.e., age, sex, relationship status, personality, faith salience, gender nonconformity, parental attitudes/comfort regarding sex, and sexual knowledge) significantly predicted the various difference scores. Before running analyses, the researcher conducted preliminary correlations to exclude collinear factors; factors with correlations greater than .70 to each other were deemed collinear, and only one of these factors was entered into the linear regression. Additionally, to minimize extraneous factors and maximize statistical power, the researcher ran additional preliminary correlations with the remaining factors and congruence scores. Only factors with medium (.30) to large (.50) correlation coefficients were entered into the multiple regression (Cohen, 1988, p. 79). In total, 12 multiple regressions were conducted with an adjusted  $\alpha$  value of .01 to control for error.

#### **CSS-actual behavior congruence versus IPCSS-actual behavior congruence.**

To evaluate Hypothesis 3 and determine if the difference between IPCSS and actual behavior was significantly less than the difference between CSS and actual behavior, the researcher generated CSS-actual behavior and IPCSS-actual behavior difference scores for each participant for each of the 6 behavioral scripts explored (see Table 1). CSS and

IPCSS were sex-matched to the participant, so each participant only had one CSS-actual behavior difference score and one IPCSS-actual behavior difference score for each script examined.

To generate an aggregate engagement score for each participant, the researcher first standardized participant's reported sexual engagement for all 16 behavioral variables included in analyses. Then, the researcher summed together the standard scores for the 15 behaviors included in the aggregate engagement score (see Table 1). To generate CSS-actual behavior difference scores for the 6 behavioral scripts, the researcher subtracted each participant's reported behavior from the CSS of the sample, matching the sex of the "average" student to the sex of the participant. Lastly, the absolute value was calculated for the resulting difference so that each participant had 6 unique, sex-matched CSS-actual behavior difference scores for each participant, where greater values indicated greater differences between the CSS and one's reported behavior.

The same process was repeated for IPCSS-actual behavior difference scores, resulting in 6 unique, sex matched IPCSS-actual behavior difference scores for each participant, where greater values indicated greater differences between IPCSS and one's reported behavior. Using paired-samples t-tests, the researcher investigated whether significant differences existed between CSS-actual behavior difference scores and IPCSS-actual behavior difference scores. A total of 6 paired-samples t-tests were conducted with an adjusted  $\alpha$  value of .01 to control for error.

**Factors contributing to IPCSS-actual behavior congruence.** To evaluate Hypothesis 4 and determine the factors (i.e., age, sex, relationship status, personality,

faith salience, gender nonconformity, parental attitudes/comfort regarding sex, and sexual knowledge) that contributed to the difference between IPCSS and actual behavior, the researcher again used linear regression analyses to identify which factors significantly contributed to the IPCSS and actual behavior congruence scores for both aggregate engagement (i.e., Hypothesis 4a) and the 5 individual behavioral variables (i.e., Hypotheses 4b – 4f). See Table 1 for which behaviors were included in each level of analysis. Again, before conducting analyses, the researcher conducted preliminary correlations to minimize collinearity and to select the most relevant factors to include in regression analyses. Six multiple regression analyses were conducted with an adjusted  $\alpha$  value of .01 to control for error.

**Factors contributing to CSS-actual behavior congruence.** Lastly, to evaluate Hypothesis 5, the researcher conducted analyses to investigate the factors that contributed to the difference between CSS and actual behavior. To do so, the researcher again used linear regression analyses to investigate which factors (i.e., age, sex, relationship status, personality, faith salience, gender nonconformity, parental attitudes/comfort regarding sex, and sexual knowledge) significantly contributed to the CSS and actual behavior congruence scores for both aggregate engagement (i.e., Hypothesis 5a) and the 5 individual behavioral variables (i.e., Hypotheses 4b – 4f). The same screening procedures were used to explore factors in Hypothesis 5 as were used for Hypothesis 4. Again, 6 linear regression analyses were conducted with an adjusted  $\alpha$  value of .01 to control for error.

## Results

### Traditional Sexual Scripts versus Current Sexual Scripts

To evaluate the continued presence of Traditional Sexual Scripts on college campuses and Hypotheses 1a through 1f, the researcher examined differences between the perceived sexual engagement of the “average” male student and the “average” female student. To do so, the researcher utilized a series of paired-samples t-tests. Results supported Hypothesis 1a; no significant differences existed between participants’ perceptions of males and females aggregate sexual behavior across 15 sexual behaviors,  $t(666) = -0.06, p = .10$ . See Table 3 for group means and standard deviations.

Regarding differences between the perceptions of the average male and female student in terms of intercourse, results supported Hypothesis 1b; participants perceived males to have significantly more intercourse than females,  $t(593) = 10.86, p < .001$  (see Table 3). Additionally, as predicted in Hypothesis 1c, participants perceived the “average” male to have significantly more intercourse partners than the “average” female,  $t(600) = 15.01, p < .001$  (see Table 3).

Results supported Hypothesis 1d; participants perceived the “average” male has masturbated significantly more than the “average” female,  $t(623) = 10.90, p < .001$  (see Table 3). As predicted by Hypothesis 1e, participants also perceived that males received significantly more oral sex than females,  $t(601) = 8.08, p < .001$  (see Table 3). Contrary to Hypothesis 1f, participants perceived that the “average” male sexted significant others significantly more than the “average” female,  $t(587) = 3.62, p < .001$  (see Table 3).

Table 3

*Traditional Sexual Scripts Evaluation: Means and Standard Deviations for Hypothesis 1*

Hyp.	Behavioral Script	Perception of the “Average Male”		Perceptions of the “Average Female”		Supported?
		M	SD	M	SD	
1a	Aggregate Behavior	-.007	7.78	.001	7.78	Yes
1b	Intercourse	112.11*	166.35	73.76*	110.15	Yes
1c	Intercourse Partners	8.95*	8.75	5.46*	4.95	Yes
1d	Masturbation	401.87*	780.49	102.23*	210.41	Yes
1e	Oral Sex	50.84*	86.30	29.86*	45.43	Yes
1f	Sexting	25.99*	45.23	21.54*	31.96	No

*Note.* Greater values indicated greater perceived engagement. \*Indicates significant sex difference,  $p < .001$

### Factors Contributing to CSS-IPCSS Congruence: Exploratory Analyses

**Collinearity and strength prescreening results.** Before evaluating Hypothesis 2, exploring the factors that contribute to the difference between the CSS and one’s IPCSS, the researcher screened for collinearity between participant factors. A correlation matrix with the 10 continuous participant factors (i.e., age, Big 5 personality traits, parental attitudes and comfort regarding sex, faith salience, gender nonconformity, and sexual knowledge) revealed none of the factors were collinear (i.e.,  $r > .70$ ,  $p < .01$ ). Utilizing all 10 factors and difference scores for each behavioral script, the researcher conducted the proposed strength screens to minimize extraneous factors (i.e., only factors with  $r \geq .30$

included in future analyses). None of resulting relationships demonstrated an  $r \geq .30$ . The researcher also conducted preliminary t-tests with congruence scores and categorical factors (i.e., participant sex and relationship status). Based on these preliminary correlations and t-tests, linear regressions were conducted if at least two factors were significantly ( $p < .01$ ) related to congruence scores in preliminary screens, despite a lack of medium or large correlation coefficients. See Table 4 for factors included in analyses.

**Correlation and linear regression results.** Results of Hypothesis 2a indicated there were no significant relationships between any of the factors and the CSS-IPCSS difference scores for aggregate engagement for “average” male or female students. Regarding intercourse (i.e., Hypothesis 2b) for the “average” male, a linear regression analysis indicated participant’s age, relationship status, and agreeableness explained 4% of the variance in CSS-IPCSS difference scores,  $F(3, 536) = 6.59, p < .01$ . Relationship status and agreeableness significantly predicted differences. See Table 4 for factor-specific  $\beta$  and significance values. For the “average” female (Hypothesis 2b), a linear regression analysis indicated participant age and relationship status explained 3% of the variance in CSS-IPCSS difference scores for intercourse,  $F(2, 536) = 6.59, p < .01$ . Relationship status significantly predicted differences (see Table 4).

Only one factor, gender nonconformity, was marginally significantly related to the CSS-IPCSS difference score for the “average” male’s number of partners (i.e., Hypothesis 2c),  $r = .09, p = .03$ . Regarding the “average” female’s number of partners (Hypothesis 2c), a linear regression approaching significance indicated a participant’s age and gender nonconformity explained 1% of the variance in the CSS-IPCSS difference scores,  $F(2, 595) = 4.37, p = .01$ . Participants’ age marginally predicted differences (see Table 4).

Table 4

*Factors Relating to CSS-IPCSS Congruence: Results for Hypothesis 2*

Hyp.	Behavioral Script	Sex of “Average” Student	Participant Factors Included	$\beta$	R <sup>2</sup>
2a	Aggregate Behavior	Male	None	-	-
		Female	None	-	-
2b	Intercourse	Male	Age	.06	.04*
			Relationship Status	.12*	
		Female	Agreeableness	-.12*	
			Age	.09♦	
2c	Intercourse Partners	Male	Gender Nonconformity	$r = .09♦$	
		Female	Age	.09♦	.01♦
			Gender Nonconformity	.07	
2d	Masturbation	Male	Age	.10*	.03*
			Sex	-.12*	
		Female	Sex	-.08	
			Agreeableness	-.08	
			Conscientiousness	-.09♦	
2e	Receiving Oral Sex	Male	Age	$r = .10♦$	
		Female	Age	$r = .10♦$	
2f	Sexting	Male	Conscientiousness	$r = -.10♦$	
		Female	Conscientiousness	$r = -.08♦$	

*Note.* If only 1 factor was significantly correlated to a given behavioral script, the  $r$ -value of the correlation is reported. \*Indicates significant difference,  $p < .01$ ; ♦Indicates marginally significant difference,  $p < .05$ .

Regarding CSS-IPCSS difference scores for masturbation (i.e., Hypothesis 2d), age and sex explained 3% of the variance for the “average” male,  $F(2, 624) = 8.51, p < .01$ . Both age and sex were significant predictors (see Table 4). For the “average” female,

participant sex, agreeableness, conscientiousness, and faith salience explained 3% of the variance in CSS-IPCSS differences for masturbation (Hypothesis 2d),  $F(4, 616) = 4.94, p < .01$ . Conscientiousness and faith salience marginally predicted difference scores (see Table 4).

Only participant age was marginally significantly related to the CSS-IPCSS congruence score for receiving oral sex (Hypothesis 2e) for both the “average” male,  $r = .10, p = .02$  and female,  $r = .10, p = .01$ . Lastly, only one factor was marginally related to CSS-IPCSS difference scores for sexting (Hypothesis 2f). Conscientiousness was marginally correlated with difference scores for both the “average” male,  $r = -.08, p = .04$  and the “average” female,  $r = -.10, p = .01$  (see Table 4).

### **CSS-Actual Behavior Congruence versus IPCSS-Actual Behavior Congruence**

To evaluate Hypothesis 3 and whether CSS or IPCSS were more congruent with participant sexual behavior, the researcher conducted a series of paired-samples t-tests. A total of 6 tests were conducted, comparing the difference scores between CSS and actual behavior and IPCSS and actual behavior for each of the 6 behavioral scripts (i.e., aggregate engagement, intercourse, number of partners, masturbation, receiving oral sex, and sexting).

All results supported Hypothesis 3; IPCSS were significantly more congruent with participants' actual behavior than CSS and actual behavior. Specifically, this was found at the  $p < .001$  level for aggregate engagement (i.e., Hypothesis 3a),  $t(667) = -5.26$ ; intercourse (i.e., Hypothesis 3b),  $t(587) = -7.41$ ; masturbation (i.e., Hypothesis 3d),  $t(617) = -7.70$ ; receiving oral sex (Hypothesis 3e),  $t(596) = -3.74$ ; and sexting (Hypothesis 3f),  $t(588) = -4.05$ . However, regarding number of partners (Hypothesis 3c),

the difference between congruence scores only approached significance,  $t(588) = -2.46$ ,  $p = .01$ . See Table 5 for means and standard deviations.

Table 5

*CSS-Behavior and IPCSS-Behavior Congruence Evaluations: Means and Standard Deviations for Hypothesis 3*

Hyp.	Behavioral Script	CSS-Behavior Gap		IPCSS-Behavior Gap	
		M	SD	M	SD
3a	Aggregate Behavior	5.11*	5.22	4.06*	5.45
3b	Intercourse	129.06*	198.30	98.12*	192.85
3c	Intercourse Partners	4.61♦	2.67	4.08♦	5.02
3d	Masturbation	222.99*	324.54	137.37*	310.59
3e	Receiving Oral Sex	47.23*	81.37	38.80*	88.83
3f	Sexting	27.13*	39.67	21.50*	42.01

*Note.* Greater values indicated a greater difference between the script and actual behavior.

Script evaluations were sex-matched for each participant so that female participants' behavior was compared to the female CSS and IPCSSS for a given behavior. \*Indicates significant difference,  $p < .001$ ; ♦Indicates marginally significant difference,  $p < .05$ .

## Factors Contributing to IPCSS-Actual Behavior Congruence: Exploratory Analyses

**Collinearity and strength prescreening results.** Before evaluating Hypothesis 4 and the potential factors related to the congruence between IPCSS and a participant's actual behavior, the researcher conducted the collinearity and strength prescreening previously described. Again, no collinearity or medium or large correlation coefficients were found. Therefore, based on preliminary correlations and t-tests, linear regressions were conducted for IPCSS-behavior difference scores with at least two significantly related factors ( $p < .01$ ). See Table 6 for factors included in analyses.

**Correlation and linear regression results.** To evaluate the participant factors associated with the difference between IPCSS and a participant's actual aggregate sexual behavior (i.e., Hypothesis 4a), the researcher conducted a linear regression. Results indicated participant age, sex, agreeableness, and sexual knowledge explained 7% of the variance in IPCSS-behavior difference scores,  $F(4, 644) = 11.48, p < .01$ . Age, sex, and agreeableness significantly predicted congruence for aggregate engagement; sex knowledge marginally predicted congruence (see Table 6).

Regarding IPCSS-behavior congruence for intercourse and Hypothesis 4b, linear regression analyses revealed that participant age, relationship status, and agreeableness explained 4% of the variance. Age significantly predicted IPCSS-behavior differences for intercourse; relationship status and agreeableness were only marginally significant (i.e.,  $.01 < p < .05$ ) predictors (see Table 6).

Table 6

*Factors Relating to IPCSS-Behavior Congruence: Results for Hypothesis 4*

Hyp.	Behavioral Script	Participant Factors Included	$\beta$	R <sup>2</sup>
4a	Aggregate Behavior	Age	.13*	.07*
		Sex	-.14*	
		Agreeableness	-.11*	
		Sex Knowledge	.09♦	
4b	Intercourse	Age	.16*	.04*
		Relationship Status	.09♦	
		Agreeableness	-.11♦	
4c	Intercourse Partners	Sex	$t(170.54) = 2.76^*$	
4d	Masturbation	Age	.11*	.12*
		Sex	-.33*	
4e	Receiving Oral Sex	Age	.11♦	.11*
		Sex	-.19*	
		Relationship Status	.12*	
		Agreeableness	-.12*	
		Conscientiousness	-.06	
		Openness	-.04	
4f	Sexting	Sex Knowledge	.08	
		Age	$r = .10♦$	

*Note.* If only 1 factor was significantly related to a given behavioral script, the corresponding  $r$  or  $t$ -value is reported. \*Indicates significant difference,  $p < .01$ ;

♦Indicates marginally significant difference,  $p < .05$ .

Participant sex was the only factor significantly associated with the difference between IPCSS and actual number of partners (Hypothesis 4c). The resulting t-test indicated males ( $M = 4.41$ ,  $SD = 7.38$ ) indicated significantly greater discrepancies

between IPCSS and their behavior than females ( $M = 3.65$ ,  $SD = 3.87$ ),  $t(170.54) = 2.76$ ,  $p < .01$ .

Regarding masturbation and Hypothesis 4d, linear regression analyses indicated that participant age and sex explained 12% of the variance in IPCSS-behavior difference scores. Both age and sex significantly predicted differences (see Table 6).

Linear regression analyses exploring the factors associated with IPCSS-behavior differences for receiving oral sex (i.e., Hypothesis 4e) revealed that participant age, sex, relationship status, agreeableness, conscientiousness, openness, and sexual knowledge explained 11% of the variance,  $F(7, 516) = 9.28$ ,  $p < .01$ . Sex, relationship status, and agreeableness significantly predicted IPCSS-behavior differences for receiving oral sex; age marginally predicted differences (see Table 6). Lastly, regarding sexting, only participant age was marginally significantly related to IPCSS-behavior congruence,  $r = .10$ ,  $p = .02$ .

### **Factors Contributing to CSS-Actual Behavior Congruence: Exploratory Analyses**

**Collinearity and strength prescreening results.** Before evaluating Hypothesis 5 and the potential factors related to the congruence between CSS and a participant's actual behavior, the researcher conducted the collinearity and strength prescreening previously described. Again, no collinearity or medium or large correlation coefficients were found. Therefore, based on these preliminary analyses, linear regressions were conducted for congruence scores with at least two significantly related factors ( $p < .01$ ). See Table 7 for factors included in analyses for each behavioral script.

Table 7

*Factors Relating to CSS-Behavior Congruence: Results for Hypothesis 5*

Hyp.	Behavioral Script	Participant Factors Included	$\beta$	R <sup>2</sup>	
5a	Aggregate Behavior	Age	.07	.07*	
		Sex	-.19*		
		Agreeableness	-.12*		
		Sex Knowledge	.08♦		
5b	Intercourse	Age	.18*	.09*	
		Sex	-.11*		
		Relationship Status	.10♦		
		Agreeableness	-.14*		
5c	Intercourse Partners	Sex	-.45*	.24*	
		Conscientiousness	-.06		
		Extraversion	-.08♦		
		Neuroticism	.02		
5d	Masturbation	Age	.10*	.17*	
		Sex	-.40*		
		Age	.14*		.10*
		Sex	-.20*		
Agreeableness	-.15*				
Sex Knowledge	.07				
5f	Sexting	Age	.07	.01♦	
		Extraversion	-.08		

*Note.* \*Indicates significant difference,  $p < .01$ ; ♦Indicates marginally significant difference,  $p < .05$ .

**Correlation and linear regression results.** To investigate the factors that influence the congruence between a participant's actual aggregate engagement and the corresponding CSS (i.e., Hypothesis 5a), the researcher conducted a linear regression.

Participant age, sex, agreeableness, and sexual knowledge explained 7% of the variance in CSS-aggregate engagement difference scores,  $F(4, 667) = 12.94, p < .01$ . Participant sex and agreeableness significantly predicted differences, while sexual knowledge was only marginally predictive (see Table 7).

For intercourse and Hypothesis 5b, participant age, sex, relationship status, agreeableness and sexual knowledge explained 9% of the variance in CSS-behavior difference scores,  $F(5, 570) = 10.61, p < .01$ . Age, sex, and agreeableness significantly predicted differences, whereas relationship status only marginally predicted differences (see Table 7). Regarding number of partners and Hypothesis 5c, participant sex, conscientiousness, extraversion, neuroticism, and faith salience contributed to 24% of the variance in CSS-behavior difference scores. Participant sex was the only significant predictor of differences for number of partners; extraversion and faith salience were marginally predictive (see Table 7).

Participant age and sex explained 17% of the variance in CSS-behavior differences for masturbation and Hypothesis 5d,  $F(2, 647) = 67.55, p < .01$ . Both age and sex significantly predicted differences (see Table 7). For receiving oral sex and Hypothesis 5e, participant age, sex, agreeableness, and sex knowledge explained 10% of the variance in CSS-behavior difference scores. Age, sex, and agreeableness all significantly predicted differences (see Table 7).

Lastly, age and extraversion explained 1% of the variance in CSS-behavior congruence for sexting (i.e., Hypothesis 5f) with marginal significance,  $F(2, 636) = 3.84, p = .02$ . Neither factor significantly predicted congruence scores (see Table 7).

## Discussion

### Traditional Sexual Scripts versus Current Sexual Scripts

For Hypothesis 1, the researcher examined the continued relevance of traditional sexual scripts as existing literature suggests current sexual scripts may be shifting away from the strict sex differences central to these traditional scripts (Dworkin & O’Sullivan, 2005; Ortiz-Torres et al., 2003; Seal & Ehrhardt, 2003). Results supported Hypothesis 1a, indicating that on an aggregate level, perceptions of sex differences in terms of sexual engagement no longer reflected the sex differences suggested by traditional sexual scripts.

However, as sexual scripts vary across specific contexts within a specific culture (Littleton et al., 2006), the researcher predicted in Hypothesis 1b that current sexual scripts would align with traditional ones and that participants would perceive the “average” male student has engaged in more intercourse than the “average” female student. Results supported Hypothesis 1b. Similarly, in Hypothesis 1c, results indicated that current scripts also suggest the “average” male has had more intercourse partners than the “average” female.

In both Hypothesis 1d (i.e., masturbation) and 1e (i.e., receiving oral sex), the researcher predicted current sexual scripts would also align with traditional sexual scripts. Results confirmed these hypotheses; the “average” male was perceived to have masturbated significantly more than the “average” female. Likewise, current sexual scripts suggested the “average” male had received more oral sex than the “average” female.

Lastly, the researcher predicted that current sexual scripts with regards to the more recent phenomenon of sexting (i.e., Hypothesis 1f) would deviate from traditional sex differences. However, contrary to predictions, current sexual scripts suggest that the “average” male sexts his partner more than the “average” female.

Taken together, the results for Hypothesis 1 suggest that traditional sexual scripts and the tenants associated with them are still relevant when discussing the current sexual scripts of college students. Interestingly, traditional sex differences are still expected and transferred to newer forms of sexual behavior (i.e., sexting), despite these differences being contrary to actual sexual engagement in sexting (de St. Aubin & Yadlosky, 2013). Additionally, this perceived sex difference is contrary to evidence that women are more likely to initiate conversation in general with their partners than men (Holstrom, 2009). Thus, this finding suggests that in terms of cultural perceptions that the sexual nature of the message may overshadow the communication element involved in sexting; because the message is sexual, men “must” engage in this behavior more regularly than women, regardless of understood differences in communication and expressivity between the sexes.

Importantly, though, despite the seemingly universal application of traditional sexual scripts to current scripts, these traditional ideas are not as universally present in this sample as they may have been in the past. Hypothesis 1a (i.e., aggregate behavior) demonstrated that current sexual scripts do not universally reflect traditional ones, as no aggregate sex differences were found across a range of behaviors. This current sexual script reflects the shifts found in current sexual script literature (Dworkin & O’Sullivan, 2005; Ortiz-Torres et al., 2003; Seal & Ehrhardt, 2003) as well as the lack of sex

differences across actual student engagement in many different sexual behaviors (de St. Aubin & Yadlosky, 2013).

Thus, regarding aggregate sexual behavior, current sexual scripts are distinct from traditional expectations of the past and more accurately represent the reported sexual behavior of college students today. Conversely, current scripts regarding specific sexual behaviors do align with traditional sexual scripts, which are contrary to the general equivalence between the sexes in terms of actual sexual engagement (de St Aubin & Yadlosky, 2013). This ultimately suggests that continued discussion of traditional sexual scripts is relevant in today's collegiate culture. However, investigations into sexual scripts should consider potential shifts away from the universal sex differences associated with traditional gender roles that more accurately reflect current sexual engagement.

#### **Factors Contributing to CSS-IPCSS Congruence: Exploratory Analyses**

In Hypothesis 2, within the realm of current cultural sexual scripts, the researcher explored what factors significantly predicted the difference between the collective sexual script (CSS) and participants' individual perceptions of current sexual scripts (IPCSS). See Table 1 for definitions and operationalization of scripts. The researcher conducted exploratory linear regressions associated with differences between the CSS and IPCSS for aggregate behavior and the 5 individual behavioral variables for both the "average" male and female student. Overall results indicate that the factors selected explained a small amount of variance, 1% - 4%, in the difference scores. See Table 4 for specific results.

Hypothesis 2a examined the factors associated with the difference between CSS and IPCSS for aggregate engagement. For both the "average" male and female student,

no factors were significantly related to CSS-IPCSS difference scores. Therefore, linear regressions were not conducted. None of participants' various demographic variables (i.e., age, sex, relationship status), individual disposition measures (i.e., Big-Five personality traits, faith salience, gender role nonconformity), or additional sex-related measures (i.e., parental attitudes/comfort regarding sexuality, sexual knowledge) were related to the amount one's IPCSS differed from the CSS of the entire sample. While it is possible that additional factors that were not assessed in this study (e.g., peer influence) explain the variance in CSS-IPCSS scores across the 15 behaviors used, this finding likely suggests that the relationship between CSS and IPCSS demonstrates significant variability across the 15 sexual behaviors.

Hypothesis 2b, exploring factors associated with the CSS-IPCSS difference for intercourse for the "average" male student, revealed that participants' age, relationship status, and agreeableness explained 4% of the variance. Participants in committed relationships and participants with lower agreeableness indicated significantly greater CSS-IPCSS differences in their perceptions of the "average" male. Regarding perceptions of the "average" female, participants' age and relationship status explained 3% of the variance in CSS-IPCSS differences. Thus for perceptions of the "average" female, greater differences were associated with older participants and those in committed relationships.

Hypothesis 2c investigated the factors related to the CSS-IPCSS difference regarding number of intercourse partners. Regarding perceptions of the "average" male student, only participants' gender nonconformity was marginally related to difference scores, with greater differences being associated with greater gender nonconformity. For participants' perceptions of the "average" female, factors explained only 1% of the

variance in CSS-IPCSS difference scores with age as the only marginally significant predictor. Older participants indicated greater differences between their IPCSS and the overarching CSS.

Hypothesis 2d examined the differences between CSS and IPCSS regarding masturbation. Explaining 3% of the variance, both participant age and sex predicted CSS-IPCSS difference scores for perceptions of the “average” male. Older participants and males indicated greater differences between their IPCSS and actual CSS scores for the “average” male student. Regarding perceptions of the “average” female student and CSS-IPCSS difference scores for masturbation, conscientiousness and faith salience were significant predictors, explaining 3% of the variance alongside participant sex and agreeableness. Lower conscientiousness and greater faith salience were associated with greater differences between CSS and IPCSS for masturbation for the “average” female.

Hypothesis 2e investigated CSS-IPCSS differences for receiving oral sex. Participants’ age marginally predicted difference scores for perceptions of the “average” male, explaining 1% of the variance. Older participants reported greater difference scores regarding perception of the “average” male’s engagement in masturbation. Regarding perceptions of the “average” female’s engagement in masturbation, participant age also predicted CSS-IPCSS difference scores and explained 2% of the variance. Again, older participants reported greater difference scores.

Hypothesis 2f explored the difference between CSS and IPCSS regarding sexting behavior. Regarding the “average” male, only conscientiousness was marginally related to CSS-IPCSS difference scores, with lower participant conscientiousness being associated with greater differences. For the “average” female, participants’ CSS-IPCSS

difference scores were also related to conscientiousness, with lower conscientiousness again relating to greater IPCSS-CSS differences for sexting.

Taken together, results for Hypotheses 2 suggest that the relationship between specific participant factors and CSS-IPCSS difference scores vary based on the behavioral script being examined. Intercourse, number of partners, receiving oral sex, and sexting all demonstrated some consistency between the sexes of the “average” student regarding which factors predicted CSS-IPCSS difference scores (i.e., relationship status, gender nonconformity, age, and conscientiousness respectively). This suggests that the individual factors related to one’s perception of the CSS are at least somewhat consistent within a specific behavioral script regardless of the sex of the “average” student perceived.

Predictors of CSS-IPCSS difference scores for masturbation varied depending on the sex of the average student (e.g., male: participant age and sex; female: participant conscientiousness and faith salience). This may suggest that, compared to the other individual behavioral variables examined, perceptions surrounding masturbation are more sex-specific. The processes through which individuals perceive the “normal” engagement of males related to participant demographic factors, whereas the perception of females’ “normal” engagement relied more heavily on individual dispositions of participants. Generally, however, results for both the aggregate engagement scripts and individual behavioral scripts besides masturbation suggest that congruence between one’s IPCSS and the actual CSS is more closely associated with the specific behavior being addressed as opposed to whether the “average” student was male or female.

Additionally, despite explaining a very small amount of variance between CSS and IPCSS difference scores, age at least marginally predicted differences scores for several behavioral scripts (i.e., female intercourse, female number of partners, male masturbation, both male and female receiving oral sex) in the same direction. Older participants were associated with greater difference scores. Thus, if participants were using their personal behavior as a reference when reporting their IPCSS, findings suggest that older students' behavior (i.e., their reference point) deviated more from the CSS than the behavior of younger students. As such, greater deviance of IPCSS from CSS may indicate greater maturity.

Also of note, the two personality factors related to CSS-IPCSS differences (i.e., conscientiousness and agreeableness) were consistently in the negative direction. Greater differences between CSS and IPCSS were associated with lower conscientiousness and agreeableness. This indicates that conscientious and agreeable college students are more likely to align their perceptions of others with the general norm.

Neither sex-related factor (i.e., parental attitudes/comfort regarding sex nor sexual knowledge) were associated with any of the IPCSS-CSS difference scores, regardless of behavioral script or sex of the “average” student. Somewhat surprisingly, one's relation to sexual material, associated with one's childhood or resulting overall knowledge, had no relation to whether one's IPCSS aligned with the CSS.

### **CSS-Actual Behavior Congruence versus IPCSS-Actual Behavior Congruence**

In Hypothesis 3, the researcher examined whether CSS or IPCSS were more congruent with participants' actual behavior. As predicted, IPCSS were more congruent with participants' reported engagement than CSS. More specifically, the difference

between a participant's sex-matched IPCSS and his or her reported behavior for aggregate engagement, intercourse, masturbation, receiving oral sex, and sexting were significantly less than CSS-actual behavior differences. For number of partners, this pattern approached significance. See Table 5 for specific results.

These findings mirror existing literature that suggests an individual's interpersonal sexual scripts differ from broader cultural scripts, as interpersonal scripts incorporate personal values and ideas (McCabe et al., 2010; Simon & Gagnon, 1984). Thus, interpersonal scripts are more likely to be more similar to one's actual sexual behavior than cultural sexual scripts. Importantly, the current findings indicate that different levels of these cultural scripts also demonstrate significantly different relationships with actual sexual behavior. One's perception of the cultural sexual script (i.e., IPCSS) more directly aligns with one's behavior than the overarching cultural sexual script (i.e., CSS). This difference suggests that participants were potentially using their own personal values, ideas, and sexual engagement, to estimate how the "average" student behaves. Using self-knowledge to guide understanding of others' behavior in this way is a well-established construct and involves complex social comparison processes (Baumeister, 2011).

#### **Factors Contributing to IPCSS-Actual Behavior Congruence: Exploratory Analyses**

Hypothesis 4 investigated the participant factors that related to the difference between IPCSS and actual behavior. IPCSS were matched with the sex of the participant for analyses. Explorations across the six IPCSS-actual behavior difference scores indicated that selected participant factors explained between 2% and 12% of the variance. See Table 6 for specific results.

For Hypothesis 4a, participant age, sex, agreeableness, and sex knowledge predicted IPCSS-actual behavior difference scores for aggregate engagement explaining 7% of the variance. Older participants, males, and those with lower agreeableness indicated significantly greater differences between IPCSS and actual aggregate behavior. Greater sex knowledge marginally predicted greater differences as well.

In Hypothesis 4b exploring IPCSS-actual intercourse behavior, participant age, relationship status, and agreeableness explained 4% of the variance. Again older and less agreeable participants indicated greater IPCSS-behavior differences. Being in a committed relationship marginally predicted greater differences.

Exploring Hypothesis 4c revealed that participant sex was the only significantly related factor to IPCSS-behavior difference scores for number of partners. Again, males reported greater IPCSS-behavior differences than females.

Hypothesis 4d explored IPCSS-actual behavior differences regarding masturbation. Participant age and sex significantly predicted greater IPCSS-behavior differences, explaining 12% of the variance. Older participants and males indicated greater difference scores.

For Hypothesis 4e, participant factors combined to account for 11% of the variance in IPCSS-actual behavior difference scores for receiving oral sex. See Table 6 for specific factors. Of these, participant age, sex, relationship status, and agreeableness at least moderately predicted difference scores. Committed participants, males, and those with lower agreeableness indicated greater significantly differences between IPCSS and receiving oral sex. Older age was a moderate predictor of greater differences.

Exploring IPCSS-actual sexting behavior differences, Hypothesis 4f indicated that participant age was the only marginally significantly related factor, with older age moderately predicting greater differences.

Taken together, results for Hypothesis 4 suggest that, despite explaining only a small amount of variance, the factors selected were more predictive of difference scores between IPCSS and actual behavior than they were of difference scores between IPCSS and CSS. This indicates that IPCSS-behavior differences may be more stable across behaviors and more related to the demographic, individual disposition, and sex-related factors. For example, even when collapsing across 15 behaviors to assess IPCSS-actual aggregate engagement differences, the selected factors demonstrated a consistent enough effect to explain 7% of the variance in this difference score. While this is a very small amount of the overall variance, it is notable that significant factors emerged at all.

Results also indicated that behavior-specific variability was present. Selected factors accounted for more than 10% of the variance in IPCSS-behavior differences in masturbation and oral sex (i.e., 12% and 11% respectively). However, only one factor, age, was marginally related to IPCSS-sexting difference scores. Thus, the difference between one's perception of an "average" student's behavior and one's own behavior also depends on the specific behavior being assessed.

Despite these differences, both participant age and sex were consistently moderately or significantly related to one's IPCSS-actual behavior difference score. With age being predictive of 5 of the 6 difference scores, findings suggested that older participants reported greater differences between their individual perceptions of others and their own behavior. This may suggest that older participants used themselves as less

of a reference when perceiving the “average” student’s behavior than younger participants. Perhaps greater exposure to the college culture makes older students more aware of what their peers are actually doing, thus making older students’ estimations of their peers more independent of their personal behavior.

Additionally, older students may be demonstrating a greater “better than average effect” (Ross & Bowen, 2010) than younger students when estimating peer behavior. Perhaps as students age, they view themselves as “better” than the “average” student, thereby indicating more or less sexual behavior than the “average” student, increasing the difference between IPCSS and their own behavior.

Lastly, this finding may be explained as an effect of developmental maturation. Older students, perhaps out of greater experience or growing comfort with their sexual selves, may have been more comfortable indicating or acknowledging that they are different from the “average” college student. Other factors predictive of the IPCSS-behavior difference, committed relationship status (i.e., oral sex and intercourse) and greater sexual knowledge (i.e., aggregate behavior) are also potentially associated with greater maturation. From a developmental perspective, maintaining a committed relationship is perhaps indicative of greater maturity than remaining single. Similarly, greater sexual knowledge is likely associated with a greater sexual and intellectual maturity.

In addition to age, participant sex was also predictive of 5 of the 6 IPCSS-behavior difference scores. For all, identifying as male was more predictive of greater differences. This potentially represents a greater ease or comfort for males to use themselves as less of a reference when estimating peer behavior. This finding may also

indicate that, in the current collegiate culture, males may experience less pressure to conform to the societal standard. As sexual scripts suggest, women are under greater pressure to maintain appearances to combat the risk of earning a reputation of being overly sexual (Wiederman, 2005). Perhaps men are less pressured to conform to or report according to the perceived “average” behavior of their peers.

Also at play may be the traditional sexual script that men are highly and consistently sexually engaged (Masters et al., 2013; Weiderman, 2005). Thus, in reference to their own behavior, male participants may have expected that their peers must engage more sexually than they do, depending on how they view themselves in relation to this sexual script. Conversely, male participants may have felt they were “better” than the “average” male according to the traditional script and therefore reported the “average” male had less sexual engagement compared to their own. With either interpretation of this sexual script, males may have used it to justify reporting greater IPCSS-actual behavior differences.

Regarding the individual dispositions the researcher assessed, only participant agreeableness was significantly predictive of the IPCSS-actual behavior difference (i.e., aggregate engagement, intercourse, and receiving oral sex). Consistently and not unexpectedly, lower agreeableness predicted a greater difference between one’s perception of the cultural script and one’s own behavior. The less agreeable an individual, the more likely they were to indicate being different than their peers. No other participant personality factors or individual dispositions were predictive of IPCSS-actual behavior difference scores.

Similarly, of the sex-related measures, sexual knowledge was only moderately predictive of one of the IPCSS-behavior differences (i.e., aggregate engagement). This suggests that one's factual or familial associations and experiences related to sex largely do not relate to the difference between participants' perceptions of their peers' and their report of their own sexual behavior.

### **Factors Contributing to CSS-Actual Behavior Congruence: Exploratory Analyses**

Hypothesis 5 investigated the participant factors that relate to the difference between CSS and actual behavior. CSS were matched with the sex of the participant for analyses. Explorations across the 6 IPCSS-actual behavior difference scores indicated that selected participant factors explained between 1% and 24% of the variance. See Table 7 for specific results.

Hypothesis 5a investigated the CSS-actual aggregate engagement differences. Participant sex, agreeableness, and sexual knowledge explained 7% of the variance in difference scores. Greater differences were associated with being male and with lower agreeableness. Greater sex knowledge was marginally predictive of greater CSS-aggregate engagement differences.

Exploring CSS-actual behavior difference scores for intercourse, results of Hypothesis 5b indicated participant age, sex, and agreeableness were significantly predictive. Older participants, males, and less agreeable participants indicated greater differences between CSS and actual behavior for intercourse. Being in a committed relationship was marginally predictive of greater differences as well.

Hypothesis 5c examined CSS-actual behavior differences for number of partners. Results indicated 5 factors combined to explain 24% of the variance in difference scores.

See Table 7 for specific factors. Of these, being male was a significant predictor of greater difference scores. Greater faith salience and less extraversion were marginally predictive of greater CSS-behavior differences regarding number of partners.

For Hypothesis 5d, both age and sex were significantly predictive of CSS-actual behavior difference scores for masturbation, explaining 17% of the variance. Older participants and male participants indicated greater differences in CSS-behavior scores.

Results for Hypothesis 5e indicated that participant age, sex, and agreeableness were significantly predictive of CSS-actual behavior differences for receiving oral sex with 10% of the variance explained. Older participants, males, and those with lower agreeableness indicated greater differences between the overall CSS and one's own behavior. Hypothesis 5f investigated factors related to the CSS-actual behavior difference for sexting. No significant factors predicted the difference between CSS and sexting scores.

Taken together, results for Hypothesis 5 suggest that the factors selected were generally more predictive of CSS-behavior difference scores than they were of IPCSS-behavior (i.e., Hypothesis 4) or IPCSS-CSS (i.e., Hypothesis 3) difference scores (i.e., intercourse, intercourse partners, masturbation). This is likely related to the stable nature of CSS for all participants. The amount of variance explained in CSS-behavior differences was relatively consistent for both aggregate behavior and oral sex. For aggregate behavior, the selected factors explained 7% of the variance in CSS-behavior differences when collapsing across the 15 selected sexual behaviors. Despite these aggregated findings, behavior-specific variability emerged as well.

Generally, compared with IPCSS-behavior differences (i.e., Hypothesis 4), CSS-behavior differences were related to similar factors for aggregate behavior, intercourse, masturbation, and receiving oral sex. No factors were significantly related to CSS-behavior differences for sexting. This finding, considered alongside the lack of variability in CSS across participants, suggests that sexting represents a sexual behavior that is unique from the other individual behaviors discussed in this study. Perhaps due to the relatively new and more complex technological considerations associated with it, the relationship between one's sexting behavior and the larger, collective script was unrelated to participant's demographic, individual dispositional, or sex-related variables. Further investigation is necessary to uncover what factors may influence the relationship between sexting and cultural sexual scripts.

Contrarily, the selected factors explained almost a quarter of the variance in CSS-actual number of partners difference scores. Different factors (i.e., extraversion and faith salience) were related to these differences compared to previous analyses. This suggests that one's reported number of intercourse partners has a different relationship to the collective script than the other behavioral variables selected. The nature of the recall of one's number of sexual partners may have attributed to this unique relationship. Recalling one's number of past partners was potentially easier for students to estimate, as it was potentially a smaller number than the other variables assessed (i.e., lifetime masturbation).

Specific results also suggest this particular sexual construct was more susceptible to individual dispositions than the others. However, unlike participant's IPCSS, CSS were not subject to specific self-referential biases. Thus CSS-differences are more likely

attributable to one's report of his or her own behavior, not the CSS. For example, more introverted students likely reported having had fewer sexual partners compared to the collective expectation, perhaps due to their being more socially withdrawn from others, making them less likely to have had as many partners as the more extraverted collective. Commensurately, the opposite could also explain this relationship: more extroverted students may have reported having more sexual partners than collective scripts suggested thus contributing to greater CSS-actual behavior differences as well.

One's faith salience was also uniquely predictive of one's CSS-number of partners difference score. Greater differences were associated with greater faith salience. This suggests that, compared to the collective script, students with high or low faith salience respectively, reported lower or higher numbers of sex partners than expected according to the cultural norm. Interestingly, number of sexual partners was the only CSS-behavior difference associated with faith salience. This indicates that faith salience may have a greater influence on how many people participants engage with sexually not necessarily the amount of behavior in which they have sexually engaged in their lifetime (i.e., aggregate behavior, intercourse, masturbation, oral sex, and sexting).

Despite the unique contributions of extraversion and faith salience to CSS-behavior differences for number of partners, the same general factors were implicated more generally in Hypothesis 5 as in Hypothesis 4. While relationship status was only predictive of one CSS-behavior difference, participant age, sex, and agreeableness were again repeatedly predictive. Both age and agreeableness, predictive of half of CSS-behavior differences, suggest that older and less agreeable students reported behavioral engagement that either more or less than the collective norm would predict. Participant

sex was predictive in all but one (i.e., sexting) CSS-behavior difference score. Again, males' reports of behavior were more different from the collective sexual script than females' reports.

As CSS-behavior differences were less likely attributable to self-as-reference cues, these patterns likely represent key individual or cultural factors associated with congruence with the CSS. Older students have likely accumulated more lifetime engagement than younger students across behaviors. Less agreeable students have likely felt less pressure to conform to CSS, or perhaps have experienced less engagement in select behaviors (i.e., aggregate behavior, intercourse, and receiving oral sex) as those behaviors are largely partnered. Less agreeable students may be less successful in partnered sexual engagement compared to their more agreeable peers.

Lastly, the greater differences between CSS and actual behavior for males may be attributed to males experiencing fewer societal pressures to conform to standards, as previously mentioned, or the CSS may potentially be biased by the inclusion of the expectations of female students. Depending on females' expectations for the "average" male, the CSS could potentially be biased high or low compared to actual engagement. Interestingly, no other participant demographic, personality, or sex-related variables were predictive of CSS-actual behavior differences.

### **General Discussion**

The culturally available messages regarding sex and sexual engagement – cultural sexual scripts – help to guide an individual's behavior in sexual situations (Masters et al., 2013). College students, experiencing what popular media often portrays as "open season" in terms of exploring one's sexuality, are likely heavily influenced by the cultural

sexual scripts they interact with on a regular basis. The current research explored various levels of these cultural sexual scripts and how they interact with college students' personal sexual behavior and perceptions of others' behavior.

Findings suggest that current sexual scripts still utilize the sex differences suggested by traditional sexual scripts, rooted in traditional sex roles. Despite a general lack of sex differences in actual behavior, students still largely perceived that sex differences existed when estimating their peers' sexual engagement. However, supporting similar findings in recent sexual script literature, current results suggest traditional sexual scripts may not be as universal as they once were (Dworkin & O'Sullivan, 2005, Ortiz-Torres et al., 2003; Seal & Ehrhardt, 2003). Aggregate investigations of current sexual scripts across 15 sexual behaviors indicated that no sex differences existed. This suggests that the current cultural sexual scripts of college students include deviations from traditional sex-based expectations.

The researcher then explored cultural sexual scripts on two distinct levels: the collective sexual script (CSS) of the current college culture and one's individual perception of the collective sexual script (IPCSS). When considering the relationship between these two levels of collegiate cultural sexual scripts, the researcher considered the influence of various demographic, dispositional, and sex-related factors. Factors explained very little of the variance between IPCSS and CSS, suggesting the relationship between these two cultural scripts is not only complicated but highly variable depending on the individual and on the specific behavioral script in question.

When considering the relationship between cultural scripts and sexual behavior, not surprisingly, individual perceptions of these scripts (IPCSS) were significantly more

closely related to one's reported sexual behavior than the collective script (CSS). When considering the engagement of others, college students likely considered their own engagement as reference (Baumeister, 2011), resulting in smaller differences between IPCSS and actual engagement than CSS and actual engagement.

The researcher also explored the potential influence of individual demographic, dispositional, and sex-related factors on the relationship between both levels of cultural sexual scripts and reported actual engagement. Again, only a small amount of variance was able to be explained by the 12 selected factors. Importantly, however, the relationship between specific factors and script-behavior differences varied depending on the behavioral variable being assessed, more so than the level of cultural script being assessed. For example, the selected factors largely could not explain the variance between cultural sexual scripts and actual sexting behaviors. When examining results associated with the other behavioral scripts explored, several generally predictive factors emerged across scripts.

In terms of demographic factors (i.e., age, sex, and relationship status), participant age and sex were predictive of greater differences between both IPCSS and behavior and CSS and behavior. Older participants indicated greater differences between scripts and behavior, perhaps reflecting greater sexual engagement over time, when compared to younger students. Additionally, such differences may reflect a developmental maturity associated with less concern for adhering to cultural pressures to follow expectations and norms. Sexual script research suggests that scripts are especially useful and salient during novel situations (Frith & Kitzinger, 2001; Wiederman, 2005); perhaps older, more experienced students no longer rely on such scripts as readily as younger students might.

Similarly, male participants indicated greater script-behavior differences than female participants. Current research investigating sex-differences in sexual activity, however, indicates that male college students are largely not engaging in greater sexual activity than female students (de St. Aubin & Yadlosky, 2013). This suggests that these observed script-behavior differences are driven by students' perceptions of male behavior and not differences between males and females in terms of activity. Males may generally experience less pressure or concern for pressure than females regarding adherence to these scripts and therefore more actively deviate from them. College males also potentially demonstrated greater variability in their sexual engagement than females, which would also result in greater differences between engagement and scripts overall.

Regarding individual dispositional factors (i.e., personality traits, faith salience, and gender nonconformity), participant agreeableness was the only factor repeatedly predictive of script-behavior differences. Those with lower agreeableness scores generally indicated greater differences, especially for partnered behavior (i.e., aggregate behavior, intercourse, and oral sex; not masturbation). This finding largely indicates that, not surprisingly, less agreeable students are generally less concerned or feel less pressure to adhere to cultural norms or expectations, such as cultural sexual scripts. Interestingly, extraversion and emotional stability, both often associated with sexual behavior in the existing literature (Barnes, Malamuth, & Check, 1984), were largely unrelated to the relationships between levels of cultural sexual scripts and behavior.

Further, no additional sex-related factors (i.e., parental attitudes/comfort regarding and sexual knowledge) were generally predictive of script-behavior differences. In fact, parental sexual attitudes and comfort did not contribute to explaining any of the variance

in any of the difference scores examined in this study. While previous research has linked parental factors to the sexual decision making of adolescents and young adults (Ragsdale et al., 2014; Yip et al., 2013), the current findings suggest they are likely unrelated to college students sexual decision making as they relate to cultural sexual scripts. Other factors, namely, age, sex, and agreeableness, were significantly more important in the rectification of cultural sexual scripts with student behavior than sex-related factors and notably parents' attitudes and comfort around sex.

### **Limitations and Future Directions**

Using empirical methods, the current study explored the cultural sexual scripts that college students regularly engage with and the relationships between these scripts and actual student sexual behavior. However, this investigation was limited in several ways. The open-ended self-report of student sexual behavior generated extreme variability in responses. This required extensive screening and cleaning of data prior to running analyses. The resulting sexual report data represented physically and mathematically feasible sexual engagement but often included high variability within behavioral variables. Additionally, the prompts used to elicit this data required participants to estimate their own and peers' lifetime engagement across 16 different sexual behaviors. Lifetime engagement was selected to avoid biasing results according to one's current relationship status. However, estimating lifetime engagement in some of the behaviors (e.g., masturbation) was likely difficult for participants and contributed to the variability of behavioral report data.

Additionally, when calculating difference scores (i.e., CSS-IPCSS, IPCSS-actual behavior, CSS-actual behavior), the researcher utilized the absolute value of results in an

attempt to simplify findings regarding preliminary explorations into the relations between cultural sexual scripts and related factors. However, this process eliminated the possibility for the researcher to distinguish the general direction of differences within the sample. Exploratory analyses of related factors likewise could not determine whether IPCSS suggested more or less engagement than CSS nor whether cultural sexual scripts predicted more or less engagement than students actually reported. Leaving difference scores directional (i.e., positive values indicating less engagement and negative values indicating greater engagement) would have provided the researcher with more information regarding the specific nature of relationships between levels of cultural scripts and between cultural scripts and behavior.

Results of this work suggest that traditional sexual scripts are not universally present in the current sexual scripts of this sample. However, all analyses were cross-sectional and therefore cannot address temporal changes in these scripts. Conclusions and observations relied upon comparison to previous cross-sectional research exploring traditional sexual scripts in their samples. Longitudinal exploration of these scripts would more directly address the specific nature of these inferred changes over time.

Lastly, the selected factors for exploring the relationships between CSS-IPCSS, IPCSS-actual behavior, and CSS-actual behavior were not as highly related to difference scores as originally predicted. The researcher conducted linear regressions despite a lack of medium or large preliminary correlations. This limited the amount of variance that could have been explained in difference scores. Future researchers should consider additional individual factors when trying to better understand these differences.

More specifically, researchers should consider including a measure of one's sexual engagement, as engagement in one behavior likely influences engagement in another. With this in mind, future research in this area should consider utilizing a path analysis approach to data analysis, as outcome and predictor variables are likely significantly related to one another. Within such analyses, researchers could also explore more specific situational factors that may be associated with engagement in each behavior to more fully understand the relationship between cultural sexual scripts and situational variables (e.g., comfort with partner, nature of relationship with partner, initiator considerations, preceding behaviors, behaviors following engagement, etc.).

Additionally, to better understand the complicated relationship between college students and the college culture, future explorations should assess additional cultural considerations and interpersonal factors that directly relate to how one interacts with her or his culture. This could potentially include assessing social roles and group membership, additional personality factors (e.g., self-monitoring tendencies, communal versus agentic tendencies, etc.), attitudes toward oneself (e.g., self-esteem, internal versus external self-awareness, etc.) and various aspects of the college culture itself (e.g., promiscuity, sex-as-risk versus sex-as-pleasure perspectives, etc.).

Lastly, future investigations into the relationship between sexual scripts and college sexual behavior should include assessment of interpersonal scripts as well. Better understanding of the relationship between cultural sexual scripts, both the collective and individual perceptions of them, and one's personal script for him or herself offers additional important information about the sexual decision making of students.

## Implications

Paired with the existing literature, current findings highlight the flexibility and likely shifting nature of college students' current sexual scripts. This makes them a potential place of intervention in an attempt to promote healthy sexual engagement in the college population. Current results also indicated that the relationships between levels of cultural scripts and cultural scripts and behaviors were highly dependent on the behavior in question as well as the individual. This would make interventions attempting to alter these relationships that specifically target one of the demographic, dispositional, or sex-related factors assessed in the current research difficult and likely ineffective.

This does suggest, however, that interventions and education programming targeting cultural sexual scripts should target individual perceptions of these scripts, as opposed to more collective scripts, as IPCSS were more directly associated with behavior than the CSS. In practice, this may require educators and interventionists to employ more of a bottom-up approach, encouraging students to apply information and data to their own lives through more student-driven and engaging programming.

Additionally, the current research demonstrated that existing cultural scripts do not accurately reflect student engagement, especially with regard to expected sex differences. This suggests that students perceive that men and women adhere more to traditional gender roles than they actually do. This could foster pressure for men and women to act according to potentially oppressive gender roles, which can lead to dissatisfaction, miscommunication between partners, and potentially increase sexual risk for students. To address this discrepancy, educators and interventionists may consider a

more top-down approach disseminating research similar to the current work that more accurately depicts the current sexual culture and engagement of students on college campus.

While educators and interventionists may directly apply the findings of the current research to programming to promote sexual health and reduce sexual risk on college campuses, researchers in the field must continue to explore the effects of cultural dynamics of the college world on the sexuality of students. A better understanding of current, cultural sexual scripts on various levels provides a foundation upon which to build. Future explorations exploring nuances between sexual scripts on both cultural and interpersonal levels will provide a greater understanding of the sexual decision making of college students that more fully appreciates the highly influential college culture that students are navigating both outside of and behind closed dorm room doors.

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## Appendix A

### MARQUETTE UNIVERSITY AGREEMENT OF CONSENT FOR RESEARCH PARTICIPANTS Student Sexuality: Attitudes, Knowledge, and Behavior Ed de St. Aubin - Psychology Department

You have been invited to participate in this research study. Before you agree to participate, it is important that you read and understand the following information. Participation is completely voluntary. Please ask questions about anything you do not understand before deciding whether or not to participate. Whether or not you choose to participate in this study will have no impact on your course standing with the exception of extra credit points if you are enrolled in Ed de St. Aubin's Human Sexuality course. You must be a full time Marquette undergraduate age 18-25 to complete this survey.

**PURPOSE:** The purpose of this research study is to investigate the sexual behaviors, attitudes, and knowledge of Marquette students. You will be one of approximately 150 participants in this research study.

**PROCEDURES:** Participation in this study consists of completing an online survey. For those of you earning course points for completing this, you will be directed to a second Internet site at the end of this survey and asked to supply your name. Your professor, Ed de St. Aubin, will not have access to that second site. A research team member will record names from that site so that you will receive course points.

**DURATION:** The complete survey requires approximately 50 minutes to complete.

**RISKS:** The risks associated with participation in this study are minimal. The questions regard personal and sometimes sensitive matters that may cause some discomfort. You may skip questions that make you uncomfortable or discontinue participation at any time without penalty.

**BENEFITS:** There are no large and direct benefits to participants. The knowledge gained will help us better understand the sexual lives of students.

**CONFIDENTIALITY:** All information you reveal in this study will be kept confidential. All your data will be assigned an arbitrary code number rather than using your name or other information that could identify you as an individual. When the results of the study are published, you will not be identified by name. The data will be stored in an encrypted file on Dr. Ed de St. Aubin's computer and will be destroyed when his employment with Marquette University is terminated. Your research records may be inspected by the Marquette University Institutional Review Board or its designees.

**COMPENSATION:** There is no financial gain associated with your participation. Students enrolled in Ed de St. Aubin's Human Sexuality course will earn course points. These points may also be earned by those not participating in this study by completing the assignments outlined in the syllabus.

**VOLUNTARY NATURE OF PARTICIPATION:** Participating in this study is completely voluntary and you may withdraw from the study and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

**CONTACT INFORMATION:** If you have any questions about this research project, you can contact Ed de St. Aubin at (414) 288-2143. If you have questions or concerns about your rights as a research participant, you can contact Marquette University's Office of Research Compliance at (414) 288-7570.

**BY COMPLETING THIS SURVEY I ACKNOWLEDGE THAT I HAVE HAD THE OPPORTUNITY TO READ THIS CONSENT FORM, ASK QUESTIONS ABOUT THE RESEARCH PROJECT AND AM PREPARED TO PARTICIPATE IN THIS PROJECT.**

## Appendix B

1. Sex:  
Male  
Female  
Other (please specify):
2. Age:
3. Ethnicity:  
American Indian/Alaskan Native  
African-American  
Caucasian  
Hispanic  
Asian/Pacific Islander  
Other (please specify):
4. Sexual Orientation:  
Heterosexual  
Bisexual  
Gay/Lesbian  
Other (please specify):
5. Relationship Status:  
Single  
Causal Relationship  
Committed Relationship  
Other (please specify):

## Appendix C

1. At what AGE was the FIRST TIME you remember?
2. With how many different PARTNERS?
3. Estimate HOW MANY TIMES you have done this in your LIFETIME.
4. How many times have you done this in the PAST 10 DAYS?
5. How often do you DESIRE to do this in a TYPICAL MONTH?
6. The average FEMALE student has done this HOW MANY TIMES?
7. The average FEMALE student has done this with how many PARTNERS?
8. The average MALE student has done this HOW MANY TIMES?
9. The average MALE student has done this with how many PARTNERS?

## Appendix D

Using the following response options:

Strongly disagree	Moderately disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Moderately agree	Strongly agree
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I see myself as:

1. Extraverted, enthusiastic.
2. Critical, quarrelsome.
3. Dependable, self-disciplined.
4. Anxious, easily upset.
5. Open to new experiences, complex.
6. Reserved, quiet.
7. Sympathetic, warm.
8. Disorganized, careless.
9. Calm, emotionally stable.
10. Conventional, uncreative.

## Appendix E

Using the following response options:

Strongly disagree	Moderately disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Moderately agree	Strongly agree
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Please carefully read the following statement and then choose the response that best reflects faith in your life. Faith here includes religiosity, spirituality, and any meditative practices.

1. I find that my ideas on faith have a considerable influence on my views in other areas.
2. My ideas about faith are one of the most important parts of my philosophy of life.
3. I very often think about matters relating to faith.
4. If my ideas about faith were different, I believe that my way of life would be very different.
5. Believing as I do about faith is important to being the kind of person I want to be.
6. Faith is a subject in which I am not particularly interested.

## Appendix F

Using the following response options:

Strongly align	Moderately align	Slightly align	Neutral	Slightly not align	Moderately not align	Strongly not align
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Please indicate how your opinions align with the following statements.

1. To what extent do your BEHAVIORS align with U.S. conventions surrounding gender roles (meaning that men are to act masculine and women feminine)?
2. To what extent does your PHYSICAL PRESENTATION (clothing, hairstyle, makeup, etc.) align with U.S. conventions surrounding gender roles?
3. To what extent do your ATTITUDES align with U.S. conventions surrounding gender roles?

## Appendix G

Using the following response options:

Extreme discomfort	Moderate discomfort	Neither comfort nor discomfort	Moderate comfort	Extreme comfort
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Please respond to the following statements

1. In general, over the course of your childhood, please rate the degree of comfort YOU FELT in talking about sexual matters with your MOTHER:
2. In general, over the course of your childhood, please rate the degree of comfort YOU FELT in talking about sexual matters with your FATHER:
3. While you were growing up, please rate the degree of comfort you think your MOTHER FELT when talking about sexuality:
4. While you were growing up, please rate the degree of comfort you think your FATHER FELT when talking about sexuality:

Using the following response options:

Extreme discomfort	Moderate discomfort	Neither comfort nor discomfort	Moderate comfort	Extreme comfort
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1. How would you characterize your MOTHER'S ATTITUDE toward sexuality when you were growing up?
2. How would you characterize your FATHER'S ATTITUDE toward sexuality when you were growing up?

## Appendix H

1. \_\_\_\_\_ is the MOST common way women achieve arousal and orgasm when masturbating.
  - a. Clitoral stimulation
  - b. Vaginal penetration
  - c. Contracting the PC muscles
  - d. Breast stimulation
  
2. The vas deferens
  - a. Is a tube through which urine passes from the bladder to the outside of the body.
  - b. Facilitate blood flow during an erection.
  - c. Is the tube that is severed in a vasectomy.
  - d. Is where sperm production takes place.
  
3. Which statement is TRUE regarding masturbation among married and partnered persons?
  - a. Masturbation is always a sign that there is something wrong in the relationship.
  - b. Masturbation rates decrease sharply during the first ten years of togetherness.
  - c. Masturbation occurs more often among those who have partnered sex more frequently.
  - d. Masturbation always occurs more often among couples who have partnered sex less frequently.
  
4. Tantric sex
  - a. Emphasizes spiritual enlightenment.
  - b. Was developed in Africa.
  - c. Is done in temples.
  - d. Should be done while fasting.
  
5. Current research shows that the children of gay and lesbian parents
  - a. Are likely to grow up to be a heterosexual.
  - b. Show more problem behaviors if the child is raised by gay parents than lesbian parent
  - c. Are more likely to have confused gender identity than children of heterosexuals.
  - d. Have reduced self-esteem compared to children of heterosexuals.

6. Oral contraceptives were first available in this country
  - a. At the turn of the century.
  - b. In 1920.
  - c. In 1945.
  - d. In 1960.
7. Most practicing Catholics in the United States are
  - a. Likely abstain from contraceptive use.
  - b. Twice as likely as non-Catholics to use contraception.
  - c. Likely to use some kind of artificial contraception
  - d. Much less likely to use contraception than Protestants.
8. Your friend asks you how the pill works to prevent pregnancy. Which of the following would be your BEST answer?
  - a. They work by preventing the production of hypothalamic hormones.
  - b. They work by preventing the maturation of eggs.
  - c. They work by preventing ovulation and changing the lining of the uterus to make it inhospitable.
  - d. They work by stopping flow of cervical mucus and by preventing ovulation.
9. Which of the following increased the possibility of premature ejaculation?
  - a. Ejaculating more frequently.
  - b. Using the man-above intercourse position.
  - c. Starting and stopping stimulation.
  - d. Communicating during coitus.
10. Which of the following statements regarding HIV is FALSE?
  - a. HIV has been found in the vaginal secretions, blood, semen saliva, urine and breast milk of infected individuals.
  - b. Reported cases of heterosexually transmitted HIV have been increasing in recent years.
  - c. The incidence of AIDS is increasing more rapidly among men than women in the United States.
  - d. Symptoms of HIV infection are commonly associated with other types of illnesses.