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Sexual Desire, Communication, Satisfaction, and Preferences of Men and Women in Same-Sex Versus Mixed-Sex Relationships

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In an online study, measures of subjective sexual experiences in one's current relationship were compared across four groups: Men and women in mixed-sex (i.e., heterosexual) and same-sex (i.e., homosexual) relationships. Results indicated far more similarities than differences across the four groups, with groups reporting almost identical sexual repertoires, and levels of sexual communication with partner. Men reported experiencing somewhat more sexual desire than women, while women reported slightly higher levels of general sexual satisfaction than men. Those in same-sex relationships reported slightly higher levels of sexual desire than those in mixed-sex relationships. Compared to the other three groups, heterosexual men reported deriving somewhat less satisfaction from the more tender, sensual, or erotic sexual activities. Implications of these findings for sex therapists are discussed.

Chris and Terry recently met, fell in love, and are now launching into a sexual relationship together. What is the likely prognosis for this sexual relationship? How will they fare in terms of their subjective sexual experiences: their degree of sexual desire, sexual satisfaction, or comfort communicating openly about their sexuality? Clearly, many factors will affect the answers to these questions, but in this study we focus on one highly salient aspect—namely, the gender composition of the relationship. Would the prognosis for Chris and Terry's sexual relationship vary at all if they were both men, both women, or a man–woman pair?

Perhaps surprisingly, the answer to this relatively simple question is by no means clear. Past research comparing men and women in same-sex versus mixed-sex relationships¹ has tended to focus on issues surrounding sexual frequency, sexual exclusivity, and safe sex practices (for reviews, see Christopher & Sprecher, 2000;

Kurdek, 1991; Peplau, Fingerhut, & Beals, 2004). More subjective aspects of sexuality, moving beyond “who does what with whom,” have received relatively little attention.

It is important to understand these more subjective aspects of sexuality for at least three reasons. First, understanding the similarities and differences in subjective sexual experiences across groups would be informative to sex therapists and counsellors. If no clear information is available regarding normative sexuality within each group, there is a danger of holding up sexuality in mixed-sex relationships as the standard, and assuming that any deviation from those heterosexual norms is problematic. As one example, some therapists have sought to treat “lesbian bed death,” a reduction in frequency of sexual activity in long-term lesbian couples (for critiques of this construct, see Iasenza, 2002; Nichols, 2004). However, if women in same-sex relationships were found to have as much, or even more, desire for sexual activity than women in mixed-sex relationships, then the focus of the issue shifts: Perhaps the “problem” is actually that women in mixed-sex relationships, at the instigation of their male partners, are having sex *more* frequently than they would ideally desire or with more emphasis on quantity over quality (see Klusmann, 2002; Leiblum, 2002). This is merely one example of how a better understanding of the subjective sexual experiences of all relationship types would help therapists to place findings for any one of those relationship types into an appropriate context.

¹As the term *homosexual* is associated with negative stereotypes by some (American Psychological Association, 2001), we prefer the relatively neutral term *same-sex relationship* to encompass man-man and woman-woman pairings. *Mixed-sex relationship* is then used for man-woman pairings, for grammatical comparability and to avoid the assumption of stark differences between genders contained in the term *opposite-sex relationship*. We also use the terms *gay men*, *lesbians*, and *heterosexual men and women* when describing members of these groups who are not (necessarily) in close relationships. The term *gender* is used when referring to men and women, to avoid potential confusion between the term *sex* as an activity versus a biological construct.

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Second, abetted by the media, some individuals' conceptions of gay and lesbian sexuality might be shaped by particularly dramatic examples (e.g., cruising culture, polyamorous relationships), leading to a belief that sexuality is enacted in very different ways amongst gay and lesbian, as compared to heterosexual, individuals. However, like heterosexuals (Laumann, Gagnon, Michael, & Michaels, 1994), a majority of gay men (Lever, 1994) and lesbians (Lever, 1995) report currently experiencing their sexuality within an ongoing relationship with one other individual. Information on sexuality within such ongoing relationships might help to reduce stereotypes or misinformation, allowing individuals to appreciate the similarities across groups, and to develop a well-informed understanding of any differences that might exist.

Third, comparing all four groups (i.e., men and women in both same-sex and mixed-sex relationships) could potentially shine some light on important factors that shape sexuality for all. For example, the strongly gendered nature of sexuality would be highlighted if gender differences found in heterosexual populations were accentuated even more within same-sex relationships (note, such an accentuation of gendered patterns has in fact been found when examining sexual frequency and sexual exclusivity variables; Blumstein & Schwartz, 1983). On the other hand, if gender differences found within heterosexual populations were to be attenuated for those in same-sex relationships (as has been found in some aspects of mating psychology; Bailey, Gaulin, Agyei, & Gladue, 1994), it would highlight the potential of androgenizing fetal hormone levels (Morris, Grogg, Jordan, & Breedlove, 2004), or subcultural messages of equality and avoidance of gender norms (Kurdek, 2004, 2005), to counteract traditionally gendered sexuality norms.

If those within same-sex relationships were to experience more sexual problems than those in mixed-sex relationships (e.g., poor sexual communication, reduced sexual satisfaction), it might highlight the important influence of the broader culture on couples' sexuality; for example, a relative paucity of culturally shared sexual scripts (Simon & Gagnon, 1986) might make it more challenging for same-sex couples to negotiate their sexuality. On the other hand, if those in same-sex relationships were to show sexual advantages compared to those in mixed-sex relationships, it could highlight the importance of couples' own construction of their sexual lives. For example, a deep familiarity with their partner's sexual anatomy, or the removal of any need to compromise with the other gender's sexual preferences, might make the development of a mutually satisfying sex life more straightforward for those in same-sex relationships.

Thus, there are a number of different patterns that might potentially be observed within the data when the sexuality of the four groups (i.e., men and women

in mixed-sex and same-sex relationships) is compared. Knowing what pattern actually holds would be informative to sex therapists, and to all others wishing to move beyond stereotypes or assumptions regarding each group's sexuality. Unfortunately, almost no research has directly compared the subjective sexuality (e.g., sexual desire, communication, satisfaction, preferences) of all four groups within a single study, and differences in samples and methodologies make comparison of the groups across studies almost impossible. We briefly review what little is known from previous research.

Previous Empirical Findings

Sexual desire. Sexual desire can be defined as a drive or motivation to seek out sexual objects or to engage in sexual activities (Diamond, 2004). One clear finding is that men, on average, report experiencing higher levels of such desire than women (Baumeister, Catanese, & Vohs, 2001; Vohs, Catanese, & Baumeister, 2004). This gender difference is particularly strong when one considers desire for solitary sexual activity, such as masturbation, or desire for sex with a new and unfamiliar other (Oliver & Hyde, 1993). Within a relationship, Leiblum (2002) argued that it is more accurate to characterize women's sexual desire as more highly variable than men's. Women's desire can be just as strong as men's when they are appropriately aroused (Tolman & Diamond, 2001), but it is more vulnerable to disruptions by factors such as hormonal fluctuations, relational issues, and so on (Leiblum, 2002). Gender differences in sexual desire toward a partner still tend to be present, but are relatively small in magnitude (e.g., Davies, Katz, & Jackson, 1999), or hard to detect, given the high variability in women's scores.

Some research suggests that gay male couples have sex more frequently than heterosexual couples, whereas lesbians have sex less frequently (Blumstein & Schwartz, 1983). This finding could be interpreted to indicate that gender differences in sexual desire are accentuated within same-sex relationships. However, the finding might also plausibly be attributed to factors other than sexual desire, such as definitional differences in what constitutes "having sex" (Nichols, 2004), or an emphasis on quality of sex over quantity (Iasenza, 2002).

Previous research hints that gender differences in desire for casual sex, or sexual desire felt toward attractive others outside the relationship (Oliver & Hyde, 1993), might also be accentuated for those in same-sex relationships. Research suggests that gay men consistently emphasize sexual exclusivity less than heterosexual men (Blumstein & Schwartz, 1983; Kurdek, 1991); there are also some indications lesbians may emphasize sexual exclusivity more than heterosexual women (Duffy & Rusbult, 1986), although that pattern is far from consistent (e.g., Blumstein & Schwartz, 1983).

To summarize, heterosexual men clearly report desiring sex (particularly solitary sex or sex with an unfamiliar partner) more than heterosexual women. There are indications that these gender differences might be accentuated within same-sex relationships, but the data there are far less clear. No previous study has directly compared all four groups' self-reported sexual desire.

Sexual communication. Sexual communication refers to the process of discussing aspects of one's sex life with one's partner. There is a significant, but small, tendency for heterosexual women to score higher on this construct than heterosexual men (Byers & Demmons, 1999; Catania, 1998; Greene & Faulkner, 2005). Bell and Weinberg (1978) reported that lesbians were less likely than gay men to rate "partner's failure to respond to sexual requests" and "responding to partner's sexual requests" as problems in their sexual lives. These findings potentially indicate clearer and more responsive sexual communication in lesbian relationships, although they could just as easily indicate that fewer sexual requests are made in lesbian than in gay male pairings. No previous studies have directly assessed sexual communication in gay and lesbian samples, and no studies have directly compared the sexual communication scores of all four groups.

General sexual satisfaction. General sexual satisfaction refers to an overall, global appraisal of the quality of one's sex life. Oliver and Hyde's (1993) meta-analysis found no differences in general sexual satisfaction between men and women; however, a representative national sample in the United States (Laumann et al., 1994) found men's physical and emotional satisfaction with their sex life to be slightly higher than women's. More recent studies sometimes show men reporting slightly higher sexual satisfaction (McCabe, 1999), sometimes women (e.g., Sprecher, 2002; Trudel, 2002), and sometimes no difference (e.g., Haavio-Mannila & Kontula, 1997; Young, Denny, Luquis, & Young, 1998). Overall, then, previous research seems to suggest that men and women are relatively comparable in general sexual satisfaction.

These studies have used heterosexual samples. Two studies (Blumstein & Schwartz, 1983; Kurdek, 1991) have also added comparison groups of men and women in same-sex relationships. These studies found no significant differences in general sexual satisfaction between the four groups. However, both of these studies used only brief, *ad hoc* measures of sexual satisfaction, rather than a well-validated, multi-item measure.

Satisfaction with particular sexual practices. Turning to sexual satisfaction derived from particular activities, there are indications that men may prefer a wider range of sexual practices than women. Bell and Weinberg (1978) found that gay men engaged in a wider range

of sexual activities than lesbians. Laumann et al. (1994), in a primarily heterosexual national sample, found that men preferred a larger number of different sexual acts than women, and showed higher appeal ratings on most of the individual acts.

Of course, the answers received to such questions depend heavily on the particular acts surveyed. In both studies mentioned, the emphasis was fairly strongly on genital sexuality. Women, and particularly lesbian women, may derive particular pleasure from more sensual acts, such as kissing or caressing their partner (Blumstein & Schwartz, 1983; Iasenza, 2002). It is possible that such sensual acts might show a reversal, with women expressing higher levels of satisfaction than men. On the other hand, surveys of gay men and lesbians (Lever, 1994, 1995) do not show large differences between these groups in terms of enjoyment derived from kissing, cuddling, and foreplay. Both groups rated such activities very highly. No previous studies have compared all four groups on sexual satisfaction derived from a wide variety of sexual acts.

This Study

Clearly, almost no empirical work has been done comparing the subjective sexuality of all four groups directly. Accordingly, this study provides preliminary data, comparing all four groups on their sexual desire, communication, satisfaction, and sexual preferences. The only firm hypothesis, based on extensive previous research, is that men will report higher levels of sexual desire than women, especially regarding solitary sexual acts or acts toward an unfamiliar partner. Based on minimal previous research, it is also expected that women will score slightly higher on sexual communication than men, and that the four groups will not differ widely in general sexual satisfaction. In all remaining areas, this study provides the first relevant information; therefore, this study is primarily exploratory and descriptive.

Method

Participants

Participants were recruited for an online study described as examining the links between social support, relationships, and physical and mental health using a variety of different methods (e.g., posters, online and magazine ads, e-mail listserv announcements, snowball sampling from existing participants). The sexuality measures formed only one small aspect of this larger study. All advertising directed potential participants to an information Web site that described the study, eligibility, and incentives. Interested individuals completed a brief demographic questionnaire and provided contact information. Eligible participants were later sent an e-mail inviting them to participate in the study.

Of the 866 individuals who registered their interest in the study, 697 were eligible for this investigation (i.e., 18+ and currently in a relationship; those who described themselves as currently “single” were excluded). Of those eligible individuals, 423 actually proceeded to complete the full study, including the sexuality measures, when invited. Those who did not complete the full study did not differ from those who did on any demographic variables.

Of the 423 respondents, 322 were women (205 currently in mixed-sex relationships and 117 in same-sex relationships), and 101 were men (48 currently in mixed-sex relationships and 53 in same-sex relationships). On average, participants were approximately 30 years old ($M = 29.6$, $SD = 9.1$, range = 18–58), and had been in their current relationship for approximately 5 years ($M = 4.9$, $SD = 5.6$, range = 0–38). They were mostly in serious relationships (only 3% were casually dating; 69% were seriously dating, thought about marriage, or engaged; 28% were married). They were predominantly White (91%) and highly educated (7% high school, 53% some college and university or a bachelor’s degree, and 39% some graduate school or a graduate degree).

The four groups were compared on these five demographic variables, using 2×2 (Gender \times Relationship Type) analyses of variance for continuous variables and chi-square analyses for categorical variables. The alpha level was set at .01, using a Bonferroni correction ($\alpha = .05$, divided by 5 variables). The groups did not differ in their relationship stage, education, or ethnicity. However, those in same-sex relationships were somewhat older, on average, than those in mixed-sex relationships ($M = 34.9$ years vs. 26.9), and had been in longer-term relationships ($M = 6.1$ years vs. 4.4). These two demographic differences were controlled for in all analyses.

Measures

Sexual Desire Inventory. This scale contains 14 items (Spector, Carey, & Steinberg, 1998) designed to assess both dyadic and solitary sexual desire (i.e., desire for masturbation). Responses are given on 8-point scales, with higher numbers indicating stronger desire. For this study, an overall average across all items was first obtained ($\alpha = .86$). Solitary sexual desire was then assessed with four items ($\alpha = .90$; e.g., “During the last month, how often would you have liked to behave sexually by yourself (for example masturbating, touching your genitals, etc.)?”). Examination of the dyadic items showed that although most items referred to “partner” (e.g., “Compared to other people of your age and sex, how would you rate your desire to behave sexually with a partner?”), two items referred to an “attractive person” (e.g., “When you spend time with an attractive person (for example, at work or at school), how strong is

your sexual desire?”). The wording of these two items suggested sexual desire felt toward strangers or acquaintances, rather than toward one’s current sexual partner. Accordingly, for the purposes of this study, these two items were averaged together to form an *attractive other* subscale ($\alpha = .89$), whereas the remaining items formed a *partner* subscale ($\alpha = .84$).

Dyadic Sexual Communication. Sexual communication between partners was assessed using a 13-item measure (Catania, 1998), with responses ranging from 1 (*disagree strongly*) to 6 (*agree strongly*) (e.g., “I seldom feel embarrassed when talking about the details of our sex life with my partner.”). The first 7 items, assessing communication problems, were reverse-scored, and an average was taken across all items. Internal consistency was strong ($\alpha = .89$).

General sexual satisfaction. General satisfaction with the sexual relationship with one’s partner was assessed using the 25-item Index of Sexual Satisfaction (Hudson, 1998; Hudson, Harrison, & Crosscup, 1981). Responses are given on a 7-point scale ranging from 1 (*none of the time*) to 7 (*all of the time*). An average across all items was taken, after reverse-scoring as required. Internal consistency was excellent ($\alpha = .94$).

Satisfaction with particular sexual activities. Sexual satisfaction derived from particular activities was assessed using the 32-item Sexual Satisfaction Inventory (SSI, Whitley, 1998). Participants are presented with a list of behaviours “often engaged in before, during, or directly after the time of sexual activity.” They are asked to indicate the average level of sexual satisfaction they derive from each activity, ranging from 1 (*no satisfaction*) to 5 (*maximum satisfaction*). Participants respond *not applicable* to “any activities you do not engage in at this time.” Note that the scale does not provide information about the frequency of various sexual activities, only whether certain activities are engaged in and the degree of satisfaction derived from those activities that are engaged in. Although the scale was originally designed for use with heterosexual women, the majority of items appeared face valid for use with all groups.

We averaged participants’ scores across all items responded to ($\alpha = .91$), and also counted the total number of different activities engaged in (i.e., 32 minus the number of not applicable responses). We also subdivided the measure into three subscales. The first 24 items of the scale, *non-orgasmic items*, ask about sexual satisfaction derived from a variety of activities (e.g., kissing your partner, watching your partner undress, and oral-genital stimulation of your partner by you); all of these items could be performed, physiologically, by any of our four groups. The last 8 items focus on sexual satisfaction

derived from various types of orgasms. Four of these orgasmic items are *female-centric orgasmic items*, directly mentioning female genitalia (i.e., orgasm with vaginal intercourse only, orgasm with a combination of vaginal intercourse and clitoral stimulation, orgasm with clitoral manipulation by your partner, and orgasm with clitoral manipulation by yourself). Clearly, these four items do not apply at all to male same-sex relationships and within mixed-sex relationships; at least the latter 2 items seem more likely to result in orgasm for the female partner than the male partner. The remaining four *other orgasmic items* (i.e., orgasm experienced more than once during a single sexual encounter, orgasm by fantasy or daydreams, orgasm with oral-genital contact, and orgasm with anal entry), can, physiologically at least, apply to any of the four groups.

For each of these three subscales, we counted the number of items endorsed, and also took an average sexual satisfaction score across all items endorsed. Internal consistency was high for the non-orgasmic subscale ($\alpha = .90$) but much lower for the two orgasmic subscales (i.e., .51 for female-centric orgasmic items and .43 for other orgasmic items).

Procedure

Participants registered their interest in the study at the information Web site. Eligible individuals were redirected via an e-mail to the study’s secure survey portal, which displayed a list of questionnaires asking about a variety of different issues (e.g., perceived social support for the relationship, relational well-being, mental and physical health). The sexuality questionnaires were only one component of the larger study. Participants created their own user identification and password that enabled them to log on and off the site, completing all surveys

online at their own pace, within a 2-week window. The study was anonymous; no identifying information (e.g., IP addresses) was collected. Respondents earned participation points for each questionnaire completed, which they could enter into their choice of a number of different prize draws. After completing all surveys, or at the end of the 2-week period, access to the survey site was removed. Participants were e-mailed thanks for their participation, and a debriefing form.

Results

Data Analysis Strategy

All analyses followed a 2 × 2 Design: Gender (male, female) × Relationship Type (mixed-sex, same-sex). All analyses included age and relationship length as covariates. The five overall scores (i.e., overall mean on each of the 4 scales, plus count of the total number of sexual activities endorsed) were analyzed first, using one multivariate analysis of covariance (MANCOVA). The means for any subscales within each measure were then analyzed, using one MANCOVA per measure. As all MANCOVAs showed significant effects, follow-up 2 × 2 univariate analyses of covariance (ANCOVAs) were then performed on all scales and subscales. The only exception to this procedure was the female-centric orgasmic subscale of the SSI. As these items did not apply at all to those in male same-sex relationships, follow-up analyses on this subscale were performed using one-way ANCOVAs, comparing the remaining three groups (i.e., men in mixed-sex relationships, women in mixed-sex relationships, women in same-sex relationships).

Table 1 shows the means and standard deviations for all analyses, along with the *F* statistics from the

Table 1. Comparison of Men and Women in Same-Sex Versus Mixed-Sex Relationships on All Sexual Scales and Subscales

Scale	Men				Women				Main Effect of Gender		Main Effect of Relationship Type		Interaction	
	Mixed-Sex		Same-Sex		Mixed-Sex		Same-Sex		<i>F</i>	η^2	<i>F</i>	η^2	<i>F</i>	η^2
	M	SD	M	SD	M	SD	M	SD						
Sexual desire	5.2	1.1	5.4	0.9	4.4	1.1	4.6	1.1	39.3***	.09	—	—	—	—
Solitary	4.5	1.6	5.3	1.5	3.3	1.8	3.7	1.8	45.5***	.10	8.5**	.02	—	—
Attractive other	4.6	2.0	5.2	1.6	3.4	1.6	3.8	1.8	41.5***	.09	5.3*	.01	—	—
Partner	5.8	1.1	5.7	1.1	5.4	1.3	5.4	1.3	4.5*	.01	—	—	—	—
Sexual communication	4.7	1.0	4.7	1.0	4.9	0.83	4.8	0.90	—	—	—	—	—	—
General sexual satisfaction	5.4	1.1	5.2	1.2	5.5	0.97	5.5	0.99	5.0*	.01	—	—	—	—
Number of sexual activities	26.1	3.3	25.7	3.2	27.2	3.3	28.3	2.6	25.7***	.06	—	—	4.7*	.01
Non-orgasmic items	21.9	1.8	22.2	2.5	21.6	2.0	22.2	1.6	—	—	—	—	—	—
Female-centric orgasmic items	1.9	1.6	na	—	3.2	1.1	3.4	0.93	27.6***	.13	—	—	—	—
Other orgasmic items	2.4	1.2	3.5	0.9	2.4	1.2	2.8	1.0	7.9**	.02	31.8***	.07	9.4**	.02
Satisfaction from sexual activities	3.0	0.76	3.1	0.71	3.8	0.59	4.0	0.58	140.6***	.26	4.1*	.01	—	—
Non-orgasmic items	3.5	0.74	3.8	0.78	3.8	0.66	4.0	0.63	8.5**	.02	9.8**	.02	—	—
Female-centric orgasmic items	4.4	0.86	na	—	4.2	0.70	4.1	0.74	—	—	—	—	—	—
Other orgasmic items	4.0	0.96	4.0	0.73	4.0	0.86	3.9	0.95	—	—	—	—	—	—

p* < .05. *p* < .01. ****p* < .001.

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univariate follow-up ANCOVAs. To improve table readability, non-significant results are not shown. Table 1 also displays (classical) eta-squared values for each analysis. Eta-squared is a measure of effect size that assesses the proportion of variance within the dependent variable that can be accounted for by the independent variable. It is, therefore, conceptually similar to R^2 in a multiple regression.²

Sexual Desire

The hypothesis that men would report higher levels of sexual desire than women was strongly supported (see Table 1). Men scored moderately higher than women on the overall scale mean, and on both the self and attractive other subscales. Men also scored significantly higher than women on the partner subscale, but the effect size was small. There was no interaction between gender and relationship type; however, there were main effects for relationship type on two subscales. Those in same-sex relationships (*both* men and women) reported higher sexual desire than those in mixed-sex relationships on the self and attractive other subscales; however, the effect sizes were small.

Sexual Communication

The four groups did not differ at all in terms of their sexual communication (see Table 1). The means were virtually identical across all four groups.

General Sexual Satisfaction

Women were significantly more satisfied with the general quality of sex within their relationship than men (see Table 1); however, the effect size was small. There was no significant main effect of relationship type, and no interaction.

Number of Sexual Activities Engaged In

Surprisingly, there was a moderate-sized main effect for gender (see Table 1), suggesting that women engaged in a larger variety of different sexual activities than men. There was also a small-sized interaction effect, indicating that these gender differences were particularly strong within same-sex relationships. However, these overall results are rather misleading. On the 24 non-orgasmic items, there were no significant group differences at all. All four groups displayed very similar sexual repertoires, having

engaged in (on average) approximately 22 of the 24 different sexual acts. Examination of individual items revealed no significant group differences on any item.

Women's apparently higher overall scores are actually entirely accounted for by the fact that they endorsed moderately more female-centric orgasmic items. Of the four female-centric items, women (whether in mixed-sex or in same-sex relationships) endorsed approximately three, on average; in contrast, men in mixed-sex relationships endorsed only approximately two. Examination of the individual items suggested that men in mixed-sex relationships were just as likely as women to experience orgasm via vaginal intercourse; however, they were (unsurprisingly) somewhat less likely to experience orgasm via the remaining three routes, all involving clitoral stimulation of their partner. Men in same-sex relationships, of course, responded not applicable to all of these items, and thus were not included in this analysis.

On the remaining four orgasmic items, which can apply physiologically to all four groups, we actually see a reversal: There is now a small-sized gender main effect, indicating that men endorsed more of these items than women. That main effect was qualified by a small-sized interaction, indicating that gender difference applied more strongly within same-sex relationships (i.e., men in same-sex relationships endorsed more of these items than the other three groups). There was also a moderate-sized main effect of relationship type, indicating that those in same-sex relationships, whether women or men, endorsed more of these items, on average, than their peers in mixed-sex relationships.

Examination of individual items indicated that all of these effects were entirely due to group differences in one item: men in same-sex relationships were far more likely than women in same-sex relationships to have experienced orgasm via anal intercourse (89% vs. 42%). In turn, both of these groups were more likely to have experienced orgasm via anal intercourse than their peers in mixed-sex relationships (23% for men in mixed-sex relationships and 25% for women in mixed-sex relationships).

Satisfaction with Particular Sexual Activities

Averaging across all items endorsed, there appears to be a very large gender effect, indicating that women were much more satisfied with the sexual activities they engaged in than men. The size of this gender effect is misleading, however. Recall that women endorsed more of the female-centric orgasmic items than men; because orgasmic items tended to receive very high sexual satisfaction ratings, inclusion of these female-centric items in the overall mean artificially inflated women's scores relative to men's.

A more accurate picture emerges by breaking down the measure into the three subscales. Neither of the orgasmic subscales showed any group differences.

²Rules of thumb are not widely agreed on for R^2 -type measures; however, Cohen's small, medium, and large effect sizes of 0.2, 0.5, and 0.8 *SDs* (Cohen, 1988) translate roughly into R^2 values of .01, .06, and .15 (Becker, 2000). Therefore, η^2 values less than .05 will be described as small effects, from .06 to .15 as medium or moderate-sized effects, and greater than .15 as large effects.

Although the analyses in the previous section revealed some group differences in how orgasms were achieved, all four groups were equally, and highly, sexually satisfied with the orgasms they did experience. There was, however, a small-sized gender effect on the non-orgasmic items, indicating that women were somewhat more satisfied, on average, with the non-orgasmic sexual activities they engaged in than men. There was also a small main effect for relationship type, indicating that individuals in same-sex relationships were somewhat more satisfied with the non-orgasmic sexual activities they engaged in, on average, than their peers in mixed-sex relationships.

Examination of the individual items suggested that men in mixed-sex relationships consistently scored the lowest of all four groups in terms of the sexual satisfaction they derived from a wide variety of tender (e.g., hugging, talking, and being held), sensual (e.g., kissing, French kissing, having your breasts or chest stimulated by partner, and stimulating your partner's breasts or chest), or erotic (e.g., dancing or undressing for partner) sexual activities.

Discussion

Similarities Across Groups

The most striking pattern of our findings was the strong similarities across groups. For example, the four groups were identical in their sexual repertoires, with the sole exception of anal sex. Of course, we were only able to analyze whether individuals within each group reported engaging in each sexual activity or not. We do not have data on how frequently they engaged in each activity, and such frequency data might well show much larger group differences. Furthermore, any conclusions about sexual repertoires are clearly limited by the particular set of activities listed; a more diverse list of activities might well have shown larger group differences. Still, the SSI does seem to cover the very "basic" items in many individuals' sexual scripts, and on these basics, we see remarkably few differences between groups in their sexual practices, with the sole exception of anal sex.

In addition to not differing in their sexual repertoire, the four groups also did not differ at all in terms of their sexual communication. Such null findings are somewhat surprising. Women place more value on relational talk than men (Acitelli, 1992), and those in same-sex relationships may lack access to generic cultural scripts (Simon & Gagnon, 1986) regarding how to enact their sexuality. We might, therefore, have anticipated these groups to communicate more often or more openly about their sexuality. However, women are also sometimes hesitant to bring up sexual issues (e.g., using a condom; Coleman & Ingham, 1999), and those in

same-sex relationships share similar anatomies and gender roles with their partners, perhaps making explicit sexual communication less necessary. These countervailing forces might balance out, resulting in no overall group differences in sexual communication. These explanations are speculative, however; clearly, much more work needs to be done in this understudied area.

In addition to these areas that showed no group differences, it is important to emphasize that the group differences we do see on other measures were generally very small. Truly, the clearest take-home message of our findings, relevant to sex therapists and researchers, is that the four groups are *much* more similar than different in terms of their subjective sexuality. With that caveat firmly in mind, however, let us briefly summarize the group differences that did emerge.

Gender Differences

Three gender effects emerged in our analyses. First, men expressed moderately higher levels of sexual desire than women. Such gender differences have been found frequently in previous literature (Baumeister et al., 2001); furthermore, this effect was one of the strongest in our study. However, it is important not to overstate the implications of this effect for relational sexuality, given that gender differences in desire for sexual activity with one's partner, the area most directly relevant to couples' sexual functioning, were very small.

Second, women scored slightly higher than men on general sexual satisfaction within the relationship. Both men and women are most sexually satisfied within an ongoing relationship (Laumann et al., 1994); however, women may emphasize relational aspects of sexuality slightly more than men (Peplau, 2003), and therefore may fully appreciate the benefits that come from building a stable sex life within an ongoing relationship with a familiar partner.

Finally, women tended to score slightly higher than men on average level of sexual satisfaction across a wide range of non-orgasmic sexual practices. That finding is somewhat surprising. Given the gender differences in sexual desire, it is very easy to assume that men will "like sex" more than women. That view is supported by one large-scale national survey, which found that men rated almost every one of a list of sexual practices as more appealing than did women (Laumann et al., 1994). However, the more tender, sensual, or erotic aspects of sexuality that are particularly enjoyed by women were not well represented in that survey, or in other recent surveys of sexual practices (e.g., Diamant, Lever, & Schuster, 2000). Given concerns about sexually transmitted diseases, surveys tend to focus on what bodily fluids are exchanged. Questions regarding practices that speak more directly to women's sexuality have been relatively neglected, possibly leading to an

underestimate of women's capacity to derive sexual satisfaction from a wide variety of sexual activities.

Relationship Type Effects

Only two effects for relationship type emerged, both very small in magnitude. First, those in same-sex relationships reported slightly stronger sexual desire for solitary activities and for attractive others than those in mixed-sex relationships; second, those in same-sex relationships tended to value the more sensual or erotic aspects of sexuality. Note that these two findings applied equally strongly to both men *and* women in same-sex relationships. Possibly, those in same-sex relationships, having already broken one major sexual taboo, also tend to be slightly more permissive regarding other sexual matters than heterosexuals, viewing masturbation or harmless fantasizing about attractive others as natural outlets for sexual desire, and enjoying a full and diverse expression of sexuality between partners. Future research should include a measure of sexual permissiveness and investigate whether controlling for that construct accounts for the group differences seen on these variables.

Gender \times Relationship Type Interactions

Setting aside the fact that gay men endorsed the female-centric orgasm items less than other groups, only one statistically significant interaction emerged in our data: Gay men were much more likely to experience orgasm via anal intercourse than any other group. Although it did not manifest as a statistically significant Gender \times Relationship Type interaction (because the remaining three groups varied substantially in their ordering across items), there was also a tendency for men in mixed-sex relationships to score the lowest of all groups in satisfaction derived from tender, sensual, or erotic aspects of sexuality. In fact, the only sexual technique with which heterosexual men were more satisfied than other groups was vaginal intercourse.

These effects should not be overstated: The effect sizes were quite small, and heterosexual men were still firmly above the mean in terms of enjoyment derived from most sexual activities. Still, heterosexual men did seem to enjoy a number of sexual activities slightly less than the other three groups. The explanation is unlikely to stem from basic male biology or childhood gender role socialization; otherwise, the effects should apply just as strongly, or even more so, to gay men (as is seen in sexual frequency and sexual exclusivity data; Blumstein & Schwartz, 1983). One possibility is that vaginal intercourse is so sexually stimulating and satisfying for heterosexual men that other activities pale slightly by comparison. Another possibility is that gay men, with their emphasis on equality between

partners, and de-emphasis of traditional gender roles (Kurdek, 2005), are more open to embracing the traditionally feminine side of their sexuality, with an emphasis on relationships, tenderness, and sensuality (Peplau, 2003).

With these minor exceptions, however, we see very little indication of Gender \times Relationship Type interactions in our data. However, although group differences in internal sexual desires or preferences are very small, it is important to remember that individual preferences do play out within a dyadic context. If both partners share relatively minor shadings of sexual preferences, it could lead to large differences in behaviour when they seek to turn those desires into reality. For example, in our study, gay men scored just slightly higher than other groups on sexual desire toward attractive others; however, if you put two gay men who share those slight preferences together into a relationship, it may then become *considerably* more likely that they will mutually agree on a way to fulfill those desires, such as forming an open relationship (Blumstein & Schwartz, 1983; Kurdek, 1991), or engaging in three-way sex (Lever, 1994), compared to the other three groups. Similarly, lesbians within our sample were slightly more likely than other groups to favor the more sensual or erotic aspects of sexuality. Put two such women together in a relationship, however, and they may fulfill those desires to the hilt. For example, one survey of lesbian women found that 39% reported that their most recent sexual experience had lasted 1 hr or more (Lever, 1995), more than double the percentage in a nationally representative sample (Laumann et al., 1994).

To summarize, our groups differed very little in terms of their individual-level, subjective sexuality. What differences did exist were mostly due to gender. Relationship type added only a small, liberalizing influence, and statistical interactions between gender and relationship type were almost nonexistent. Larger group differences might potentially exist in terms of couples' actual sexual behaviour, but that is likely due more to the opportunities provided by pairing with a partner with similar subtle shadings in sexual desires and preferences, rather than to any radical group differences in underlying sexual psychology.

Strengths and Limitations

These conclusions may seem obvious; however, hindsight is 20/20. As suggested in the introduction, a variety of different patterns of results could plausibly have emerged. The chief strength of our study is that it does permit direct comparison of a variety of aspects of sexuality across all four groups, something that has apparently not been done in any depth for 25 years (cf. Blumstein & Schwartz, 1983). Furthermore, it is important to note that our four groups were quite

comparable, demographically. They were similar in terms of education, ethnicity, and relationship stage. All respondents were currently in relationships, and we statistically controlled for the differences in age and relationship length that did exist across groups. Such controls are important; if studies do not have such controls (e.g., Bell & Weinberg, 1978; Lever, 1995), it is difficult to know how much any differences between groups might be due to demographics, particularly to differences in the proportions of long-term partnered individuals between cells.

There were a number of strengths to our sample. Because the Internet offers ease of access and anonymity, we obtained responses from across the continent. Our gay and lesbian respondents were not restricted to those within a single metropolitan area, or those who were publicly "out." In addition, because the study was not advertised as examining sexuality, we may have avoided the self-selection bias found in more overtly sexual research (Wiederman, 1999).

However, our sample clearly had limitations, as well. It contained far more women than men. It has been our experience that men are more challenging to recruit for any research study than women, particularly for research on relationships. Both men and women were also predominantly young, White, and well-educated. Such demographics do characterize other Internet research samples (Gosling, Vazire, Srivastava, & John, 2004), but are by no means limited to them, as traditional samples are often equally biased (Gosling et al., 2004). The demographics of our same-sex relationship groups also closely resemble those of other large-scale surveys of gay and lesbian individuals that employed traditional, non-Internet methods (e.g., Bryant & Demian, 1994; Lever, 1994, 1995), including one that recruited participants from civil union registrations (Balsam, Beauchaine, Rothblum, & Solomon, 2008). Thus, although our sample clearly overrepresents the young, White, and well-educated, that does not seem to be an artifact of Internet recruitment, as other studies show similar limitations.

Expanding knowledge of sexuality to other sociocultural groups is key because sociocultural background predicts a wide variety of sexual variables, particularly for women (Baumeister, 2000). For example, higher education tends to be associated with a more liberal and accepting approach to a variety of sexual practices (Laumann et al., 1994); thus, this sample is very likely to have reported a more diverse sexual repertoire than one would see in a more fully representative sample. However, links between education and more subjective aspects of sexuality, such as sexual satisfaction, appear to be much less consistent (Laumann et al., 1994; Laumann et al., 2006), making estimation of the precise impact of sampling bias on our remaining measures far from certain; and, of course, we know nothing regarding

whether demographics predict sexuality measures consistently across different relationship types.

In fact, the most pressing need for future research is clearly to conduct a large-scale, representative national survey of sexuality that oversamples gay and lesbian respondents. Although Laumann et al.'s (1994) representative national sample did include some gay and lesbian respondents, the proportions were much too small to allow in-depth analyses or to permit any within-group demographic breakdowns. Extending the preliminary work reported here to a larger and more representative sample would be of clear benefit to sex therapists, researchers, and any others who wish to learn more about sexuality in *all* types of relationships, not just the heterosexual majority.

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