Correlates of Same-Sex Sexuality in Heterosexually-Identified Young Adults

<table>
<thead>
<tr>
<th>Journal:</th>
<th>The Journal of Sex Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuscript ID:</td>
<td>08-045.R3</td>
</tr>
<tr>
<td>Manuscript Type:</td>
<td>Original Article</td>
</tr>
<tr>
<td>Keywords:</td>
<td>Attraction/Courtship Behavior, Fantasies, Psychology and sexuality, Sexual minorities</td>
</tr>
</tbody>
</table>
Abstract

Little is currently known about heterosexually-identified individuals who nonetheless acknowledge same-sex interests. To address this shortcoming, we examined the prevalence of same-sex attractions, fantasies, and experiences among heterosexually-identified college students, as well as differences between those who are exclusively heterosexual in their interests and those who are nonexclusive because they report some same-sex attractions or fantasies. Students (N = 243) at a large Northeastern university completed an on-line survey providing information about their sexual orientation identity; same- and other-sex attractions, fantasies, and behaviors; and demographic, sexual history, and sexual attitudes variables. Compared to exclusive heterosexual women, nonexclusive women were more liberal in their political and sexual attitudes and had greater sexual experience. Nonexclusive men were virtually indistinguishable from exclusive heterosexual peers on assessed variables. Results are discussed in terms of implications for the nature and meaning of nonheterosexuality in contemporary Western society.
Based on the conceptualizations of early sexologists, sexual orientation has been traditionally conceived as a multitude of components expressed through a range of overt sexual behaviors and internal states such as feelings, cognitions, and desires (Kinsey, Pomeroy, & Martin, 1948; Shively & De Cecco, 1977). To address this complexity, a number of researchers concluded that sexual orientation is not categorical but dimensional, a “multivariable dynamic process” (Klein, 1990, p. 277). The “multivariable” aspect has been supported by both theorists and methodologists (Chung & Katayama, 1996; Coleman, 1987; Klein, Sepekoff, & Wolf, 1985; Sell, 1996, 1997; Weinrich, Snyder, Pillard, & Grant, 1993) and the “dynamic” aspect, especially over time, has been documented during adolescence and young adulthood for both sexes (Diamond, 2008; Rosario, Schrimshaw, Hunter, & Braun, 2006; Savin-Williams, 2005). In these studies, the most consistently proposed indicators of sexual orientation have been identity, attractions, fantasies, and behaviors.

Despite these understandings, contemporary sexual orientation research often ignores this construct complexity by defining sexuality with reference to only one component and by disregarding the dimensional and dynamic aspects. For example, the sexual orientation of research participants is sometimes categorized based on their self-reported sexual identity, with the typical choices being “heterosexual,” “bisexual,” or “homosexual” (e.g., McBe-Strayer & Rogers, 2002; Tiggemann, Martins, & Kirkbride, 2007). The unstated assumption is that sexual identity is the uniting and stable aspect of one's self-concept that organizes and directs in meaningful ways one’s inner desires and expressed behaviors, and that reflects something essential about oneself (Savin-Williams, 2001, 2006).
However, the extent to which sexual identity is an accurate reflection of true erotic fantasies and attractions and is manifested in actual sexual behaviors remains unclear. Although research on nonheterosexually-identified populations has shown that the correlation among different dimensions of sexual orientation is generally high (Diamond, 1993), many discrepancies exist, particularly among women (Diamond, 2008) and bisexuals (Weinberg, Williams, & Prior, 1994). In addition, Rosario and colleagues (1996) have shown that over time nonheterosexual youth change various components of their sexuality, especially during adolescence and young adulthood.

In contrast to research conducted on gay, lesbian, and bisexual individuals, the discrepancies between identity and other sexual orientation components among heterosexual individuals have rarely been investigated. In fact, little is known about those who border but do not inhabit the exclusively other-sex oriented pole. In most cases, individuals who express a small degree of same-sex sexuality in their identities, behaviors, or attractions are combined with heterosexuals (Bos, Sandfort, de Bruyn, & Hakvoort, 2008; Cardoso, in press; Iemmola & Ciani, in press; Rahman & Hull, 2005; Tiggemann et al., 2007). To increase the sample size of nonheterosexuals, they might also be included with research subjects who have on any singular component an indication of same-sex sexuality (Boyce, Doherty-Poirier, MacKinnon, Fortin, Saab, King, & Gallupe., 2006; Plöderl & Fartacek, 2008). This data reduction is usually justified for empirical (small sample sizes of same-sex oriented subjects) rather than theoretical reasons. Occasionally, investigators drop these individuals altogether from consideration, or at least in some analyses (D’Augelli, Hershberger, & Pilkington, 2001;
Ellis, Robb, & Burke, 2005), or it is not clear what happened to these individuals (Fitzpatrick, Euton, Jones, & Schmidt, 2005).

Although in the past these strategies might have been necessary or justified because few individuals claimed a sexual orientation other than the tripartite heterosexual-bisexual-homosexual, or they were invisible because only one sexual orientation component was assessed, this is no longer the case for both males and females (Austin, Ziyadeh, Fisher, Kahn, Colditz, & Frazier, 2004; Busseri, Willoughby, Chalmers, & Bogaert, 2006, 2008; D’Augelli, Grossman, Salter, Vasey, Starks, & Sinclair, 2005; Ellis et al., 2005; Hoburg et al., 2004; Thompson & Morgan, 2008; Savin-Williams & Ream, 2007). What have emerged from these studies are, presumably, heterosexually-identified individuals who express slight same-sex interests when allowed to respond to dimensional aspects of sexuality. For example, Ellis and colleagues (2005) surveyed over 8000 U.S. and Canadian college students and found that although only 2-3% of men and women identified as homosexual, bisexual, or uncertain, 6-8% reported “1-10% same-sex attraction.” These slightly same-sex oriented individuals were more numerous than those who expressed a strong (50% or higher) same-sex orientation—presumably the 2% of youth who identified as bisexual, gay, or lesbian. Bogaert (2003) reported almost identical findings in a representative sample of British households: 5-6% reported being most often attracted to the other sex, but at least once to the same sex, which was more than those with exclusive same-sex attractions and equal attractions to both sexes combined. In a large sample of Australian twins in which attractions and fantasies were combined in a single score of “sexual feelings,” Bailey, Dunne, and Martin (2000) found a bi-modal distribution in nonheterosexual feelings for men: Kinsey 1,
“heterosexual with slight homosexual feelings,” was reported as often (2.5%) as Kinsey 6, “completely homosexual.” Moreover, most nonheterosexual women (5%) belonged to the Kinsey 1 category, more than Kinsey 2s through 6s combined. When given a restricted choice of sexual identities, such individuals with slight same-sex attractions and/or fantasies are most likely to choose a heterosexual label. However, Thompson and Morgan (2008) proposed that these individuals constitute a new nonheterosexual group, variously named the “mostly straight” or “mostly heterosexual.”

Little about this group, however, has been investigated and thus the consequences of including these individuals in investigations, beyond eliciting varying degrees of same-sex sexuality prevalence rates, remain obscure. If nonexclusive heterosexuals are significantly different from their exclusive peers on relevant outcome variables, treating them as a single homogeneous group would render analyses problematic. The few investigators who compare mostly heterosexual subjects with other sexual orientation groups in their protocol have yielded intriguing but unsystematic results. For example, those with Kinsey scores of 1 (“heterosexual with slight homosexual feelings”) on a combined measure of sexual attractions and fantasies were significantly more gender nonconforming as children and adults and more likely to have had same-sex partners than the exclusively heterosexual (Bailey et al., 2000). Comparing mental health scores across sexual orientation statuses reveals inconsistencies: mostly heterosexual are the healthiest (Austin et al., 2004), the least healthiest (Austin et al., 2004; Busseri et al., 2008), or similar to one or more other sexual orientation groups in their health status (Austin et al., 2004; Busseri et al., 2006, 2008). Compared to heterosexuals, young women who identified as mostly heterosexual were more likely to explore their sexual identity,
manifested through their increased interest in same-sex romantic and sexual relationships and their openness in the future to these endeavors (Thompson & Morgan, 2008). Thompson and Morgan argued that these were not women on their way to “becoming something else;” they occupied a behaviorally unique space and did not aspire to being heterosexual, bisexual, or lesbian.

In this investigation, our goal was to expand knowledge about mostly heterosexual young adults through a web-based survey of a convenience sample of heterosexually-identified young adults. We compared individuals whose psychological components of their sexual orientation were consistent with their heterosexual identity label with those who were inconsistent because they reported some degree of same-sex interests. We chose to focus on psychological rather than behavioral aspects due to their greater stability and independence from situational constrains. Similar to Bailey and colleagues (2000), we used a combination of sexual attractions and sexual fantasies as a measure of sexual orientation and, similar to the approach used by Ellis and colleagues (2005), participants were asked to express their attractions and fantasies to same-sex and opposite-sex partners on a 100-point scale. In addition, following Sell’s (1996, 1997) argument that unidimensional sexual orientation measures force individuals to make trade-offs between their feelings toward the same and the other sex, we assessed both components on two separate continua. Thus, instead of asking participants to sum the percentages of their attractions/fantasies toward women and men to 100%, we allowed these to vary independently.

The focus of this study was on normative behavioral and attitudinal differences between the exclusive and nonexclusive heterosexual-identified young adults.
Unfortunately, little empirical data were available to guide us in predicting group differences. The mostly heterosexual young women in Thompson and Morgan’s (2008) investigation were particularly high on identity exploration and such individuals have been shown to possess more liberal sexual attitudes and greater sexual self-awareness (Worthington, Navarro, Savoy, & Hampton, 2008), which in turn has been related to extensive and varied sexual experiences (Snell, Fisher, & Miller, 1991). In addition, Kinsey 1 scorers in Bailey and colleagues' (2000) study had more same-sex partners than Kinsey 0 scorers. Based on these findings, we hypothesized greater liberality among the mostly heterosexual participants compared to their exclusive peers, in both their sexual behaviors and sexual attitudes. Specifically, we expected this difference to be evident in an earlier onset of sexual activity, more lifetime sexual partners, a greater likelihood of having engaged in casual sex and more casual sex partners (aspects of sexual behaviors), as well as in lower religiosity, more liberal political ideology, and greater acceptance of non-conventional expression of sexuality, such as casual sex and nonmonogamy (aspects of sexual attitudes) among nonexclusive individuals. We also explored whether the degree of nonexclusivity among mostly heterosexual individuals would be differentially related to the variables investigated, or alternatively, whether all mostly heterosexual individuals are the same.

Due to the overwhelming evidence for a differentially structured sexuality in the two sexes (Baumeister, 2000; Chivers, Rieger, Latty, & Bailey, 2004), all analyses were conducted separately for women and men. Given the lack of previous research, no specific hypotheses were made regarding the nature of potential sex differences in the relationship between sexual orientation groups and sexual behaviors and attitudes.
Method

Participants

Through a web-based survey on casual sex, 260 students at a large elite Northeastern university provided information about various aspects of their sexual orientation. Prior to analysis, entries were individually inspected to identify potential multiple responses and other abnormalities. No multiple responses were identified but due to a substantial amount of missing data, 17 participants were excluded from the final sample, resulting in 243 usable entries. Fourteen participants identified as gay or lesbian, 11 as bisexual, 11 as bi-curious, 2 as questioning, and 2 failed to provide this information. The data reported here included 203 (84%) students who identified as heterosexual (112 undergraduates and 92 graduates).

One half (47%) of respondents were female and the mean age of the sample was 23 years (SD = 3.7, range = 18 to 33 years, median = 22). The sample was ethnically diverse: 38% of respondents identified as non-Caucasian (including 9% East Asian, 8% Latina/o, 8% multiracial, 7% Indian, and 5% African American), and 28% were international students (Table 1).

Procedure

The survey was administered on-line using the Websurveyor tool, taking approximately 30 minutes to complete. The research was announced with fliers containing basic information about the survey and direct links to the web-site in several undergraduate and graduate courses across several departments (including engineering, communications, economics, international and labor relations, hotel administration, law, psychology, human development, English, and anthropology). The fliers were distributed
in all residential dormitories for graduate and undergraduate students as well as several
recreational-community centers on campus beginning May 2007. Participants completed
the questionnaire anonymously and without compensation. No information is available
regarding the number of participants recruited using the various strategies or students’
majors.

Measures

Demographics. Respondents provided information about their age, race/ethnicity,
and home country.

Sexual orientation identity label. To assess self-identified sexual orientation,
participants were asked, “How would you label your sexual identity?” Provided response
options were the ones most frequently used in psychological research: “heterosexual,”
“gay/lesbian,” and “bisexual,” as well as two recently used labels, “bi-curious” and
“undetermined/questioning.” These were included in order to provide a more sensitive
measure that would more appropriately classify individuals who were somewhere “in-
between” and who, in the absence of these labels, would most likely have chosen
“heterosexual” despite its inadequacy to accurately describe their sexuality. Only the
responses of those selecting the heterosexual option were analyzed in this paper.

Sexual attraction. Sexual attraction was assessed using Ellis and colleagues’
(2005) approach, modified to allow for bi-dimensional assessment. Participants were
asked two questions, “If you could express your sexual or erotic attractions in
percentages from 0% to 100%, how attracted would you say you are to women [men]?”
They were further instructed that responses do not have to sum to 100%. “For example,
some people can be very attracted to both sexes (respond with 100% to both questions);
other might not be attracted to either sex (respond with 0% to both questions).” Question
order was not counterbalanced for female and male participants, with the attraction to
women assessed before the attraction to men.

Sexual fantasy. Similar to sexual attraction, participants’ same-sex and other-sex
sexual fantasies were assessed with separate questions for each sex, “What percentage of
your sexual fantasies during masturbation or sex involves women [men]?” They were
instructed that the percents to the two questions do not have to sum to 100%. The order of
the two questions was the same across participants.

Sexual behavior. A sex partner was defined as a person with whom genital sexual
contact has been made, including, but not limited to, mutual masturbation, oral sex,
penile-vaginal intercourse, and anal intercourse. Participants were asked to report, in two
separate questions, the total number of female and male sex partners in their lifetime.

Onset of sexual activity. Participants provided the age at which they first
experienced genital contact with a female and a male. The earlier of the two ages was
considered the individual’s onset of sexual activity. Respondents (N = 4) who indicated
that their first genital sexual experience occurred before age 10 were excluded from this
analysis to focus on sexual experiences that occurred peri- and post-pubertal.

Total number of sex partners. The total number of sex partners was calculated by
summing the number of female and male sex partners over the participants’ lifetime.

Past and future engagement in casual sex. Participants provided the total number
of female and male “casual” sex partners, defined as sex partners who respondents “were
not dating at the time nor were emotionally attached to.” Responses were used as a
continuous variable and as a means to categorize respondents in two groups: those with
and without past casual sex experience. Respondents’ interest in future involvement in casual sex was assessed by asking whether they would like to engage in casual sex in the future, thus creating a dichotomous variable.

Religiosity. Religiosity was assessed on 5-point Likert scale ranging from “not at all religious” to “very religious.” Higher scores indicate greater religiosity.

Political ideology. Political ideology was assessed on 5-point Likert scale ranging from “very liberal” to “very conservative.” Higher scores indicate more conservative ideology.

Attitudes toward nonmonogamy. Attitudes toward nonmonogamy were assessed with five items developed for this survey (Appendix). Respondents rated their agreement on a 7-point Likert scale from 1 (“Completely agree”) to 7 (“Completely disagree”). Responses were recoded so that higher scores indicate more positive attitudes toward nonmonogamy. Cronbach alpha was .71

Attitudes toward casual sex. Attitudes toward casual sex assessed respondents’ attitudes toward casual sex as a social phenomenon, rather than their personal interest in engaging in it. On a 7-point Likert scale they rated their agreement to five items developed for this survey (Appendix). Higher scores indicated more positive attitudes toward casual sex. Cronbach alpha was .89.

Results

The sample was politically liberal and non-religious. The vast majority of respondents were sexually experienced (over 90%), with an average of 7 lifetime sex partners. Most had also experienced casual sex and held favorable attitudes toward casual sex, although not toward nonmonogamy (Table 1).
First, we explored the consistency of three components of sexual orientation (attractions, fantasies, and behaviors) among those who self-identified as heterosexual.

Next, we compared the sexual histories and beliefs of respondents who were consistently heterosexual with those who reported a degree of same-sex interests.

**Consistency in Sexual Orientation Components**

Heterosexually-identified individuals reported strong heterosexual components. Other-sex attraction averaged 94% (SD = 8) for women and 97% (SD = 6.4) for men; other-sex fantasy during masturbation, 98% (SD = 11.6) for women and 87% (SD = 23.4) for men. Three respondents of each sex expressed less than 80% other-sex attraction (range = 60% to 75%); two men and eight women expressed less than 50% other-sex fantasy. Two participants (a woman and a man) reported little attraction toward the other sex (less than 30%), no other-sex fantasy, and 100% same-sex attraction and fantasy. They were excluded from further analyses.

Same-sex attraction frequently co-existed with other-sex sexual orientation components. The mean for same-sex attraction was 15% (SD = 15.8, range = 0% to 60%) among women and 6% (SD = 14.9, range = 0% to 80%) among men. For both sexes, sexual fantasy was more exclusively heterosexual than attraction (women: M = 14%, SD = 25.2, range = 0% to 100%; men: M = 2%, SD = 8.6, range = 0% to 65%). Although means were low, the percent of participants who reported any same-sex attraction and fantasy was considerable. Most women and many men reported at least some same-sex attraction (79%, 43%) and fantasy (52%, 22%); these proportions usually ranged from 1% to 10% and women reported a higher percent of same-sex attraction and fantasy than did men (Figure 1).
A small number of respondents (8%) had no genital sexual experience with partners of either sex. Among the sexually experienced, the average number of other-sex partners was nearly identical for both sexes: 7.5 partners (median = 5, range = 1 to 48) among women, and 7.7 partners (median = 5, range = 1 to 51) among men. Of those sexually experienced, a same-sex partner was reported by 14% women and 4% men. The number of same-sex partners was either one or two. All women and all but one man who reported at least one same-sex partner also reported at least one other-sex partner.

Table 2 illustrates the percent of individuals who exhibited inconsistencies between their heterosexual self-identification and one or more of the other sexual orientation components. Respondents were grouped based on the number of components (attraction, fantasy, behavior) on which they indicated at least some same-sex interest (more than 0% attraction or fantasy, or any same-sex partner). The majority of women (84%) and one half of men (51%) expressed inconsistency in their sexual orientation. The majority of those who had a same-sex partner also reported same-sex fantasy (women: 82%, men: 75%) and same-sex attraction (women: 100%, men: 50%). Similarly, most of those with same-sex fantasy reported same-sex attraction (women: 94%, men: 67%).

Sexual Behaviors and Attitudes of Heterosexuals with Exclusive and Nonexclusive Same-Sex Interests

We next explored whether the presence and the degree of same-sex sexuality among heterosexually-identified individuals was related to their sexual behaviors and attitudes. Although same-sex attraction was stronger and more prevalent than same-sex
fantasy, the two were moderately correlated, Spearman’s rho = 0.54, \( p < .0001 \) (a nonparametric test when normality violations characterize both variables, Shapiro-Wilk W test \( p < .001 \)). Thus, reports of same-sex attraction and fantasy were combined into one composite measure of same-sex interest (women: \( M = 14.4, \) SD = 16.9, range = 0 to 80; men: \( M = 4.3, \) SD = 9.8, range = 0 to 63).

To investigate whether any level of nonexclusivity was different from complete exclusive heterosexuality, two groups were created based on the same-sex interest scores. The exclusive heterosexual group was composed of those with a mean score of 0 (0% on both fantasy and attraction); all others were placed in the nonexclusive heterosexual group. Pearson’s correlations were computed between sexual orientation exclusivity status (exclusive v. nonexclusive) and the sexual behaviors and attitudes outcome variables (Tables 3 and 4). The nonexclusive group was on average 2.3 years younger than the exclusive group, t-test \( (201) = 4.46, \) \( p < .001 \). Therefore, partial correlations between the two same-sex interest groups and the outcome variables are presented controlling for age. Equal numbers of both White and non-White participants were categorized as exclusive and nonexclusive, \( \chi^2 (1, N = 203) = 2.2, \) ns, and therefore race was not considered in further analyses. The count variables (number of sex and casual sex partners) were log transformed before running the statistical analyses to overcome non-normality of the distributions. In order to avoid reducing the power of the comparisons in this exploratory study with a relatively small sample, we did not apply Bonferroni corrections (Perneger, 1998).

Nonexclusive women differed from exclusive women on most outcome variables. They were more likely to have had at least one same-sex partner (15% v. 0%), were
marginally more likely to have had casual sex (59% v. 75%), had significantly more sex
partners, had more casual sex partners, held more positive attitudes toward casual sex,
were more liberal in political ideology, and were marginally less religious (Table 3).
Consistent with predictions, nonexclusive women had their sexual debut approximately
1.5 years earlier than exclusive women, had higher scores on the nonmonogamy scale,
and expressed more interest in future casual sex engagement (18% v. 37%); however,
these differences failed to reach statistical significance, most likely due to insufficient
power.

By contrast, exclusive and nonexclusive men were similar on nearly all measures.
After controlling for age, nonexclusive men were more accepting of nonmonogamy than
exclusive men and were marginally more likely to desire casual sex in the future (59% v.
40%) (Table 4).

One possible explanation for the finding that only nonexclusive women but not
men differ in their sexual outcomes from exclusive peers is that women simply exhibit
higher average same-sex interest than men; that is, this sex difference is due to the fact
that the nonexclusive men are not nonexclusive enough. To rule out this possibility two
additional analyses were performed. We first compared exclusive men with the 25% of
the highest same-sex interest nonexclusive men (N for nonexclusive = 13). The results
were virtually identical to the ones obtained for the entire sample as reported in Table 4 –
even the most nonexclusive men were very similar to exclusive men (although this could
have been due to lack of statistical power). Next we repeated the comparisons between
exclusive and nonexclusive women, excluding the 25% highest same-sex interest women (N for nonexclusive = 56). This reduced the women’s mean of same-sex interest to 6.4 (SD = 5.8), which was comparable to the men’s mean, \( t (178) = 1.7, p > .05 \). After controlling for age, this less nonexclusive group of women still differed on most outcome variables from the exclusive ones: they were more liberal \( (r = -.32, p = .006) \), were more accepting of casual sex \( (r = 0.4, p < .001) \), and had more sex partners \( (r = .25, p = .03) \) and casual sex partners \( (r = .27, p = .02) \). The other comparisons were not statistically significant. Thus, regardless of the degree of same-sex interest, differences in sexual outcomes between exclusive and nonexclusive women remained significant, while nonexclusive men closely resembled exclusive ones. These results suggested that nonexclusivity had different meanings for women and men and that this difference was not a matter of degree.

Finally, we explored whether sexual outcomes were affected by the within-sex differences in degree of same-sex interests. To test whether sexual attitudes and experiences become more liberal as the degree of same-sex interests increase, same-sex interest scores of nonexclusive individuals were correlated with the outcome variables. Due to the nonnormality of same-sex interest scores, they were first log transformed and partial correlations after controlling for age were performed. As women’s same-sex interests increased, they manifested lower religiosity, greater interest in nonmonogamy, and marginally greater acceptance of casual sex (Table 5). They were more likely to have had casual sex and same-sex partners, had more total and casual sex partners, and showed a trend toward earlier sexual debut. Degree of same-sex desires among heterosexually-identified men was not significantly correlated with any outcome variables, although as
they became less exclusive in their desires, they showed trends toward more liberal political attitudes and acceptance of nonmonogamy.

[Insert Table 5 here]

Discussion

The majority of heterosexually-identified young adults in this study (84% of women and 51% of men) reported the presence of same-sex sexuality in at least one sexual orientation indicator—sexual attractions, fantasies, or behaviors. Our hypothesis that individuals with nonexclusive sexual interests (some degree of same-sex attractions and/or fantasies) would be more liberal in both their sexual attitudes and sexual histories compared to exclusively heterosexual individuals was supported for the women. Furthermore, as the degree of same-sex interests in women increased, their attitudes became more permissive and their sexual experiences more extensive. In contrast, the presence and extent of same-sex interests in the heterosexually-identified men were largely unrelated to their sexual behavior and attitudes; nonexclusive young men were virtually indistinguishable from their exclusive heterosexual peers. This difference between women and men in the role nonexclusivity played in sexual attitudes and behaviors could not be attributed to women’s higher average same-sex interest.

Our findings for young women could be explained by two factors. Perhaps same-sex interests in women are but one manifestation of a high general sex drive, and thus women who are generally more sexual in other aspects (for example, greater number of sexual partners or earlier sexual debut) are also more same-sex oriented. This is consistent with Lippa’s (2006) results that high sex drive is related to greater bisexuality in women, but not men. Alternatively, nonexclusive women might be more sexually
liberal than their exclusive peers because for women, but not men, same-sex desires are
but one manifestation of the broader social “package” of sexual permissiveness that
includes other liberal sexual attitudes and behaviors. From this perspective, women who
allow themselves greater permissiveness in these other aspects of this package would also
allow themselves to experience greater same-sex interest. This is consistent with the view
that many aspects of female sexuality are fluid and shaped considerably by personal
experiences and social influences (Baumeister, 2000; Diamond, 2008; Peplau & Garnets,
2000). Of course, these two views are not incompatible with one another. Nonexclusive
women could be different from their exclusive peers because of both higher sex drives
and greater social permissiveness.

The failure to replicate these findings with young men indicates that it is perhaps
necessary for men to reach a higher threshold of same-sex sexuality than the one typical
for our sample before differences in attitudes and behavior are apparent. However, even
the highest same-sex interest men in our sample (the 75th percentile and above) did not
differ in the outcome variables from their exclusive peers. One possibility is that the
necessary threshold is so high that men with this level of same-sex sexuality would find it
difficult to maintain a heterosexual identity. Alternatively, in contrast to women, men’s
sexual attitudes and behaviors could indeed be unrelated to the level of same-sex interests
they experience. This is compatible with the growing consensus that male sexual
orientation has a strong biological component (Mustanski, Chivers, & Bailey, 2002) that
is functionally distinct from sex drive, which is implicated in Lippa’s (2006) finding of no
relationship between high sex drive and bisexuality in men, as well as independent from
social norms - Western constructions of male, but not female, sexual permissiveness exclude any degree of nonheterosexuality.

Results in this study confirmed earlier reports that not all heterosexually-identified young adults are exclusively other-sex oriented in all components of their sexual orientation. The reasons why these nonexclusive individuals maintain a heterosexual label, however, remain unknown. It is possible that their degree of same-sex sexuality is not personally or socially salient enough to affect self-identification processes. For example, same-sex sexuality could be construed as “mere curiosity” or “temporary experimentation” with no significant implications for one's sexual and romantic life. The privilege awarded to sexual majority members in our culture, coupled with the relatively low level of same-sex interest among these individuals, might further make the heterosexual label more appealing than nonheterosexual options.

Future studies could test this possibility by including a “mostly heterosexual” label as a response option. If the label one chooses is simply a matter of degree of same-sex interests, perhaps nonexclusive participants that traditionally choose the heterosexual label would select this option instead. If, however, fear of social ostracizing plays a role in the choice of labels, these individuals would maintain a heterosexual identity. Future research should also examine how these nonexclusive heterosexually-identified individuals differ from bisexualy-identified peers. Is the difference simply in the degree of same-sex interests or is it reflected in other aspects of sexual attitudes and behaviors? Qualitative research is needed to more fully understand the meaning that nonexclusive sexual interests have for heterosexually-identified individuals, particularly for men, and the way in which these are incorporated into sexual identities and practices. Longitudinal
designs are necessary to clarify how sexual attraction, fantasy, and behavior change over time and influence future sexual identities, attitudes, and activities.

Our study adds to a growing body of research indicating that sexual orientation is a complex phenomenon, particularly among current cohorts of adolescents and young adults. The respondents who reported any same-sex sexuality were significantly younger than those who claimed exclusive heterosexuality in all sexual orientation components. This age difference might reflect a developmental trend—that is, nonexclusivity as one aspect of the heightened sexual exploration typical of adolescents and young adults (Diamond & Savin-Williams, 2008). Alternatively, the age difference might reflect a secular trend toward nonexclusivity and sexual diversity among current generations of young people that are open to exploring and expressing their sexual needs and desires without necessarily changing their heterosexual label (Savin-Williams, 2005). Young people who are aware and comfortable with their same-sex sexuality do not necessarily need nor want to label themselves as gay, bisexual, lesbian, or a sexual minority, even as they acknowledge and act on their same-sex attraction and fantasy. Without longitudinal data we are unable to assess these trends, both of which could be simultaneously under way.

An important limitation of this study is that participants were all students at an elite university, which restricts geographical and class diversity. The young adults were also politically liberal and non-religious, reflecting both the general composition of the student body at this particular university as well as selection bias toward the more sexually liberal embedded in the recruiting strategy for this study (clearly labeled as one about sexuality). This prevents broader generalization of the results. However, given our
recruitment strategy that included advertisements in several academic departments and
on-campus dormitories, the sample was more inclusive of various academic backgrounds
than studies that focus solely on undergraduate psychology students. Compared to a
recent nationally representative study of college students (Eisenberg, 2001), our sample
of students was somewhat older, more ethnically diverse, and more sexually experienced.
These differences are likely due to the inclusion of graduate and international students. In
addition, unlike Eisenberg’s study, our definition of sexual activity included non-
intercourse genital acts, which likely resulted in a higher percentage of sexually
experienced participants.

Several other methodological limitations should be addressed in future research.
One is to vary the order in which women and men are presented with questions regarding
their attractions toward the same and the other sex. This would exclude the possibility
that the different degrees of nonexclusivity in sexual attractions and/or fantasies reported
by women and men were due to an order effect. The label “straight” should be added as a
response option to questions of sexual orientation identity (in addition to “heterosexual”),
as this is ever more frequently used in colloquial speech, particularly among young
people. The question regarding sexual fantasies used in this study might have been
somewhat linguistically ambiguous and future research would profit from a more precise
formulation. Finally, although the questions we used to assess sexual orientation
components have been modified from previous studies (particularly Ellis et al., 2005),
slight changes in the wording and in the approach (using bidimensional scales from 0-
100% instead of unidimensional) make our measures somewhat unique. Future research
should compare our results to results obtained when using other, more established measures of sexual orientation components.

This study, despite its limitations, contributes to our understanding of inconsistencies in young people’s sexual orientation components, particularly as they are reflected in sexual histories and attitudes. It also adds to the growing evidence of differential organization of female and male sexuality. Finally, it reaffirms that the sexually diverse world of today is one of far greater complexity than the past era of clearly defined dichotomies.
References


Appendix

Attitudes Toward Nonmonogamy

1. If I could find a partner that wouldn’t be jealous, I would love to try an openly nonmonogamous relationship.

2. It would turn me on sexually to see my long-term partner enjoying sex with another person.

3. No matter how much you love each other, sex life with the same partner will become boring after some time.

4. Most people are not born monogamous; it is society that creates that ideal.

5. If I agreed to be in a monogamous relationship, I would find it pretty hard to resist some very attractive people, even if things between me and my partner were going great.

Attitudes Toward Casual Sex

1. People who engage in casual sex are decadent.

2. As long as all parties agree to it, there is nothing wrong about casual sex.*

3. Casual sex brings mostly negative consequences for all involved.

4. The amount of casual sex happening today disturbs me.

5. The widespread of casual sex encounters today is one of the indicators of the moral decay of our society.

* reverse scored
Table 1. Demographic and sexual history characteristics of the sample separate by sex.

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th></th>
<th></th>
<th>Men</th>
<th></th>
<th></th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>22.01</td>
<td>.33</td>
<td>96</td>
<td>23.40</td>
<td>.38</td>
<td>107</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Religiosity¹</td>
<td>2.07</td>
<td>.12</td>
<td>96</td>
<td>2.20</td>
<td>.12</td>
<td>106</td>
<td>n.s.</td>
</tr>
<tr>
<td>Ideology²</td>
<td>2.03</td>
<td>.10</td>
<td>93</td>
<td>2.13</td>
<td>.10</td>
<td>102</td>
<td>n.s.</td>
</tr>
<tr>
<td>Nonmonogamy Scale³</td>
<td>2.58</td>
<td>.12</td>
<td>96</td>
<td>3.28</td>
<td>.11</td>
<td>106</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Casual Sex Scale³</td>
<td>5.10</td>
<td>.14</td>
<td>96</td>
<td>5.22</td>
<td>.14</td>
<td>106</td>
<td>n.s.</td>
</tr>
<tr>
<td>Age Onset of Sex</td>
<td>16.93</td>
<td>.27</td>
<td>83</td>
<td>17.87</td>
<td>.35</td>
<td>97</td>
<td>0.04</td>
</tr>
<tr>
<td>Number Sex Partners</td>
<td>7.08</td>
<td>.90</td>
<td>96</td>
<td>7.20</td>
<td>.81</td>
<td>107</td>
<td>n.s.</td>
</tr>
<tr>
<td>Number Casual Sex Partners</td>
<td>4.27</td>
<td>.68</td>
<td>96</td>
<td>4.9</td>
<td>.72</td>
<td>107</td>
<td>n.s.</td>
</tr>
<tr>
<td>% “Yes” Race – White</td>
<td>61%</td>
<td>96</td>
<td>62%</td>
<td>107</td>
<td>n.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raised in U.S.</td>
<td>80%</td>
<td>96</td>
<td>65%</td>
<td>107</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casual Sex Experienced</td>
<td>71%</td>
<td>96</td>
<td>69%</td>
<td>107</td>
<td>n.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desire Future Casual Sex</td>
<td>33%</td>
<td>96</td>
<td>49%</td>
<td>102</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ – Higher scores indicate greater religiosity (range 1 - 5)
² – Higher scores indicate a more conservative political ideology (range 1 - 5)
³ – Higher scores indicate greater acceptance of nonmonogamy/casual sex (range 1 - 7)
Figure 1. Percent of heterosexually-identified women and men reporting varying degrees of same-sex attraction and fantasy.

N (Women) = 119; N (Men) = 124
Table 2. Percentage of women and men indicating none, one, or more sexual orientation components inconsistent with their chosen heterosexual label.

<table>
<thead>
<tr>
<th>Number of inconsistent components</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>16%</td>
<td>49%</td>
</tr>
<tr>
<td>One</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>Two</td>
<td>41%</td>
<td>16%</td>
</tr>
<tr>
<td>Three</td>
<td>10%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Table 3. Differences between exclusive and nonexclusive women in their sexual behavior and attitudes.

<table>
<thead>
<tr>
<th>Continuous variables</th>
<th>Exclusive</th>
<th>Nonexclusive</th>
<th>Partial Correl. controlling for Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>Religiosity¹</td>
<td>2.4</td>
<td>1.5</td>
<td>17</td>
</tr>
<tr>
<td>Ideology²</td>
<td>2.7</td>
<td>1.2</td>
<td>15</td>
</tr>
<tr>
<td>Nonmonogamy Scale³</td>
<td>2.4</td>
<td>1.3</td>
<td>17</td>
</tr>
<tr>
<td>Casual Sex Scale³</td>
<td>4.0</td>
<td>1.5</td>
<td>17</td>
</tr>
<tr>
<td>Age Onset of Sex</td>
<td>18.1</td>
<td>3.0</td>
<td>14</td>
</tr>
<tr>
<td>Number Sex Partners</td>
<td>4.2</td>
<td>5.2</td>
<td>17</td>
</tr>
<tr>
<td>Number Casual Sex Partners</td>
<td>2.1</td>
<td>3.5</td>
<td>17</td>
</tr>
<tr>
<td>Dichotomous variables</td>
<td>% “Yes”</td>
<td>N</td>
<td>% “Yes”</td>
</tr>
<tr>
<td>Had Same-Sex Partner</td>
<td>0%</td>
<td>17</td>
<td>15%</td>
</tr>
<tr>
<td>Had Casual Sex Partner</td>
<td>59%</td>
<td>17</td>
<td>75%</td>
</tr>
<tr>
<td>Desire Future Casual Sex</td>
<td>18%</td>
<td>17</td>
<td>37%</td>
</tr>
</tbody>
</table>

** p < .01; * p < .05; † p < .10

¹ – Higher scores indicate greater religiosity (range 1 - 5)
² – Higher scores indicate a more conservative political ideology (range 1 - 5)
³ – Higher scores indicate greater acceptance of nonmonogamy/casual sex (range 1 - 7)
Table 4. Differences between exclusive and nonexclusive men in their sexual behavior and attitudes

<table>
<thead>
<tr>
<th>Continuous variables</th>
<th>Exclusive</th>
<th>Nonexclusive</th>
<th>Partial Correl. controlling for Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M  SD  N</td>
<td>M  SD  N</td>
<td>r     N</td>
</tr>
<tr>
<td>Religiosity¹</td>
<td>2.3 1.2 55</td>
<td>2.1 1.3 51</td>
<td>-0.10 106</td>
</tr>
<tr>
<td>Ideology²</td>
<td>2.2 0.9 53</td>
<td>2.0 1.0 49</td>
<td>-0.14 102</td>
</tr>
<tr>
<td>Nonmonogamy Scale³</td>
<td>3.0 1.1 55</td>
<td>3.6 1.2 51</td>
<td>0.28** 106</td>
</tr>
<tr>
<td>Casual Sex Scale³</td>
<td>5.1 1.5 55</td>
<td>5.3 1.5 51</td>
<td>0.09 106</td>
</tr>
<tr>
<td>Age Onset of Sex</td>
<td>18.2 3.7 52</td>
<td>17.5 3.2 45</td>
<td>-0.04 97</td>
</tr>
<tr>
<td>Number Sex Partners</td>
<td>7.5 8.6 56</td>
<td>6.8 8.1 51</td>
<td>0.03 107</td>
</tr>
<tr>
<td>Number Casual Sex Partners</td>
<td>5.0 7.2 56</td>
<td>4.8 7.7 51</td>
<td>0.08 107</td>
</tr>
<tr>
<td>Dichotomous variables</td>
<td>% “Yes” N</td>
<td>% “Yes” N</td>
<td>r     N</td>
</tr>
<tr>
<td>Had Same-Sex Partner</td>
<td>2% 56</td>
<td>6% 51</td>
<td>0.10 107</td>
</tr>
<tr>
<td>Had Casual Sex Partner</td>
<td>68% 56</td>
<td>71% 51</td>
<td>0.08 107</td>
</tr>
<tr>
<td>Desire Future Casual Sex</td>
<td>40% 53</td>
<td>59% 49</td>
<td>0.20† 102</td>
</tr>
</tbody>
</table>

** p < .01; * p < .05; † p < .10

¹ – Higher scores indicate greater religiosity (range 1 - 5)
² – Higher scores indicate a more conservative political ideology (range 1 - 5)
³ – Higher scores indicate greater acceptance of nonmonogamy/casual sex (range 1 - 7)
Table 5. *Relationship between degree of same-sex interest (attraction and fantasy) and sexual outcomes*

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Partial Correlation</td>
<td>N</td>
</tr>
<tr>
<td>Religiosity¹</td>
<td>-0.28*</td>
<td>79</td>
</tr>
<tr>
<td>Ideology²</td>
<td>-0.06</td>
<td>78</td>
</tr>
<tr>
<td>Nonmonogamy Scale³</td>
<td>0.28*</td>
<td>79</td>
</tr>
<tr>
<td>Casual Sex Scale³</td>
<td>0.19†</td>
<td>79</td>
</tr>
<tr>
<td>Age Onset of Sex</td>
<td>-0.21†</td>
<td>69</td>
</tr>
<tr>
<td>Number Sex Partners</td>
<td>0.37**</td>
<td>79</td>
</tr>
<tr>
<td>Number Casual Sex Partners</td>
<td>0.43**</td>
<td>79</td>
</tr>
<tr>
<td>Had Same-Sex Partner</td>
<td>0.31**</td>
<td>79</td>
</tr>
<tr>
<td>Casual Sex Experienced</td>
<td>0.30**</td>
<td>79</td>
</tr>
<tr>
<td>Desire Future Casual Sex</td>
<td>0.13</td>
<td>79</td>
</tr>
</tbody>
</table>

Only participants who indicated some (non-zero) same-sex interest (either attractions or fantasies) are included in this analysis.

**p < .01; * p < .05; † p < .10

¹ – Higher scores indicate greater religiosity (range 1 - 5)
² – Higher scores indicate a more conservative political ideology (range 1 - 5)
³ – Higher scores indicate greater acceptance of nonmonogamy/casual sex (range 1 - 7)