
EMPIRICAL ARTICLES

An Exploratory Study of the Categorical Versus Spectrum Nature of Sexual Orientation

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This exploratory study investigated the nature of sexual orientation (categorical or spectrum) by assessing the relative ability of sexual and romantic indicators to be predicted by sexual orientation labels. Young adults from a variety of community and college venues (N=292) reported their sexual orientation label on a 9-point scale; from a 10-item list, their sexual identity; and the percentage of their sexual attraction, fantasy, genital contact, infatuation, and romantic relationship directed to males and females. Although the five indicators were significantly intercorrelated and sexual orientation labels predicted each indicator, discrepancies existed across indicators in relationship to sexual orientation (highest for attraction, lowest for romantic relationship). Sexual identity and sexual orientation label were strongly related at the ends of the sexual spectrum, less so in the middle. Men were nearly as nonexclusive as women. Study results supported the perspective that sexual orientation is a continuously distributed individual characteristic.

Sexual orientation is defined as an internal mechanism that directs a person's sexual and romantic disposition toward females, males, or both, to varying degrees (LeVay & Baldwin, 2012). It is manifested by a variety of indicators, including physiological arousal, erotic desire, sexual attraction, sexual fantasy, infatuation, genital behavior, romantic relationship, and public and private sexual identity (Sell, 1997). These indicators have been used to assess sexual orientation, either in terms of discrete categories (heterosexual, bisexual, homosexual) or as existing along a continuum from exclusively to the opposite sex to exclusively to the same sex, with degrees of non-exclusivity in between. Although investigators frequently theoretically accept and empirically assess sexual orientation as if it exists along this continuum (a 5- or 7-point Kinsey-like scale), in practice they usually place research participants into one of the three discrete, mutually exclusive groups. This dissolution of the sexual spectrum into three categories is usually undertaken for methodological or practical considerations (e.g., small sample size in non-heterosexual groups), although recently also for theoretical reasons, especially for males (Bailey, 2009).

The spectrum perspective was noted nearly 30 years ago by McConaghy (1987), who argued that sexuality exists along a continuum with degrees of nonexclusivity in between heterosexuality and homosexuality. A decade later, in an invited critique of sex research, McConaghy (1999) concluded that this category versus continuum debate regarding the nature of sexual orientation remained one of the major unresolved issues in sex science, reflected in part by conflicting findings regarding whether sexual orientation consists of taxa or is a matter of degrees (Gangestad, Bailey, & Martin, 2000; Haslam, 1997). Although Kinsey (Kinsey, Pomeroy, & Martin, 1948) and others (e.g., Klein, Sepekoff, & Wolf, 1985) believed that sexual orientation is continuous, Haslam (1997) noted that the Kinsey Scale, a 7-point scale to assess sexual orientation, more often than not has been used as a categorical measure. Because most people tend to congregate at the extreme ends of the Kinsey Scale, investigators use this pattern as justification to dichotomize research participants as either heterosexual or gay/lesbian; all extraneous (nonexclusive) orientations are labeled bisexual, although frequently grouped with gays/lesbians.

The position assumed here is that dissolving sexual orientation into three groups distorts our understanding of sexuality. The prevalence of unacknowledged *in-between sexualities* (between heterosexual and homosexual) can be substantial, sufficiently such that they should not be

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grouped with another set or eliminated from consideration. For example, research over the past decade has revealed that *mostly heterosexuals* (Kinsey Scale 1) show a unique physiological and behavior profile of sexual and romantic characteristics that distinguishes them as a separate sexual orientation group in between heterosexuals and substantial bisexuals (Savin-Williams, Rieger, & Rosenthal, 2013; Savin-Williams & Vrangalova, 2013). Indeed, there are more *mostly heterosexual* men and women than bisexual, mostly homosexual, and gay/lesbian individuals combined (Savin-Williams, Joyner, & Rieger, 2012). A second example is reports of the behavioral and attraction diversity within the *bisexual* group (Kinsey Scale 2 to 4) (Rodríguez Rust, 2002; Taywaditep & Stokes, 1998; Weinberg, Williams, & Pryor, 1994; Weinrich & Klein, 2002), suggesting that the label *bisexual* itself covers multiple subgroups. Third, in a nationally representative study of young adults there were nearly as many or more *mostly homosexual* (Kinsey Scale 5) individuals than male bisexuals or lesbians (Chandra, Mosher, & Copen, 2011), with a pattern of sexual attraction and sex partners distinct from adjacent bisexuals and gays/lesbians (Vrangalova & Savin-Williams, 2012). Finally, a significant minority of heterosexual (Kinsey Scale 0) and homosexual (Kinsey Scale 6) individuals report a small degree of attraction, fantasy, and/or behavior toward their less preferred sex and a majority of those with at least some same-sex attraction do not identify as gay, lesbian, or bisexual (Ellis, Robb, & Burke, 2005; Hoburg, Konik, Williams, & Crawford, 2004; Morales Knight & Hope, 2012; Preciado, Johnson, & Peplau, 2013; Savin-Williams et al., 2012; Vrangalova & Savin-Williams, 2010).

The aims of this study were to provide data on whether dimensional aspects of sexual orientation exist by exploring the varying indicators that have been identified by previous research. Although these sexual orientation indicators are usually highly intercorrelated and are thus said to measure the same construct, this study explored whether discrepancies exist within and across indicators such that individuals can be distributed not in a trifurcated system as straight, bisexual, or gay/lesbian but along a sexual orientation spectrum. The research questions follow:

- RQ1:** Which indicators (attraction, fantasy, sex behavior, infatuation, romantic relationship) have the strongest relationship to sexual orientation labels?
- RQ2:** Is there a distribution of these indicators that significantly differentiates sexual orientation along a continuum from exclusive heterosexuality to exclusive homosexuality?
- RQ3:** Is sexual identity related to sexual orientation?

Given considerable age differences in attitudes toward and the understanding and expression of sexuality (Jones & Cox, 2010; Savin-Williams, 2005), the investigation was limited to the most recent, *millennial*, cohort—those ages 18 to 32 years (Horowitz, 2012). Whether findings

generalize to younger and older age groups was not addressed in this study. Because male sexual orientation is frequently construed as rigid, stable, and exclusive and female sexual orientation as flexible, fluid, and nonexclusive (Bailey, 2009; Baumeister, 2000; Diamond, 2008; Peplau, 2001), all analyses are presented here separately by sex. Finally, because of the recruitment strategy to solicit a range of sexual orientations, the sample is not generalizable to a larger population that would be necessary to resolve the categorical versus spectrum dispute.

Method

Participants

Of 325 individuals who responded to advertisements about a study on gender and sexual orientation, 146 men (mean age=21.7, *SD*=3.4) and 146 women (mean age=21.7, *SD*=3.4) were 32 years or younger (90% of the total) and thus were included in analyses reported here. Nearly two-thirds were currently in a university, community college, or trade school (66% men, 61% women); the rest either had no further formal education after high school (10%, 9%), had graduated from college and were currently working (11%, 16%), were enrolled in postgraduate work (7%, 8%), or had received a graduate degree (4%, 6%). Although the most common ethnicity was Caucasian (62% of men and 66% of women), the sample reflected a range of ethnicities, including mixed ethnicities (13%, 11%), Asian (8%, 11%), African American (8%, 6%), Hispanic (6%, 6%), and Native American Indian (3%, 0%).

Measures

On a computer-based survey, participants completed a 20-page questionnaire that included demographic information (age, sex, educational level, ethnicity) and other measures used in this study.

Sexual orientation label. Sexual orientation label was assessed with an expanded version of the traditional Kinsey Scale (i.e., two responses were added: *exclusively straight* and *exclusively gay/lesbian*). Participants responded to a prompt, “Please check the one that most accurately reflects your current understanding of yourself,” by checking one of nine responses: *Exclusively Straight*=Only sexually attracted to the opposite sex; *Straight*=Nearly always sexually attracted to the opposite sex. Rarely attracted to the same sex; *Mostly Straight*=Mostly sexually attracted to the opposite sex. Occasionally attracted to the same sex; *Bisexual-Leaning Straight*=Primarily sexually attracted to the opposite sex and definitely attracted to same sex; *Bisexual*=More or less equally sexually attracted to opposite sex and same sex; *Bisexual-Leaning Gay/Lesbian*=Primarily sexually attracted to the same sex and definitely attracted to the opposite sex; *Mostly Gay/Lesbian*=Mostly sexually

Table 1. *Levels of Sexual Orientation Indicators Across Nine Sexual Orientation Labels (Read Down)*

Label Indicator	Exclusive Straight	Straight	Mostly Straight	Bisexual Straight	Bisexual	Bisexual Gay	Mostly Gay	Gay	Exclusive Gay	Statistics*
Men	(N=19)	(N=20)	(N=16)	(N=9)	(N=7)	(N=11)	(N=17)	(N=28)	(N=19)	
Attract ⁺	0.3 (0–5) (–2.9, 3.5) ^a	3.1 (0–20) (0.0, 6.2) ^a	13.7 (5–33) (10.2, 17.2) ^b	40.6 (30–65) (35.9, 45.2) ^c	53.4 (36–81) (48.2, 58.7) ^d	72.2 (50–83) (68.0, 76.4) ^e	88.2 (70–99) (84.8, 91.6) ^f	96.5 (80–100) (93.9, 99.2) ^g	99.2 (90–100) (96.0, 102.4) ^g	$F=620.14$ $R^2=.97$
Fantasy	0.5 (0–5) (–3.7, 4.6) ^a	3.3 (0–35) (–0.8, 7.3) ^a	14.6 (0–46) (10.1, 19.1) ^b	59.6 (50–90) (34.5, 46.4) ^c	60.6 (39–90) (53.8, 67.4) ^d	80.0 (50–99) (74.6, 85.4) ^e	90.5 (80–100) (86.1, 94.8) ^f	97.4 (75–100) (94.0, 100.8) ^f	98.6 (90–100) (94.5, 102.7) ^f	$F=381.86$ $R^2=.96$
Genital Behavior	0.0 (0–0) (–7.7, 7.7) ^a	0.3 (0–3) (–7.2, 7.7) ^a	12.4 (0–50) (4.5, 20.4) ^{a,b}	25.4 (0–71) (14.9, 36.0) ^b	67.1 (20–100) (55.2, 79.1) ^c	80.9 (20–100) (71.4, 90.5) ^{c,d}	95.6 (81–100) (87.7, 103.5) ^{d,e}	98.3 (80–100) (92.2, 104.4) ^e	94.7 (4–100) (87.2, 102.1) ^{d,e}	$F=124.84$ $R^2=.88$
Infatuation	1.5 (0–19) (–3.2, 6.2) ^a	2.0 (0–10) (–2.6, 6.6) ^a	12.6 (0–50) (7.5, 17.7) ^b	30.8 (9–51) (24.0, 37.6) ^c	48.6 (20–100) (40.9, 56.3) ^d	81.3 (60–100) (75.1, 87.4) ^e	86.0 (70–100) (81.1, 90.9) ^e	95.9 (70–100) (92.0, 99.7) ^f	98.9 (90–100) (94.3, 103.6) ^f	$F=296.5$ $R^2=.94$
Romantic Relationship	0.8 (0–15) (–6.5, 8.2) ^a	1.6 (0–20) (–5.6, 8.7) ^a	3.7 (0–30) (–4.1, 11.5) ^a	16.4 (0–50) (6.0, 26.9) ^{a,b}	30.0 (0–60) (18.2, 41.8) ^b	69.9 (19–100) (60.5, 79.3) ^c	80.2 (54–100) (71.6, 88.9) ^c	96.9 (78–100) (90.8, 103.1) ^d	94.7 (4–100) (87.3, 102.0) ^{c,d}	$F=122.29$ $R^2=.88$
Women	(N=22)	(N=16)	(N=19)	(N=10)	(N=13)	(N=10)	(N=21)	(N=25)	(N=10)	
Attract	1.0 (0–5) (–3.4, 5.3) ^a	2.9 (0–8) (–2.1, 8.0) ^a	22.7 (9–55) (18.1, 27.4) ^b	33.9 (10–71) (27.5, 40.3) ^c	55.1 (20–80) (49.5, 60.7) ^d	71.4 (50–95) (65.0, 77.8) ^e	83.6 (61–95) (79.2, 88.0) ^f	95.2 (75–100) (91.1, 99.2) ^g	98.4 (90–100) (92.0, 104.8) ^g	$F=247.8$ $R^2=.94$
Fantasy	0.9 (0–10) (–5.7, 7.4) ^a	5.3(10–25) (–2.4, 3.0) ^a	20.8 (10–83) (13.8, 27.8) ^b	44.5 (15–70) (34.8, 54.2) ^c	55.8 (29–77) (47.3, 64.4) ^{c,d}	64.3 (0–95) (54.6, 74.0) ^{d,e}	73.6 (40–95) (66.9, 80.3) ^e	93.2 (50–100) (87.1, 99.3) ^f	96.4 (90–100) (86.7, 106.1) ^f	$F=95.32$ $R^2=.85$
Genital Behavior	0 (0–0) (–9.2, 9.2) ^a	0.3 (0–5) (–10, 10.6) ^a	11.4 (0–60) (1.7, 21.1) ^{a,b}	20.3 (0–100) (6.7, 34.0) ^{a,b}	25.1 (0–60) (13.7, 36.5) ^b	65.8 (0–100) (51.2, 80.3) ^c	78.2 (0–100) (69.0, 87.3) ^c	97.0 (50–100) (88.4, 105.6) ^d	100 (100–100) (87.0, 113) ^{c,d}	$F=64.29$ $R^2=.80$
Infatuation	1.0 (0–10) (–4.2, 6.1) ^a	4.5 (0–29) (–1.6, 10.6) ^a	19.2 (2–50) (13.6, 24.7) ^b	41.6 (20–70) (33.9, 49.3) ^c	57.8 (40–91) (51.1, 64.6) ^d	64.8 (5–100) (57.1, 72.5) ^d	87.8 (70–100) (82.5, 93.1) ^e	96.2 (80–100) (91.4, 101.1) ^e	98.4 (93–100) (90.7, 106.1) ^e	$F=177.22$ $R^2=.91$
Romantic Relationship	0 (0–0) (–8.5, 8.5) ^a	0.4 (0–5) (–9.4, 10.2) ^a	7.9 (0–97) (–1.6, 17.4) ^{a,b}	19.6 (0–100) (6.5, 32.6) ^{a,b}	22.4 (0–60) (11.1, 33.7) ^b	60.5 (0–100) (46.7, 74.3) ^c	85.7 (10–100) (76.8, 94.7) ^d	95.1 (25–100) (87.1, 103.1) ^d	100 (100–100) (87.6, 112.4) ^d	$F=74.67$ $R^2=.82$

Note. *First line=mean percentage (range) of sexual indicator for each sexual orientation label. Second line=lower and upper 95% confidence levels; sexual orientation labels in row that share same letter do not significantly ($p < .05$) differ from each other.

*ANOVA for each indicator across sexual orientation labels at the $p < .0001$.

attracted to the same sex. Occasionally attracted to the opposite sex; *Gay/Lesbian*=Nearly always sexually attracted to the same sex. Rarely attracted to the opposite sex; or *Exclusively Gay/Lesbian*=Only sexually attracted to the same sex. The distribution of men and women along these nine responses is presented in Table 1.

Sexual orientation indicators. Participants indicated their current sexual attraction, sexual fantasy, genital contact (“on the part of one or both of you”), infatuation/crush, and romantic relationship (“dating, both serious and not so serious”) directed to males and to females.

Sexual identity. Embedded within the demographic section was the following question: “What is your sexual identity (please check one)?” Responses included (in alphabetical order): *Bicurious*, *Bisexual*, *Gay/lesbian*, *Mostly gay/lesbian*, *Mostly straight*, *Straight*, *Questioning*, *Queer*, *Unlabeled*, and *Other (please specify)*.

Procedure

In 2010 a study on gender behavior and sexual attraction was advertised in various locations in a rural, college-town community. Advertisements promoting the study were posted on several university Web sites and electronic mailing lists. To enhance recruitment of non-heterosexuals and noncollege students, advertisements were placed on a local Facebook page catering to sexual minority populations; a Craigslist Web forum where men sought both men and women for sexual reasons; and mailing lists for university sororities, fraternities, and residence halls known for their open acceptance of nonheterosexual individuals. Potential volunteers were encouraged to share the lab’s e-mail address with others.

Participants contacted the lab by e-mail, and an appointment was arranged. The survey portion of the study was administered online using a Web surveyor tool (Qualtrics) in a confidential setting on a lab computer. The survey assessed various aspects of sexual orientation, personality, and gender nonconformity and took approximately 20 minutes to complete. Participants were compensated for their time and debriefed. The university’s Institutional Review Board for Human Participants approved the study.

Results

Sexual Orientation Indicators

The five sexual orientation indicators were significantly intercorrelated for men ($r_s=.91$ to $.98$, all $p_s<.0001$) and women ($r_s=.81$ to $.96$, all $p_s<.0001$). A multiple analysis of variance (MANOVA) indicated that the strength of these relationships was significantly different among indicators, $F(8, 125)=8.75$, $p<.0001$ for men and $F(8, 125)=6.85$, $p<.0001$ for women. An analysis of variance (ANOVA)

was subsequently conducted, and each of the five indicators was significantly predicted by sexual orientation label for both sexes, with effect sizes (R -Squares) ranging from $.80$ to $.97$ (Table 1). Sexual attraction most strongly differentiated mean levels across sexual orientation labels and it produced the most ($N=7$) nonoverlapping confidence intervals of group means (Table 1). Fantasy and infatuation were nearly as effective; genital contact and romantic relationship were slightly less effective.

Based on their overlapping 95% confidence intervals of means, all indicators failed to distinguish exclusively straight from straight and exclusively gay/lesbian from gay/lesbian labels (Table 1). By contrast, for both sexes, sharp increases in same-sex sexuality occurred between mostly straights and bisexual-leaning straights in attraction, fantasy, and infatuation, and between bisexuals and bisexual-leaning gays/lesbians in romantic relationship. Among men, a dramatic increase (+40%) in same-sex genital contact occurred between bisexual-leaning straights and bisexuals; among women, between bisexuals and bisexual-leaning lesbians. Despite mean group differences that were frequently significant, each of the nine sexual orientation labels overlapped (on all five indicators) in its range with at least one of its adjacent labels.

Across indicators, R -Square values were slightly higher in men than women. A MANOVA indicated that the general relationship of orientation indicators with orientation label was marginally stronger in men than women, $F(8, 250)=1.90$, $p=.06$. The MANOVA also indicated that the sexes differed significantly in how individual indicators related to sexual orientation labels, $F(8, 250)=6.27$, $p<.0001$ (Table 1). This sex difference was most apparent in contrasting adjacent sexual orientation labels along the continuum from exclusive heterosexuality to exclusive homosexuality (see next section).

Comparisons of Adjacent Sexual Orientation Labels

Exclusively straights’ mean level of same-sex sexuality was zero only for genital contact (both sexes) and romantic relationship (women). On all indicators, straights were slightly more same-sex oriented than exclusively straights and less so than mostly straights. It was among mostly straights (both sexes) in which same-sex sexuality had its first considerable increase (except for romantic relationship). With the exception of genital contact, mostly straight women were more same-sex oriented than mostly straight men.

Another relatively large increase in same-sex sexuality occurred among bisexual-leaning straights (both sexes). In particular, bisexual-leaning straight men differed from bisexual men primarily in having substantially fewer same-sex genital contacts and romantic relationships. Whereas one-quarter of bisexual women reported sex with a woman, two-thirds of bisexual men reported sex with a man. Less than one-third of all bisexuals reported a romantic relationship with someone of the same sex.

On all indicators, there was also a dramatic jump in same-sex sexuality between bisexual men and bisexual-leaning gay men. The increase in same-sex sexuality was less pronounced between bisexual women and bisexual-leaning lesbians, except in genital contact and romantic relationship. For both sexes, on nearly all indicators, bisexual-leaning gays/lesbians were closer to mostly gays/lesbians than they were to bisexuals, and mostly gays/lesbians were closer to gays/lesbians than to bisexual-leaning gays/lesbians. What most distinguished mostly gay men from gays was their significantly fewer same-sex crushes and romantic relationships; among mostly lesbians from lesbians, significantly fewer reports of same-sex attraction, fantasy, and genital contact.

The distinction between gays/lesbians and exclusively gays/lesbians mirrored findings from the heterosexual end of the spectrum. The two groups generally did not differ on mean indicator scores, and only on genital contact and romantic relationship among women were the means 100% for exclusively gays/lesbians.

Sexual Identity

Sexual identity labels corresponded to sexual orientation labels for both men and women (descriptive

data in Table 2). Agreement was most evident at the ends of the sexual orientation spectrum, with over 90% of exclusively straights and exclusively gays/lesbians identifying as straight or gay/lesbian, respectively. Although the majority of the middle five sexual orientation labels and identities matched, a large minority of the nonexclusive labels incorporated a range of identities. For example, mostly straights by sexual orientation label identified as straight, bicurious, bisexual, queer, or unlabeled; and mostly gays/lesbians by sexual orientation identified as bisexual, queer, gay/lesbian, unlabeled, or other. Neither sex was more likely to use nontraditional sexual identities or to mismatch their sexual orientation and sexual identity.

The range of associated sexual identities and orientations was broad in several circumstances. Bicurious-identified individuals labeled themselves as mostly straight (the majority), bisexual-leaning straight, or bisexual. Queer-identified individuals (primarily women) were any orientation other than exclusively straight or straight. The 10 unlabeled, questioning, or “other” individuals were also in the middle of the continuum, populating every sexual orientation label except for the four straight and gay/lesbian labels.

Table 2. *Sexual Identities Among the Nine Sexual Orientation Labels*

Label Identity	Exclusive Straight	Straight	Mostly Straight	Bisexual Straight	Bisexual	Bisexual Gay	Mostly Gay	Gay	Exclusive Gay
Straight									
Men	95%	80%	6%						
Women	100%	88%	5%						
Mostly straight									
Men		20%	50%	11%					
Women		13%	74%	20%					
Bicurious									
Men			13%	11%	14%				
Women			21%	10%	15%				
Bisexual									
Men	5%		13%	67%	86%	55%	12%	4%	
Women	0%		0%	40%	46%	60%	10%	0%	
Mostly gay									
Men						18%	71%	29%	
Women						10%	76%	12%	
Gay/lesbian									
Men							6%	68%	100%
Women							5%	68%	80%
Queer									
Men			13%	11%	0%	18%	0%	0%	0%
Women			0%	10%	23%	20%	5%	20%	20%
Unlabeled									
Men			6%	0%	0%	9%	6%		
Women				10%	8%	10%	5%		
Questioning									
Men				0%					
Women				10%					
Other									
Men					0%		6%		
Women					8%		0%		

Discussion

Answering research question 1, each sexual orientation indicator was significantly predicted by sexual orientation labels. Given that the definition of the sexual orientation label included the term *sexual attraction*, this was not surprising for the sexual attraction indicator. Indeed, sexual attraction has been a common and reliable method of determining sexual orientation, although it is not necessarily clear to some research participants what is meant by sexual attraction (Austin, Conron, Patel, & Freedner, 2007). As a single measure of sexual orientation, however, sexual attraction remains superior to others, although this might depend on the specific research question (e.g., sexual behavior for HIV research) (Savin-Williams, 2006).

Sexual orientation labels were the least good predictors (yet significant) of genital contact and romantic relationship—possibly because engaging in sexual behavior and romance can be constrained by a number of factors not directly related to sexual orientation (e.g., availability of a willing partner, age, virginity pledge). Haslam (1997) previously warned investigators to focus less on overt sexual conduct to assess sexual orientation and to rely more on dispositional variables that are continuous, such as attraction and fantasy. In this study, however, genital contact and romance remained reasonably good indicators of sexual orientation. Whether millennial participants are more likely than previous generations to express their dispositional characteristics through sexual and romantic conduct is worthy of future investigation.

In regard to research question 2, there was a clear distribution of sexual orientation indicators along a spectrum with little evidence that participants coalesced into two or three sexual orientation labels or identities. Depending on the indicator, they differentiated themselves into labels ranging in size from seven (attraction) to four (romantic relationship). Although these labels were statistically distinct, they did not match up on all indicators. For example, bisexual women formed a unique group on attraction, but they did not on the other four indicators (e.g., distinct from bisexual-leaning straights and bisexual-leaning lesbians on fantasy). A second indication of the noncategorical nature of sexual orientation was the considerable overlapping ranges within the sexual orientation labels across indicators. Thus, although sexual orientation labels had a characteristic mean level of an indicator, each often shared its range with several other adjacent labels.

In regard to research question 3, the use of sexual identity to designate a sexual orientation label was generally accurate on the extreme ends of the continuum but less so among nonexclusive individuals (the middle of the continuum). For example, bisexually identified individuals could be of any sexual orientation label except heterosexual or exclusively gay/lesbian; a queer individual could

be of any sexual orientation label except exclusively heterosexual or heterosexual. Despite the popular appeal and simplicity of these terms, participants were consistent with the lack of cultural consensus regarding the appropriate sexual identity names that should be attached to nonheterosexual and nonhomosexual individuals. Supportive of this position, youth in one study reported that a measure of sexual identity with the options *heterosexual*, *bisexual*, *gay/lesbian*, and *unsure* was the most difficult to answer, largely because most preferred an assessment tool that provided intermediate options which reflected their experience of feeling between categories (Austin et al., 2007). Thus, to avoid ambiguity, researchers should use sexual orientation labels rather than sexual identities.

There were relatively few sex differences. Although correlations between sexual orientation labels and indicators were slightly higher among men than women, with women displaying marginally lower boundaries between sexual orientation labels, many men occupied nonexclusive labels, counter to previous research (Bailey, 2009). In terms of sex differences, men experienced marked increases in same-sex *genital contact* and women in same-sex *romantic infatuation* within the bisexual range (bisexual straight, bisexual, bisexual gay/lesbian). Perhaps this reflects the greater significance of romantic indicators among women and genital contact among men to switch from heterosexuality toward homosexuality. For both sexes, however, romantic relationship was the one indicator that lagged most in becoming same-sex oriented, with a marked increase occurring among bisexual-leaning gays/lesbians. To have a small degree of same-sex attraction and fantasy, to develop crushes on another girl or boy, or to engage in genital contact with someone of the same sex and maintain some degree of heterosexuality is perhaps possible for this millennial cohort, but to fall in love and have a romantic relationship with another girl or boy likely reflects a more substantial personal and public marker of one's same-sex sexuality.

An alternative possibility is that although sexual and romantic orientations are identical for most individuals, for some individuals the two operate somewhat independently of each other, especially in their timing of expression. One study found that youth clearly distinguish between their sexual orientation (a physiological, uncontrollable desire for a specific gender, person, or attribute of a person) and their romantic orientation (being or wanting to be in love with a specific gender) (Friedman et al., 2004). Lags in the association between romantic relationship and sexual orientation might confuse some individuals as to the nature of their sexuality. Future investigations should assess separately sexual and romantic orientations, especially regarding intraindividual congruence.

One novel aspect of the study was the expansion of Kinsey's original 7-point scale to nine by adding one point

to each end of the continuum. This decision was based on the considerable data that not all heterosexual and homosexual individuals are exclusive to their preferred sex on all indicators (Vrangalova & Savin-Williams, 2012). In the present study, although separating exclusively heterosexual and gay/lesbian from merely being heterosexual or gay/lesbian did not result in distinctive groups, the latter groups were slightly less exclusive than the former. Yet despite the inclusion of the term *exclusively*, not all such identified individuals were so restricted. Exclusively straight and lesbian women were only exclusive in genital behavior and romantic relationship, exclusively straight men were only exclusive for genital contact, and exclusively gay men were not exclusive on any indicator. Based on these findings, just as some gays/lesbians have nonpreferred sex/romantic interests, so do some heterosexuals.

Finally, in regard to bisexuality, it is difficult to disagree with Haslam (1997, p. 868) that bisexuality “may simply be a matter of people acting in accordance with their continuously graded dispositions.” Construed in this manner, the broader term *bisexuality* is less a category and more a continuous range of relative degrees of attraction, fantasy, infatuation, genital contact, and/or romance toward women and men—with variability across individuals and indicators. In the data reported here, one bisexual person might be nonexclusive in fantasy and behavior, while another might be nonexclusive in infatuation and romance; a bisexual might be 80% or 40% oriented toward the opposite or the same sex with variability dependent on the indicator. Thus, in addition to indicating nonexclusivity, bisexuality has further meaning when it is specified in terms of its indicators.

The most important limitation of the present study is that participants were not drawn from a representative sample and thus results are not necessarily generalizable to other populations. Participants were specifically recruited for a study on sexuality and to enhance diversity in sexual orientation. In particular, no general conclusions should be reached regarding the prevalence of sexual orientation labels or a sexual spectrum in the larger population or to other age groups. Neither is it known if participants had a shared understanding of the sexual orientation indicators, not only in terms of definition but also in intensity, quality, and frequency. For example, a male in a sexual fantasy might be a peripheral figure or a central component necessary to maximize the intensity of the fantasy. Genital contact includes not only touching someone’s genitals but also intercourse, with perhaps considerably different motivations and meanings for individuals. Partners might differ in terms of whether their relationship constitutes a romance. Whenever studies can afford detailed questions, more specific information regarding the meaning, frequency, intensity, and quality of sexuality should be asked. In addition, given the nature of data collection and the limited number of participants, potential differences related to race, ethnicity, and class were not addressed.

Based on data presented here, *heterosexual*, *bisexual*, and *gay/lesbian* labels do not constitute the universe of sexual orientations. Although the usual procedure when sexual orientation indicators are highly intercorrelated is to create a single composite score, this process disguises variability and complexity within the sexual orientation construct. The results of this study indicate that sexual orientation is a continuously distributed characteristic of individuals, and all decisions to categorize it into discrete units, regardless of how many, are ultimately external impositions placed on individuals’ experiences.

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