

Harry and Sally Revisited: The Influence of Spirituality and Education on Sexual Tension in Cross-Sex Friendships in Secular and Christian Universities

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A sample of 406 subjects completed a questionnaire testing the influence of personal spirituality, education and several other factors on sexual tension in cross-sex friendships (CSF Tension). The subjects included 143 students from a Christian university (CU), 137 from a secular junior college (JC), and 127 non-students (NS). The primary criterion variable was the amount of CSF Tension experienced: Each subject rated to what extent sexual tension made friendship difficult due to different characteristics (e.g., he/she is physically attractive, dressed seductively) of 16 hypothetical friendships. A measure of sexuality—a composite of 12 questions adapted from the Self-Assessment Survey—assessed sexual activity, values, and ideation. Other predictors included neuroticism, openness to experience, extraversion, and demographics. JC students rated significantly more liberal than CU students on all 12 of the sexuality questions but no CSF-Tension differences were found for 15 of the 16 hypothetical CSF comparisons. JC students also rated two standard deviations lower on spirituality than CU students. Also, NS differed from students by being older, more spiritual, more educated, less involved in sexual activities, and experienced less CSF Tension. For the entire sample, spirituality was associated with sharply lower levels of sexual activities and ideation ($r = -.601$) and significantly lower levels of CSF Tension. The influence of education was similar to that of spirituality but not as robust.

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INTRODUCTION

Following the 1989 release of the hit comedy, *When Harry Met Sally* starring Billy Crystal and Meg Ryan, social scientists began to explore the validity of Harry's stated position: "Men and women can't be friends because the sex part always gets in the way" (Ephron & Reiner, 1989). Moments later, in the same conversation Harry amends the original position with the comment, "No man can be friends with a woman that he finds attractive; he always wants to have sex with her." Then, throughout the film, Harry presents several adaptations of his original position. In one sense, Harry's treatment of sexual tension in cross-sex friendships parallels the research sequence. First, identify a basic reality: in this case, sexual tension is present in some cross-sex friendships (e.g., Kaplan & Keys, 1997; Chatterjee, 2001; Halatsis & Christakis, 2009) and then explore variations of the basic statement such as: Married people (Elsesser & Peplau, 2006) and older people (Femlee & Muraco, 2009) have lower levels of sexual tension; whereas men and those who have shared previous romantic or sexual involvement have higher levels of sexual tension (Kaplan & Keys, 1997).

The present study considers issues in this topic that have not been addressed in prior research. The primary twist is the inclusion of personal spirituality and education as predictor variables. For the more than 900 Christian colleges and universities in the United States and Canada (Council for Christian Colleges and Universities [CCCCU], 2003; Campus Starter, 2007) and the additional 5 million students who attend Christian elementary and secondary schools (Council for American Private Education [CAPE], 2012) (not to mention the youth programs of many churches) the topic is keenly relevant. Most Christian institutions encourage more conservative sexual values as consistent with the teachings of the Bible. The implicit (and often explicit) assumption is that conservative sexual values will result in more successful relationships. However, the literature is thin on whether students at these institutions actually observe more conservative sexual practices, and literature is non-existent on the influence of such a perspective on sexual tension in cross-sex friendships. The effect of personal spirituality is explored in three different settings: a sample from a liberal arts Christian university, a sample from a secular college, and a sample of non-students.

The influence of education is also explored. Sociological research has found that those with more education (and the strongly correlated higher IQs) tend to have lower levels of fertility (e.g., Lynn, 2004; Jensen, 1998; Vining, 1995; Cattell, 1974; Osborn & Bajema, 1972). Research with adolescents has shown that more academically successful teens are less likely to have sex or to be involved in other sex-related activities (e.g., Halpern et al., 2000; Miller & Moore, 1990; Jensen, 1998). This study explores whether level of education is also associated with lower levels of sexual ideation, sexual practice, and lower levels of sexual tension in cross-sex friendships. In

addition, the study considers many issues explored by other researchers in an effort to confirm findings where there is agreement and add clarity on issues where findings are contradictory.

A central construct of the present study and the primary dependent variable is the measure of “sexual tension in cross-sex friendships.” For simplicity we call this “CSF Tension.” The CSF-Tension variable lists characteristics of 16 possible cross-sex friendships, such as: The other person is physically attractive, sexually appealing, dressed seductively, shares similar passionate interests, married, biologically related, etc. The 16 characteristics were selected from personal qualities widely employed in the cross-sex-friendship literature (e.g., Chaterjee, 2001; Femlee & Muraco, 2009; Hand & Furman, 2008; Kaplan & Keys, 1997; Schneider & Kenny, 2000).

A second major construct, used as both a predictor and criterion variable, is levels of sexual ideation, practice, and values. Twelve questions assess each subject’s own activities or ideations addressing such issues as dressing seductively, discomfort due to sexual feelings, masturbation, viewing pornography, sexual activity, sexual values and others. The composite measure (the mean of these items) is called “Sexuality” with the “S” capitalized. Prior research provides abundant evidence linking sexual practice with CSF Tension (e.g., Chaterjee, 2001; Coutinho, 2007; Guerrero & Chavez, 2005).

RATIONALE, EXPERIMENTAL QUESTIONS, AND REVIEW OF RELEVANT LITERATURE

Previous studies dealing with cross-sex friendships have explored several issues not addressed in the present study. These studies have focused on the dynamics and benefits of cross-sex friendships (e.g., Reeder, 2003; Gilmore, 1995; Morry, Reich, & Kito, 2010; Grover, Nangle, Serwik, & Zeff, 2007) and contrasts between CSFs and same-sex friendships (e.g., Baumgarte & Nelson, 2009; Johnson et al., 2007; Lenton & Webber, 2006; McBride, 1997; O’Meara, 1989). The present study explores sexual ideation and practices (Sexuality) and CSF Tension between students of secular and Christian colleges and non-students, and the overall effect of personal spirituality (based on the George-Mabb-Walsh Spirituality Scale) and education (years of schooling or degrees obtained) on Sexuality and CSF Tension.

Influence of Personal Spirituality and Contrast of Christian Versus Secular Campuses

The values, practices, and experiences of students at a Christian campus that contrast with the values, practices, and experiences of students on a secular campus have not been addressed in the CSF literature. With no prior studies

to cite, this study looks at commonly held views in the field. Public relations departments at Christian universities in their efforts to attract students usually cite two major differences between Christian and secular campuses. First, they claim a higher spirituality of their students and a higher overall spiritual atmosphere on the campus. Second, for the protective parents of potential students, they claim more conservative sexual values and practices of their students. These claims are typically made with only anecdotal evidence or no evidence at all. While research cannot test something as vague as an “overall spiritual atmosphere”, it can test whether the spirituality of students is higher and whether they hold to more conservative sexual values and practices. The central issue of the study—what factors influence CSF Tension—is rarely even considered. The experimental question: Do students from Christian and secular campuses differ in spirituality, sexual ideation/practice, ctice, and level of CSF Tension?

The influence of spirituality on sexual values and practices and its influence on CSF Tension is another area that has not been addressed in the CSF literature. The experimental question: Regardless of student or non-student status, does Spirituality have an influence on Sexual ideation/practice and on CSF Tension?

An important related question: Which instrument should be used to measure Spirituality? With a large ($N=406$) and diverse set of participants, it is necessary to employ an instrument that is not related to any particular denomination, broad religious classification, and even atheists and agnostics can complete the questionnaire without feeling irritated or marginalized. The selected instrument was the George-Mabb-Walsh Spirituality Scale (1994). The test has been administered over the years to thousands of subjects from every type of denomination or spiritual background, been employed in a number of publications (e.g., George et al., 2007; George et al., 2008; George & George, 2009), and exhibits high internal consistency with alpha values over many studies uniformly in the .90s. This test is described in greater detail in the Method section.

But why is “personal spirituality” employed as a key variable rather than the more frequently used “religiosity?” The question dates back half a century to the work of Allport and Ross (1967) when they contrasted internal and external religiousness. Internal religiousness was described as a “religion of the heart” and a deeply held and adhered to spiritual perspective. External religiousness was more associated with religious practices and the slightly Machiavellian concept of use of religion to promote one’s own agenda. The George-Mabb-Walsh Spirituality Scale measures a construct similar to internal religiousness. None of the questions relate to church attendance, religious ritual or any particular set of religious beliefs. It was felt by the authors that personal spirituality, a more stable and deeply rooted construct, would have greater influence on relevant variables than religious beliefs or practices.

This research is frankly exploratory. No published, research-based theories exist that suggest probable outcomes. It is hoped that this study and future studies will provide a perspective that allow theories to develop. For this study, the characteristics of the initiator and the recipient in a CSF are placed into a Harold-Kelley-style 2×2 matrix, based on the theory of dyadic interdependence (1978), as a possible step in that direction. Because the research is exploratory, the design adheres to more stringent statistical standards—an alpha value of .01 rather than the more traditional .05 is required to attract attention; a value less than .001 to generate actual interest.

Education

It is likely that level of education has been used as a demographic variable in CSF studies but no results of interest have been reported. As mentioned earlier, sociological research has found better educated and more intelligent people to be less fertile. Halpern, and colleagues (2000) in a study of 12,000 high school students, found that grade point average (GPA, a strong correlate of academic success) among both young men and women was significantly correlated with lower levels of sexual intercourse and other forms of sexual/romantic activities. Do similar patterns apply to undergraduates and non-students? Both sources suggest that a higher level of education may be associated with lower levels of sexual activities and ideation. The experimental question: “Does level of education influence sexual ideation/practice, and level of CSF Tension?”

Other Issues Addressed in the Present Study

For a number of areas this study explores issues that parallel topics addressed in prior studies. The following text identifies the central points of these studies, provide references, and indicate on Table 1 whether outcomes of the present study support, refute, or add clarity.

Research has found that sexual tension is present in many CSFs (Chatterjee, 2001; Halatsis & Christakis, 2009; Harvey, 2003; Kaplan & Keys, 1997; Baumeister, Catanese, & Vohs, 2001; Monsour, Harvey, & Batty, 1997; Reeder, 1997; 2000). CSF Tension is more of a problem if there has been a shared romantic or sexual relationship in the past (Kaplan & Keys, 1997; McDougall & Hymel, 2007; Reeder, 1997; Schneider & Kenny, 2000). The duration of the relationship does not influence the amount of CSF Tension (Kaplan & Keys, 1997). Men experience more sexual interaction and sexual interest than women (Bleske, 2000; Kaplan & Keys, 1997; Koenig, Kirkpatrick, Lee, & Ketelaar, 2007). Men experience more CSF Tension (Kaplan & Keys, 1997). Neurotic people have more CSF Tension (Khanchandani & Durham, 2009; Cramer & Donachie, 1999). Women are more anxious/neurotic in the context of a CSF (Mahoney & Hetrick 1979). Older individuals tend to have less CSF Tension (Femlee &

TABLE 1 Support in the Present Study on Cross-Sex Friendship (CSF) for the Findings of Previous Studies

| Position supported by prior research | Present study: support/describe/refute | Statistics supporting | |
|---|--|-----------------------|------------|
| Sexual tension is present in many cross-sex friendships | Support | $t(405) = 33.17,$ | $p < .001$ |
| Men experience more sexual interest and activity than women | Support | $t(404) = -2.35,$ | $p = .016$ |
| Men experience more CSF tension than women | Weak support | $t(404) = -2.10,$ | $p = .037$ |
| 93% of undergraduates have at least one CS friend | 85% of undergraduates have at least one CS friend | | |
| Married people are less likely to have CS friends | Support | $t(404) = 5.50,$ | $p < .001$ |
| Older people tend to have less CSF Tension | Support | $r = -.280,$ | $p < .001$ |
| Absence of sexual tension increases the likelihood of cross-sex friends | Refute: No relationship between variables | $r = .012.$ | $p = .804$ |
| Less CSF tension if one does not press the other beyond their level of interest | Support | $t(405) = -7.52,$ | $p < .001$ |
| Greater CSF Tension if a romantic or sexual relationship in the past | Support | $t(405) = -11.54$ | $p < .001$ |
| Length of Relationship does not influence CSF tension | Refute: There is less CSF tension in relationships of greater duration | $t(405) = 6.60$ | $p < .001$ |
| Neurotic people have greater CSF tension | Support | $r = .127.$ | $p < .005$ |
| Women are found to be more anxious/neurotic in the context of CS friendships | Support | $t(404) = 4.75,$ | $p < .001$ |
| Greater sexual interest is associated with more CS friends | Support | $r = .203,$ | $p < .001$ |
| Influence of being attached (married, engaged or steady dating) on CSF tension with others; | No effect on CSF Tension if dating/engaged (2.79 vs. 2.61) | $t(305) = 1.45$ | $p = .148$ |
| contradictory results in past studies | Less CSF Tension if married (2.79 vs. 2.05) | $t(324) = 6.52,$ | $p < .001$ |

Muraco, 2009). Married people are less likely to have CSFs (Chatterjee, 2001; Elsesser & Peplau, 2006; Froemling, 2000). Within an undergraduate sample, 93% of subjects reported having at least one CSF (Horner, 1996). Greater sexual interest is associated with a greater number of CSFs (Koenig, Kirkpatrick, & Ketelaar, 2007). The absence of sexual tension increases the likelihood of CSFs (Chatterjee, 2001). CSFs are more successful if one of the partners does not press for more than the other partner desires (Coutinho, 2007).

Contradictory findings have characterized the influence of being married or in a committed romantic relationship on CSF Tension. One set of studies has found that CSF Tension is lower if you are currently attached (Fuhrman, Flannagan, & Motamoros, 2009; Khanchandani & Durham, 2009; Monsour et al., 1994). Several studies found the opposite, that is, when one is attached it increases the tensions and insecurities of an outside CSF (e.g., Kaplan & Keys, 1997; Lobel et al., 1994; Monsour et al., 1994; Wenger & Emmet, 2009).

METHOD

Participants

A sample of 406 subjects participated. This sample included 143 randomly selected students from a small, liberal arts, Christian university college; 136 students from a secular junior college, and 127 nonstudents. All participants lived or attended school in Central Alberta, Canada. A word concerning the two schools: The term *university college* in Canada depicts a school that offers 4-year degrees but not graduate programs. The junior college in question does offer primarily 2-year degrees but also offers a number of 4-year degrees in collaboration with the University of Calgary and the University of Alberta. As such, the two institutions are thought to be reasonably equivalent in terms of academic offerings and quality of students. For ease of reference, students from the Christian university college are designated “CU,” students from the junior college as “JC,” and non-students are designated “NS.”

Gender breakdown included 235 women (57%) and 171 men (43%). The ethnic composition of the group was 67% Caucasian, 14% Black (this group included no African Americans—the majority were from Canada, the Caribbean, or Africa), 8% Asian, 2% Hispanic and 9% other. The ratio of those who described themselves as Christian versus those who described themselves as agnostic, atheist, or “other” was 79% to 21%. For the CU, the ratio was 98% to 2%; for the JC, 56% to 44%; and for the NS group, 83% to 17%. Mean age of the students was 22.5 years; of the NS, 38.1.

Materials

Materials included the primary questionnaire: The questionnaire was a total of four pages (two pages, printed on both sides) in length. The first half-page

provided information about the sponsoring organization, a brief description of the study's rationale, assurance of confidentiality, informed consent and debriefing procedures, a description of the types of questions, and how to respond to any of the sex-related questions they might find to be intrusive.

The body of the survey included nine demographic questions, 27 questions assessing three measures from the Big 5 Personality Inventory (extroversion, neuroticism, openness to experience), 10 questions assessing spirituality, 12 questions dealing with sexual attitudes and practices, and 16 questions identifying characteristics of relationships where sexual urgency might be a problem. The survey concluded with space for general comments, an expression of thanks for participating, and instructions about how to acquire final results. Other materials included a $6\frac{1}{2}'' \times 9\frac{1}{2}''$ envelope to return the questionnaire, and $2'' \times 3''$ card for participants to include their e-mail if they desired results of the study.

Procedure

Students from an undergraduate research methods class (called "researchers") collected the bulk of the data. Three different methods for collecting data were used:

RANDOM SELECTION FROM THE CU

Subjects were selected randomly from the university database of current students. These names were distributed among the 12 researchers. The researchers approached each of these potential subjects individually with the request that they participate in the study. No incentive was offered except the promise to e-mail final results of the study if the student wished. Each student was given the envelope and was instructed to remove and read the instructions at the top of the questionnaire. They were then asked if they still wished to participate. Those who agreed (fewer than 2% refused) completed the questionnaire then returned the form and the $2'' \times 3''$ card sealed in the provided envelope to the researcher.

SELECTION OF SUBJECTS FROM THE JC

Random selection was not possible at the large (6000 students) community-based JC. Five researchers travelled to the JC and contacted potential subjects individually or in small groups in the library, cafeteria, and common study areas. All data were collected within 2 days. The method of request and return of the forms were identical to that used at the CU.

SELECTION OF NON-STUDENTS (NS)

Many non-students were acquired in a manner similar to the JC sample. Others were contacted in person, by telephone, or by e-mail with requests

similar to those made of other subjects. A small number of results from this group (4.1%) were returned as an e-mail attachment or by mail. For all three sets of subjects researchers were reminded to remain sensitive to the potentially uncomfortable subject matter. Due to this requirement, only one simple request was made. If there was any hesitation, the researchers never pushed further for participation. Finally, all data were entered and analyzed. Irregular or incomplete forms were discarded prior to data entry.

Variables

Demographic information included gender; ethnicity (White, Hispanic, Black, Asian, other); highest level of education attained (1–11 years, HS diploma, college/university for 1, 2, 3, or 4 years; BA or BSc; MA or MSc; Doctorate); denominational preference (all main-line protestant denominations, non-denominational Christian, Catholic, Jewish, agnostic, atheist, and other); marital status; year of birth (to assess age); number of opposite-sex siblings they grew up with; and the structure of their family of origin (both parents, single parent/female, single parent/male, shared custody, blended family, other).

Three personality traits were assessed from the Big 5 Personality Inventory (Cervone, Shadel, & Jencius, 2001): Openness to experience (10 questions, 2 reverse coded), extroversion (8 questions, 3 reverse coded), and neuroticism (9 questions, 3 reverse coded). All 27 questions were measured on a 5-point scale of “strongly disagree” (1) to “strongly agree” (5).

Personal spirituality was assessed by 10 questions selected from the 18-item George-Mabb-Walsh Spirituality Scale (1994). While past administration of the test has utilized all 18 questions, to shorten the current questionnaire, the 10 questions with highest level of inter-item correlation ($\alpha = .92$) were included here. Since spirituality is so central to the present project, the topics addressed in the 10 questions include: 1) belief in a higher power or “God”, 2) incorporation of spirituality into daily activities, 3) time spent in private prayer, 4) being at peace with self, 5) uplifted by inspirational writings, 6) meditation or contemplation of spiritually uplifting things, 7) altruistic giving, 8) contemplating or searching for spiritual beliefs, 9) amount of time reading spiritual material, and 10) spiritual growth a priority. All questions were measured on 7-point scales; anchors varied depending on the nature of the question. Three of the items were reverse coded. The final spirituality measure was the mean of the 10 items.

Sexual attitudes and behaviors were assessed by selected and adapted questions from the Self-Assessment Survey (Carnes, 1990). The SAS was designed originally to assess sexual deviance and is widely used with sex offenders. Since the present study was designed for a general population and the authors did not want to antagonize or create discomfort, the general topics of the SAS were used and questions were modified to fit the characteristics of the participants.

All 12 questions were measured on 7-point scales—the anchors varied depending on the content of the question. The 12 topics (abbreviated) were: 1) I dress to attract sexual attention, 2) Strong sexual feelings cause me discomfort, 3) I feel masturbation is a valid way to reduce sexual tension, 4) I suppress most sexual feelings, 5) I watch movies because they contain nudity, 6) I view porn, 7) I go to strip clubs and/or X-rated movies, 8) Frequency of sexual activity (intercourse, oral sex, or heavy petting), 9) I tell sexual jokes, 10) I go to parties to find sex, 11) a measure of how liberal or conservative they view sexual values on their campus, and 12) a measure of how liberal or conservative are their own sexual values. The final Sexuality value is the mean of 10 of the 12 questions: Questions #2 (discomfort) and #4 (suppress sexual feelings) were dropped from this composite measure because they correlate negatively with the other 10—dramatically reducing the alpha value.

The dependent variable included 16 different characteristics of hypothetical friends that participants rated on a 7-point scale with anchors of “Sexual urgency is never a problem” (1) to “Sexual urgency makes friendship very difficult” (7). In addition, the instructions clarified that, except for the final six settings “the person” was unattached, similar in age, and not biologically related. The questionnaire also clarified that if a certain question did not apply, they were to leave that question blank or enter “NA” on the line.

The 16 types of characteristics or situations (abbreviated) were: 1) the person is physically attractive, 2) the person is sexually appealing, 3) the person is dressed seductively, 4) I am under the influence of drugs or alcohol, 5) our personalities clash, 6) I have known the person for more than 10 years, 7) we have had a past sexual or romantic relationship, 8) our value systems clash, 9) the person wants a romance (and I do not), 10) we shared passionate interests, 11) we have a primary biological relationship (e.g., brother, sister), 12) we have a secondary biological relationship (e.g., cousin, uncle), 13) the person is married, 14) the person is dating or engaged, 15) the person is much older than me, and 16) the person is much younger than me. For an overall measure of CSF Tension, the mean of the 16 items was utilized.

Two additional questions included, “During my teen and young adult years my family discussed sexuality freely and openly.” This was rated on a 5-point scale of “Strongly disagree” (1) to “Strongly agree” (5). The questionnaire finished with a question about the number of close CSFs they had and two open-ended questions asking what characteristics of CSF they liked most and which they found most problematic.

Summary

Three different categories of subjects were acquired: students from a Christian university (CU), students from a secular JC (JC), and participants who were not students (NS). The primary dependent variable was CSF Tension.

Predictors included the nine demographic items, openness to experience, neuroticism, extraversion, personal spirituality, level of education and sexual ideation and practice (Sexuality).

RESULTS

Psychometrics

All key criterion and predictor variables have acceptable levels of skewness and kurtosis except for age. Age is skewed (1.753) toward younger subjects (279 of the 406 subjects were undergraduates) and exhibits high kurtosis (2.238). Skewness and kurtosis for the NS display acceptable psychometrics (skewness = .575, kurtosis = -.904). Taking the natural log of age restored acceptable psychometric characteristics. Internal consistency of the multiple-indicator variables includes: Neuroticism (8 items, $\alpha = .821$), Openness to experience (10 items, $\alpha = .725$), Extroversion (8 items, $\alpha = .844$), Spirituality (10 items, $\alpha = .901$), Sexuality (10 items, $\alpha = .793$), and CSF Tension (16 items, $\alpha = .869$).

Confirmation of Prior Research Findings

In the 14 areas in which the present study addressed similar issues as past studies, findings are confirmed for 12 of them. The authors appreciate that the method of measurement for some of these items may not be clear from the prior description of the study. However, since none of these 14 measures is central to the present argument, we invite those interested to contact the first author for complete documentation. For two issues this study showed contradictory findings: Chatterjee (2001) found that absence of sexual tension increases the likelihood of CSFs. This study finds that absence of CSF Tension is unrelated to the number of CSFs, $r = .012$, $p = .804$. Kaplan and Keys (1997) showed that the duration of the relationship is unrelated to the level of CSF Tension. The present study finds that a longer relationships is associated with lower levels of CSF Tension, $t(405) = 6.60$, $p < .001$. All 14 items are listed in Table 1 with statistical support.

Christian University College (CU) Versus the Secular Junior College (JC)

In a series of independent-samples t tests, the CU students ($M = 4.57$) are found to be almost two standard deviations higher on spirituality than the JC students ($M = 3.08$), $t(277) = 11.35$, $p < .001$. On all 12 of the sexuality questions students from the CU and the JC differ significantly. On the 10 items that assessed sexual activity and values, JC students measure more liberal. CU students score higher on only two items: They are more likely

to suppress sexual feelings (4.20 versus 3.67), $t(277) = 2.52$, $p = .012$; and more likely to experience discomfort due to sexual feelings (2.83 versus 2.40), $t(277) = 2.13$, $p = .034$. However, these items are the two lowest ranked of the 12 items, and, as noted previously, this study tends to discount p -values in the .01 to .05 range. Of the other 10 items, 9 showed significance of $p < .001$, with the tenth at $p = .01$. For the composite Sexuality variable, JC students score significantly higher (3.52 versus 2.52), $t(277) = -9.38$, $p < .001$. The 10 items listed from greatest to least difference included JC students significantly more likely to: attend sexual events, rate their campus as more liberal sexually, have more liberal personal sexual values, view masturbation as a valid way to reduce sexual tension, dress seductively, have more sexual activity, party for sex, tell sexy jokes, and view porn. Statistical support for each of the comparisons is listed in Table 2.

The interesting contrast is that of the 16 different characteristics of hypothetical friends, CU students and JC students differ in their experience of CSF Tension on only one of them: CU students are less likely to experience CSF Tension when under the influence of alcohol or drugs (4.00 versus 2.54), $t(277) = -5.57$, $p < .001$. Since the CU maintains a strict anti-drinking and anti-drugs stance, that difference is not surprising (for example, 61% of CU students rated this item “does not apply” [48%] or “no problem at all” [13%]). For the composite CSF Tension measure (mean of the 16 items) there is also no significant difference (2.79 versus 2.64), $t(277) = -1.40$, $p = .163$. The intriguing contrast is that, for the entire sample, higher levels of sexuality is associated with much higher CSF Tension, $r = .431$, $p < .001$. This significance value ($p < .001$) holds for all three subsets (CU and JC students and the NS) as well. The value is even higher for subjects who are single and not dating/engaged ($r = .490$, $p < .001$). The question to be addressed in the Discussion is: Given the high correlation between Sexuality and CSF Tension, and given the contrasts between the CU and the JC students on all 12 sexuality items, how is it that there are only trivial differences between the two groups on CSF Tension?

Spirituality

Key correlations between spirituality and other variables include that a high level of spirituality is associated with being older ($r = .308$, $p < .001$), less neurotic ($r = -.123$, $p = .007$), more educated ($r = .356$, $p < .001$), having greater openness to experience ($r = .130$, $p = .004$), having lower levels of CSF tension ($r = -.256$, $p < .001$), and, in a correlation value unusual in human-subjects research, lower levels of Sexuality ($r = -.601$, $p < .001$). With a correlation value so high, the first question that arises, do the two variables exhibit linear dependency? No, they do not: Not one of the 10 spirituality questions is in any way related to any of the 10 sexuality questions. The second question considers how does the variable fare in a regression analysis with Sexuality as the dependent variable?

TABLE 2 Contrasts Between Students at the Christian University (CU) and Students at the Junior College (JC) for Spirituality and the 12 Sexuality Variables (Rank Ordered From Most to Least Significant)

| Variable | CU | JC | <i>t</i> | df | 2-tail sig | comment |
|--|-------|-------|----------|-----|------------|--|
| Spirituality | 4.57 | 3.08 | 11.35 | 277 | .000 | CU students more spiritual |
| Attend sexual events | 1.40 | 2.77 | -9.65 | 277 | .000 | JC students more likely to attend strip clubs or X-rated movies |
| SEXUALITY (Mean of 10 items) | 2.52 | 3.52 | -9.38 | 277 | .000 | JC students more overall sexual ideation and activity than CU students |
| Liberal sexual values at my school | 2.85 | 4.37 | -8.97 | 277 | .000 | JC students view their school as more sex-jjajy liberal than CU students view their school |
| Liberality of personal sexual values | 2.69 | 3.93 | -6.75 | 277 | .000 | JC students have more liberal sexual values than CU students |
| Masturbation a valid way to reduce sexual tension | 3.05 | 4.54 | -5.92 | 277 | .000 | JC students more likely to view masturbation as a valid method of sexual release |
| I dress seductively | 2.91 | 3.82 | -5.24 | 277 | .000 | JC students more likely to dress seductively |
| Average frequency of sexual activity in past 12 months | 19.5x | 30.9x | -4.65 | 277 | .000 | JC students greater frequency of sexual activity |
| Party for sex | 1.73 | 2.65 | -4.58 | 277 | .000 | JC students more likely to go to a party in search of sex |
| Sexy jokes | 2.82 | 3.64 | -4.03 | 277 | .000 | JC students more likely to tell sexy jokes |
| View porn | 2.07 | 2.55 | -2.59 | 277 | .010 | JC students more likely to view porn |
| I suppress sexual feelings | 4.20 | 3.67 | 2.52 | 277 | .012 | CU students more likely to suppress sexual feelings |
| Sexual feelings cause personal discomfort | 2.83 | 2.40 | 2.13 | 277 | .034 | CU students experience more sexual discomfort than JC students |

A stepwise regression analysis with Sexuality (mean of 10 items) the criterion variable, and key independents as predictors the following results emerge: $R(1, 397) = .651$, $R^2 = .424$, $p < .001$. The key predictors (with beta values in parentheses) find high levels of Sexuality associated with: lower spirituality ($\beta = -.580$), being more extraverted ($\beta = .166$), being male ($\beta = .097$), having more CSFs ($\beta = .087$), being more open to experience ($\beta = .073$), and coming from an intact home ($\beta = .067$). Clearly the impact of spirituality does not lose much by inclusion of other variables (of note, the β and r values are approximately the same: $\beta = -.580$, $\underline{r} = -.601$).

Other findings associated with spirituality: There is no gender difference between men and women on spirituality. As noted previously, CU students score almost two standard deviations higher on spirituality than the JC students. For spirituality, NS rate higher than students (3.84 versus 4.71), $t(404) = -6.09$, $p < .001$, and the married subjects are more spiritual than the unmarried (3.92 versus 4.81), $t(404) = -5.64$, $p < .001$.

Education

Key correlations between level of education and other variables find that more education is significantly associated with being older ($r = .337$, $p < .001$), less neurotic ($r = -.086$, $p = .042$), being more open to experience ($r = .196$, $p < .001$), more spiritual ($r = .356$, $p < .001$), having lower levels of overall sexuality ($r = -.205$, $p < .001$), having less CSF Tension ($r = -.152$, $p = .001$), and having fewer CSFs ($r = -.125$, $p = .006$). The pattern parallels that of spirituality, but is not as robust. Further, education does not attain significance in regression analyses using either Sexuality or CSF Tension as the criterion variable. If Spirituality is deleted as a predictor of Sexuality, then Education attains significance as the 4th predictor ($\beta = .143$, $p = .006$).

Predictors of CSF Tension

A stepwise regression analysis was conducted to identify predictors of CSF Tension. Results find a significant influence: $R(1, 398) = .547$, $R^2 = .299$. Predictors are listed in order of their Beta values; bivariate correlation values are also listed for comparison. Greater CSF Tension is associated with a higher level of Sexuality ($\beta = .399$, $p < .001$; $r = -.431$, $p < .001$), being unmarried ($\beta = -.213$, $p < .001$; $r = -.297$, $p < .001$), being neurotic ($\beta = .141$, $p = .001$; $r = .127$, $p = .005$), having fewer CSFs ($\beta = -.139$, $p = .002$; $r = .012$, NS), being male ($\beta = .101$, $p = .021$; $r = .104$, $p = .018$), being more open to experience ($\beta = .094$, $p = .027$; $r = .092$, $p = .032$), and (marginally) being younger ($\beta = -.099$, $p = .067$; $r = -.280$, $p < .001$). Three major players in the correlations (Spirituality, $r = -.256$, $p < .001$; age, $r = -.280$, $p < .001$; and education $r = -.152$, $p = .001$) dropped to non-significance in the regressions.

Of the 16 characteristics of hypothetical friendships that were measured for CSF Tension, seven of them rank high for both men and women with the other nine dropping off substantially. The bottom-two ranked items, as expected, were primary biological relationship (such as siblings or children) and secondary biological relationships (such as cousins, nephews, or nieces). Both categories rated close to zero. The top seven in rank order (with the rank for men and women in parentheses) are: 1) sexually appealing (#1 for women, #2 for men); 2) attractive (#3 for women, #3 for men); 3) shared passionate interests (#2 for women, #4 for men); 4) past romance

(#4 for women, #5 for men); 5) dressed seductively (#7 for women, #1 for men); 6) one wants a romance and the other wants a friendship (#5 for women, #6 for men); and 7) under the influence of alcohol or drugs (#6 for women, #7 for men). The only significant gender contrast is for seductive dress. This reflects a society that has many images for a seductively dressed woman and almost none for a seductively dressed man (for example, a Google search of “seductively dressed” produced more than 500 images—all women, no men).

Gender Differences

The assessment of gender contrasts reveals more similarity than difference. Contrasting men with women on all primary criterion and predictor variables plus the 12 sexuality questions and the 16 CSF Tension items, there are only a few differences of interest. As expected, men view more porn ($t(404) = -7.86$, $p < .001$); view more movie nudity ($t(404) = -3.80$, $p < .001$); and experience more CSF Tension for a seductively-dressed woman ($t(404) = -6.51$, $p < .001$). Women measure more neurotic ($t(404) = 4.75$, $p < .001$); and are more likely to dress seductively ($t(404) = 3.21$, $p = .001$). For the composite Sexuality and CSF Tension measures, men rate higher but those results barely achieve significance: For sexuality, $t(404) = -2.35$, $p = .016$; for CSF Tension, $t(404) = -.210$, $p = .037$.

DISCUSSION

This discussion first addresses the contrasts between the CU and JC findings. Following that, the influence of spirituality, education, predictors of CSF tension, application of the Kelley model, and gender differences appear in that order. Implications and applications complete this section.

Christian University Versus Secular College Differences

The first question to be answered is whether the two samples are comparable. The CU sample was a true random sample and when documentation was possible (such as the 56–44 gender ratio) university records paralleled demographics of the sample. The JC sample was not random selection (researchers requested participation in public study areas and in the cafeteria) and the JC sample has a higher percentage of women (65–35 breakdown). However, since women tend to score lower on sexuality and CSF Tension, that difference should diminish differences rather than augment them. As mentioned previously, the two schools do not significantly differ in their academic offerings.

The greatest difference between students on the two campuses is that the CU students score almost two standard deviations higher than the JC

students on spirituality. There appears to be no controversy on the validity of this result on the two campuses measured. The questions of interest are whether the JC is representative of secular campuses in North America and whether the CU is similar in spirituality to other Christian campuses. Evidence suggests that the JC is reasonably representative of secular universities. Direct comparisons are possible for two items of sexual norms of the JC with sexual norms of a large secular university in the United States based on the research of Sprecher et al. (1988). JC students view the sexual norms of their university as slightly more liberal than those of the United States university and their personal norms as slightly (not significantly) more conservative. The question concerning the CU is not as easily answered. The position of the authors, who have experienced a number of Christian campuses, is that the results for the CU are likely to be quite similar to campuses with an evangelical tilt and who place high importance on the centrality of a Christian perspective. Further testing is needed to verify this finding.

As noted in the Results section, the JC and the CU significantly differ on all 12 of the sexuality questions. The CU students are more likely to suppress sexual urges and felt more sexual discomfort. On the other 10 questions, the JC students are more liberal in an array of sexual values and practices. The complicating factor, alluded to in the Results section, is that despite a robust correlation between Sexuality and CSF Tension for the entire sample, the CU and JC students differed on only one of the 16 CSF Tension items—the entirely explainable “when under the influence” issue. Since Sexuality and CSF Tension correlate so highly it would be anticipated that the JC students would also have greater CSF Tension, but that result does not emerge. Are the CSF Tension values skewed downward for the JC Students? Are the CSF Tension values skewed upward for the CU students? Is it a combination of both?

The answer appears to parallel the correlates of Spirituality. The CU students have a high level of spirituality. Spirituality is associated with dramatically lower levels of Sexuality and moderately lower levels of CSF Tension. CU students reflect that pattern: Dramatically lower levels of Sexuality find them significantly more conservative than JC students on all 12 items. Moderately lower levels of CSF Tension also find them lower than their JC counterparts, but the difference is not sufficient to attain significance.

Spirituality

Those high in spirituality have dramatically lower levels of Sexuality and significantly lower levels of CSF Tension. This finding holds for the entire sample and every subset of the sample. The only variation is that the influence of spirituality for the JC sample—where the overall levels of spirituality are lower—is not as strong as for the CU and NS samples.

Those noting the strong correlation here might initially wonder whether lower level of sexual activity is associated with a repressing effect or a

diminishing effect. The repressing effect suggests that, because of lower levels of sexual activity sexual needs are not fulfilled, the effect yields greater sexual desire and hence higher levels of CSF Tension. Eating provides a clear biological example: if one continues to not eat, the need for food continues to increase. The diminishing effect suggests lower levels of sexual-activity-and-ideation results in a diminishing number of cues to trigger sexual urges, resulting in less sexual desire and lower levels of CSF Tension. For example, if a child decides to shift his focus from the tasty marshmallow to playing with blocks, then the desire for the marshmallow disappears.

It appears that both effects seem to occur to some extent. The highest correlation in the data set is between Spirituality and Sexuality ($-.601$). The second highest is between Sexuality and CSF Tension ($.471$). This second correlation already identifies that lower levels of sexual activity results in lower levels of CSF Tension. But the diminishing effect of spirituality on CSF Tension ($-.256$) is lower than the Sexuality/CSF Tension correlation might suggest. Future studies may reveal what factors cause this finding to be true.

Education

The results for education suggest a similar pattern of correlates as for Spirituality, but values are not nearly so robust. Those with more education score lower on Sexuality and CSF Tension (both with significance of $.001$ or lower). But Education does not attain significance in the regression equations unless Spirituality is not entered as a predictor variable. One message seems to be that for this data set, Spirituality consumes some of the variance provided by education. This argument is supported by a significant correlation between Spirituality and education ($r = .356, p < .001$).

Nevertheless, the present findings are consistent with research that shows that more educated people are less fertile and several studies of high school students that, as the title of one article suggests, “Smart Teens Don’t Have Sex (and Don’t Kiss Much Either).” The present study extends those findings into the undergraduate demographic and similar findings hold for the 127 NS. In fact the NS show an even stronger effect due probably to a greater diversity of education level as compared to the more educationally homogeneous undergraduates.

Several ideas have been proposed regarding why more educated people (and, for many studies, more intelligent people) have lower levels of Sexuality and CSF Tension. One is that the discipline to finish school translates into discipline in other areas of their lives, such as personal, intimate, and romantic relationships. Another widely discussed idea is that more educated people have a higher level of self-complexity (Linville, 1985) and are often passionate about many things that are not sexual in nature. Contrast this with television sitcoms that characterize the ubiquitous “low-brow hunk” as thinking about nothing but sex.

Predictors of CSF Tension

The question almost invariably asked of the authors describing the study is, “Well, can they?” The simple answer is “It depends on the person and on the nature of the relationship.” Of the 406 participants, 21 (5%) rated zero tension for all 16 of the described individuals or settings. So, for at least some people, CSF Tension is not an issue in any relationship. In addition, there is the nature of the relationship. If the person is biologically related to someone, the score for all subjects is close to zero. So, for some types of relationships, CSF Tension is rare.

Internal Qualities of One Interact with External or Situational Characteristics of the Other

A 2×2 diagram was used (Figure 1) to illustrate the interactive nature of the personal qualities of one person (“the initiator”) with the external or situational characteristics of the other person (“the recipient”). We appreciate that both persons possess both internal qualities and external or situational cues. But the model we follow is that of Harold Kelley and John Thibaut and their theory of dyadic relationships (1978). While a 2×2 diagram limits the amount of information that can be considered at one time, the clarity provided by its very simplicity is often instructive.

THE INITIATOR

A composite of those most likely to experience CSF tension (based on regression analysis) is: heavily into sexual activities, single, few CSFs, neurotic, male, open to experience, and young. A profile of those least likely to experience CSF Tension is the opposite: little involvement in sexual activities, married, many CSFs, emotionally healthy, female, less open to experience, and older.

THE RECIPIENT

There are seven characteristics of relationships (of the 16) where CSF Tension is most likely to occur. Characteristics most likely to elicit CSF Tension include the other person being: sexually appealing, physically attractive, sharing passionate interests, sharing a past romantic or sexual relationship, being dressed seductively, desiring a sexual or romantic relationship, and being under the influence of alcohol or drugs.

External or situational characteristics least likely to elicit CSF Tension would be the opposite: sexually unappealing, physically unattractive, no shared interests, no past romantic or sexual relationship, dressed conservatively, no desire for a sexual or romantic relationship, and not being under the influence of alcohol or drugs.

| | | External or Situational Characteristics of the RECIPIENT | |
|-------------------------------------|--------------------------|---|--|
| | | HIGH CSF Tension likely | LOW CSF Tension unlikely |
| Internal qualities of the INITIATOR | HIGH CSF Tension likely | 1 Sexually appealing Physically attractive Shared passionate interests Past s/r* relationship Dressed seductively Wants s/r* relationship Under the influence | 2 NOT sexually appealing NOT physically attractive Completely different interests NO past s/r* relationship NO s/r* relationship desired Dressed conservatively Stone-cold sober |
| | LOW CSF Tension unlikely | 3 Sexually appealing Physically attractive Shared passionate interests Past s/r* relationship Dressed seductively Wants s/r* relationship Under the influence | 4 NOT sexually appealing NOT physically attractive Completely different interests NO past s/r* relationship NO s/r* relationship desired Dressed conservatively Stone-cold sober |

Note: *s/r: "sexual or romantic"

FIGURE 1 A Contrast of Internal Qualities of the Initiator with External or Situational Characteristics of the Recipient in a 2 × 2 Diagram.

Figure 1 illustrates the four quadrants of a 2 × 2 display of these qualities or situations. In Quadrant 1 you have the greatest likelihood of arousal of sexual tension. In Quadrant 4 is the lowest likelihood of sexual tension. In Quadrants 2 and 3 opposite qualities are contrasted: Quadrant 2 matches internal qualities that maximize the likelihood of CSF Tension with external or situational characteristics (in the recipient) that minimize such tension. Quadrant 3 illustrates the opposite. Whether or not CSF Tension is aroused would be determined by a wide array of qualities and situations unique to a particular interaction.

Gender Differences

Gender differences are marked more by their similarity than by their differences. There is the traditional reality (that the present study supports) is that

men are more likely to be involved with porn, movie nudity, and experience great CSF Tension if the woman is dressed seductively. Women are more likely to dress seductively and show a significantly higher level of neurosis—a discussion that extends beyond the mandate of this study. On the composite Sexuality measure, even with the men's much higher involvement with porn and movie nudity, the significance is only at the .02 level. Men also experience more CSF Tension with a significance of .03. The weak levels of significance suggest that both men and women may be relatively similar in their experience of Sexuality and sexual tension in CFSs.

Implications and Applications

As a starting point, many of the results of past research have been supported by findings of this study. On the primary issues of spirituality and sexual activities, the study is good news for the PR departments of Christian colleges and universities. The support is strong for what these PR departments have been advertising for years: The spirituality of students at the CU is indeed higher than the levels of spirituality of students at the JC—and previous discussion suggests that these results would hold for contrasts between other Christian and secular colleges and universities. Secondly, the results clearly show that students at the CU view their university as possessing more conservative sexual values, and on the other 11 items were significantly more conservative than the JC students.

Improvements in future studies might be to access a random sample at the secular university or college despite the difficulty and expense demanded at a large school. It is important in future studies to expand to different Christian and secular universities and colleges to see if the same findings hold. The NS ($N=127$) served primarily to provide a wider age range and a greater diversity of educational experience. More might be done with this. The age-range of undergraduates is so small and the education level so similar that correlations have limited value on these two issues that appear to have a major influence on Sexuality and CSF Tension. Perhaps answers may involve the daunting task of collecting a random sample from a community for a clearer picture. Finally, perhaps the designation of education as “number of years of schooling and/or degrees obtained” is too simplistic. The inclusion of how well subjects performed academically (while in school) or a measure of commitment to continued learning or even Linville's (1985) concept of cognitive complexity in daily living might be more instructive.

Additional Implications for Christian University Education

The most important implication for Christian Universities, as they attempt to encourage potential students to attend their school rather than a secular university, is that they now have data to back up their claims. The study

shows clearly that prevailing attitudes on sexuality at secular universities is quite liberal: multiple sexual partners, early sexual activity in a dating situation, and enthusiastic involvement in a variety of sex-related activities. Recall that the secular university in the study scored significantly more liberal on all 12 of the sexuality questions.

Anyone involved with a Christian university knows that there is sexual involvement among students outside of marriage on their campuses. There is no way to fully control that. What is important, however, is that prevailing norm on Christian campuses is conservative: slow to become sexually involved and wait until marriage for sexual intercourse. For an impressionable young student on campus, that prevailing norm has great influence. Consider the legendary conformity research by the notable researchers Musifer Sherif (1936) and Solomon Asch (1955) to underline how important prevailing norms can be.

Another implication (also data driven) backs up the claims of Christian university personnel by documenting a richer spiritual atmosphere on Christian university campuses as revealed by the higher level of spirituality of their students. The study reveals the (using a word rarely acceptable in responsible research) astonishingly higher level of spirituality of students on a Christian university campus—two standard deviations higher than the level of spirituality on the secular campus. The level of spirituality of the students largely determines the spiritual atmosphere of the campus. The research of Sherif (1936) and Asch (1955) is just as relevant here.

Finally, when teaching any classes in which the sexual influence in CSF relationships is addressed (Social Psychology, Developmental Psychology, Human Sexuality), the study provides practical material associated with factors that increase or decrease sexual tension in cross-sex friendships. Of particular note is the 2×2 diagram based on Harold Kelley's research on dyadic relationships (Thibaut & Kelley, 1978). Professors can teach and students can apply in their own lives this information to become more comfortable with their own sexuality.

REFERENCES

- Allport, G. W., & Ross, J. M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5, 432–443.
- Asch, S. E. (1955). Opinions and social pressure. *Scientific American*, 19, 31–35.
- Baumeister, R. F., Catanese, K. R., & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review*, 5, 242–273.
- Baumgarte, R., & Nelson, D. W. (2009). Preference for same-versus cross-sex friendships. *Journal of Applied Psychology*, 39(4), 901–917.
- Bleske, A. L. (2000). Can men and women be just friends? *Personal Relationships*, 7(2), 131–151.

- Campus Starter. (2007). *Christian colleges in Canada*. Retrieved from <http://www.campusstarter.com/ChristianCollegesCanada.cfm>
- Carnes, P. (1990). Sexual addiction. In A. L. Horton, B. L. Johnson, L. M. Roundy, & D. Williams (Eds.), *The incest perpetrator: A family member no one wants to treat*. London, UK: Sage Publications.
- Cattell, R. B. (1974). Differential fertility and normal selection for IQ: Some required conditions in their investigation. *Social Biology*, 21(2), 168–77.
- Cervone, D., Shadel, W. G., & Jencius, S. (2001). Social cognitive theory of personality assessment. *Personality and Social Psychology Review*, 5, 33–51.
- Chatterjee, C. (2001). Can men and women be friends? *Psychology Today*. Retrieved from <http://www.psychologytoday.com/articles/200109/can-men-and-women-be-friends>
- Council for American Private Education (CAPE). (2012). Choosing a school. Retrieved from <http://www.capenet.org/>
- Council for Christian Colleges and Universities (CCCU). (2003). *House resolution*. Retrieved from http://www.cccu.org/news/christian_higher_education_month/chem_108thcongress_hr300
- Coutinho, S. (2007). An evolutionary perspective on friendships selection. *College Student Journal*, 41(4), 1163–1137.
- Cramer, D., & Donachie, M. (1999). Psychological health and change in closeness in platonic and romantic relationships. *Journal of Social Psychology*, 139(6), 762–767.
- Elsesser, K., & Peplau, L. A. (2006). The glass partition: Obstacles to cross-sex friendships at work. *Human Relations*, 59(8), 1077–1100.
- Ephron, N. (Producer), & Reiner, R. (Director). (1989). *When Harry Met Sally*. [Motion picture]. United States: Castle Rock Entertainment.
- Femlee, D., & Muraco, A. (2009). Gender and friendship norms among older adults. *Research on Aging*, 31(3), 318–344.
- Froemling, K. K. (2000). Romantic partners' communication about their cross-sex friends: Dialectical tensions and management strategies. *Dissertation Abstracts International, Section A*, 61(4-a), 1221.
- Fuhrman, R. W., Flannagan, D., & Matamoros, M. (2009). Behavior expectations in cross-sex friendships, same-sex friendships, and romantic relationships. *Personal Relationships*, 16(4), 575–595.
- George, D. M., Mabb, R., Walsh, M. (1994). *Spirituality: Its measure and correlates with students from Christian and secular colleges*. Unpublished manuscript, Canadian University College at Lacombe, Alberta.
- George, D. M., Sickle, K., Rachid, F., & Wopnford, A. (2007). The association between types of music enjoyed and cognitive, behavioral, and personality factors of those who listen. *Psychomusicology*, 19(2), 32–56.
- George, D. M., Dixon, S., Stansal, E., Lund, S., & Phiri, T. (2008). Time diary and questionnaire assessment of factors associated with academic and personal success among university undergraduates. *Journal of American College Health*, 56(6), 706–715.
- George, E. E., & George, D. M. (2009). *The compatibility code: An intelligent woman's guide to dating and marriage*. New York, NY: Morgan James.

- Gilmore, G. E. (1995). The intimate opposite-sex friendships of college students. *Dissertations Abstracts International: Section B: The Sciences and Engineering*, 56(4-B), 2351.
- Grover, L. R., Nangle, D. W., Serwik, A., & Zeff, K. R. (2007). Girl friend, boy friend, girlfriend, boyfriend: Broadening our understanding of heterosocial competence. *Journal of Clinical Child and Adolescent Psychology*, 36(4), 491–502.
- Guerrero, L. K., & Chavez, A. M. (2005). Relational maintenance in cross-sexed friendships characterized by different types of romantic intent: an exploratory study. *Western Journal of Communication*, 69(4), 339–358.
- Halatsis, P., & Christakis, N. (2009). The challenge of sexual attraction within heterosexuals' cross-sex friendships. *Journal of Social and Personal Relationships*, 16(6/7), 919–937.
- Halpern, C. T., Joyner, K., Udry, J. R., & Suchindran, C. (2000). Smart teens don't have sex (or kiss much either). *Journal of Adolescent Health*, 26(3), 213–225.
- Hand, L. S. & Furman, W. (2008). Rewards and costs in adolescent other-sex friendships: comparisons to same-sex friendships and romantic relationships. *Social Development*, 18(2), 270–287.
- Harvey, V. (2003). "We're just friends": Myth construction as a communication strategy in maintaining cross-sex friendships. *Qualitative Report*, 8(2), 314–332.
- Horner, C. (1996). We're just friends: comparison of same-gender and platonic cross-gender friendships. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 56(8-B), 4639.
- Jensen, A. R. (1998). *The g factor: The science of mental ability*. Westport, CT: Praeger.
- Johnson, H. D., Brady, E., McNair, R., Congdon, D., Niznik, J., & Anderson, S. (2007). Identity as a moderator of gender differences in the emotional closeness of emerging adults' same- and cross-sex friendships. *Adolescence*, 42(165), 2–23.
- Kaplan, D. L., & Keys, C. B. (1997). Sex and relationship variables as predictors of sexual attraction in cross-sex platonic friendships between young heterosexual adults. *Journal of Social and Personal Relationships*, 14(2), 191–206.
- Kelley, H. H., & Thibaut, J. W. (1978). *The Social Psychology of Groups*. London: Transaction Publishers.
- Khanchandani, L., & Durham, T. W. (2009). Jealousy during dating among female college students. *College Student Journal*, 43(4), 1272–1278.
- Koenig, B. L., Kirkpatrick, L. A., & Ketelaar, T. (2007). Misperception of sexual and romantic interests in opposite-sex friendships: four hypotheses. *Personal Relationships*, 14, 411–429.
- Lenton, A. P., & Webber, L. (2006). Cross-sex friendships: who has more? *Sex Roles*, 54, 809–820.
- Lobel, S. A., Quinn, R. E., St. Clair, L., & Warfield, A. (1994). Love without sex: The impact of psychological intimacy between men and women at work. *Organizational Dynamics*, 23(1), 4–16.
- Linville, P. W. (1985). Self-complexity and affective extremity: Don't put all of your eggs in one cognitive basket. Depression. [Special Issue]. *Social Cognition*, 3, 94–120.

- Lynn, R. (2004). New evidence of dysgenic fertility for intelligence in the United States. *Intelligence*, 32(2), 193–201.
- Mahoney, J., & Hetrick, D. M. (1979). Factor-specific dimensions in person perception for same- and opposite-sex friendship dyads. *Journal of Social Psychology*, 107(2), 219–225.
- McBride, C. K. (1997). Adolescent same-sex and opposite-sex best friend interactions. *Adolescence*, 32(127), 151–522.
- McDougall, P., & Hymel, S. (2007). Same-gender and cross-gender friendships conceptions: Similar or different? *Merrill-Palmer Quarterly*, 52(3), 347–380.
- Miller, B. C., & Moore, K. A. (1990). Adolescent sexual behavior, pregnancy, and parenting: Research through the 1980s. *Journal of Marriage and the Family*, 52, 1025–1044.
- Monsour, M., Harris, B., Kurzweil, N., & Beard, C. (1994). Challenges confronting cross-sex friendships: “Much ado about nothing?” *Sex Roles*, 31(1/2), 55–77.
- Monsour, M., Harvey, V., & Betty, S. (1997). A balance theory explanation of challenges confronting cross-sex friendships. *Sex Roles*, 37(11/12), 825–845.
- Morry, M. M., Reich, R., & Kito, M. (2010). How do I see you relative to myself? Relationship quality as a predictor of self and partner enhancement within cross-sex friendships, dating relationships, and marriages. *Journal of Social Psychology*, 150(4), 369–392.
- O’Meara, J. D. (1989). Cross-sex friendship: Four basic challenges of an ignored relationship. *Sex Roles*, 21(7/8), 525–543.
- Osborn, F., & Bajema, C. J. (1972). The eugenic hypothesis. *Social Biology*, 19(4), 337–45.
- Reeder, H. M. (1997). What Harry and Sally didn’t tell you: The subjective experience of heterosexual cross-sex friendships. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 57(7–A), 2742.
- Reeder, H. M. (2000). I like you . . . as a friend: The role of attraction in cross-sex friendships. *Journal of Social and Personal Relationships*, 17(3), 329–348.
- Reeder, H. M. (2003). The effect of gender role orientation on same- and cross-sex friendship formation. *Sex Roles*, 49(3/4), 143–152.
- Schneider, C. S., & Kenny, D. A. (2000). Cross-sex friends who were once romantic partners: Are they platonic friends now? *Journal of Social & Personal Relationships*, 17(3), 451.
- Sherif, M. (1936). *The psychology of social norms*. New York, NY: Harper.
- Sprecher, S., McKinney, K., Walsh, R., & Anderson, C. (1988). A revision of the Reiss premarital sexual permissiveness scale? *Journal of Marriage and the Family*, 50, 821–828.
- Thibaut, J. W., & Kelley, H. H. (1978). *The social psychology of groups*. New Brunswick, NJ: Transaction Publishers.
- Vining, D. (1995). On the possibility of the reemergence of a dysgenic trend with respect to intelligence in American fertility differentials: An update. *Personality and Individual Differences*, 19(2), 259–263.
- Weger, H., & Emmett, M. C. (2009). Romantic intent, relationship uncertainty, and relationship maintenance in young adults’ cross-sex friendships. *Journal of Social & Personal Relationships*, 26(6/7), 964–988.

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