Female Bisexuality From Adolescence to Adulthood: Results From a 10-Year Longitudinal Study

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Debates persist over whether bisexuality is a temporary stage of denial or transition, a stable “3rd type” of sexual orientation, or a heightened capacity for sexual fluidity. The present study uses 5 waves of longitudinal data collected from 79 lesbian, bisexual, and “unlabeled” women to evaluate these models. Both the “3rd orientation” and “fluidity” models had support, but the “transitional stage” model did not. Over 10 years, 2/3 of women changed the identity labels they had claimed at the beginning of the study, and 1/3 changed labels 2 or more times. Yet, contrary to the “transitional stage” model, more women adopted bisexual/unlabeled identities than relinquished these identities; few bisexual/unlabeled women ended up identifying as lesbian or heterosexual. Overall, the most commonly adopted identity was “unlabeled.” Bisexual/unlabeled women had stable overall distributions of same-sex/other-sex attractions but greater absolute fluctuations in attractions from assessment to assessment than lesbians. All women reported declines in their ratio of same-sex to other-sex behavior over time. These findings demonstrate that the distinction between lesbianism and bisexuality is a matter of degree rather than kind.

Keywords: bisexuality, sexual orientation, psychosexual development, longitudinal study

Although basic research on sexual orientation has made significant strides over the past 20 years, one area that remains woefully underinvestigated is bisexuality. Simply defining bisexuality remains problematic. Most researchers and laypeople view bisexuality as a pattern of erotic responsiveness to both sexes (Rust, 2002), yet even this broad conceptualization leaves many questions unanswered: Does any fleeting instance of same-sex attraction or fantasy “count,” or must bisexuals experience regular, strong, and sustained attractions to both sexes? What about individuals who claim that although they do not currently experience attractions to both sexes, they have the potential to do so? For example, in their random, representative study of American adults, Laumann, Gagnon, Michael, and Michaels (1994) reported that a greater number of women found same-sex contact “appealing” than indicated being attracted to women. Are they bisexual?

Neither researchers nor gay/lesbian/bisexual individuals agree on the answers to such questions. As a result, many studies of same-sex sexuality have specifically excluded bisexualy identified individuals over the years for the sake of conceptual and methodological clarity (Rust, 2000b). Between 1975 and 1985, only 3% of the journal articles published on same-sex sexuality specifically included the word bisexual or bisexuality in the title, abstract, or subject headings. Between 1985 and 1995, this figure increased to 16%, reflecting the emerging acknowledgment of bisexuality as a legitimate sexual identity. In the past 10 years, however, that percentage has climbed only 3 more percentage points, demonstrating that the empirical underrepresentation of bisexuality persists.

This is somewhat ironic, given that studies using representative samples increasingly indicate that bisexual patterns of sexual attraction and behavior are more common than previously thought, and they are actually more common than exclusive same-sex sexuality among women (Garofalo, Wolf, Wissow, Woods, & Goodman, 1999; Kirk, Bailey, Dunne, & Martin, 2000; Laumann et al., 1994; Mosher, Chandra, & Jones, 2005). Sexual-minority youth, too, appear increasingly likely to adopt bisexual and “unlabeled” identities rather than lesbian/gay identities, not only as a description of their attractions but also as an overarching philosophy embracing noncategorical, nongender-based models of sexuality (Savin-Williams, 2005). Yet, despite these changes in the cultural visibility and legitimacy of bisexuality (Diamond, 2005a; Firestein, 2007; Leland, 1995; Rust, 2000c, 2002; Weinberg, Williams, & Pryor, 1994), many basic questions about its nature and development remain unanswered. In particular, scientists and laypeople continue to debate whether bisexuality is (a) a temporary stage of denial, transition, or experimentation; (b) a “third type” of sexual orientation, characterized by fixed patterns of attraction to both sexes; or (c) a strong form of all individuals’ capacity for sexual fluidity. Although these are not the only models of bisexuality that have been suggested over the years (see reviews in MacDonald, 1981; Rust, 2000a), they remain among the most influential and widely held.

No prior research has systematically compared the evidence for these models, largely because such a comparison requires long-term longitudinal data on stability and change in women’s attractions, behaviors, and identities. Such information is now available. In the present study, I use 10-year longitudinal data collected from 79 sexual-minority (i.e., nonheterosexual) women to examine the degree of empirical support for each of the aforementioned models.

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of bisexuality. The findings advance not only researchers’ specific understanding of bisexuality but also researchers’ general understanding of female sexual development over the life course.

Bisexuality and the Question of Change

Longitudinal data are indispensable for comparing the three aforementioned models of bisexuality because each entails a different perspective on change over time in sexual attractions, behaviors, and identities. The question of change has long garnered interest and controversy in research on sexual orientation, given that traditional, essentialist models of sexual orientation make no allowances for longitudinal change. According to an essentialist perspective, individuals are thought to be endowed with fixed, early developing sexual predispositions that manifest themselves in consistent patterns of same-sex or other-sex desire over the life course (reviewed in DeCecco & Elia, 1993).

Bisexual attractions pose a quandary for this model because such attractions necessarily create the potential for change over time: alternating between same-sex and other-sex partners, for example, or altering one’s self-described sexual identity according to the gender of one’s current partner (Weinberg et al., 1994). Yet, the three aforementioned models of bisexuality predict different patterns of change, in different domains. For example, if bisexuality is simply a third “type” of sexual orientation, along with heterosexuality and homosexuality (Firestein, 1996; Snyder, Weinrich, & Pillard, 1994), then women’s attractions themselves should remain relatively stable, even if her behavior and identity fluctuate as a result of situational or social factors.

Yet, stability should not be observed if bisexuality is a temporary stage. If most bisexuals are, in fact, either (a) gay–lesbian individuals who have not yet fully accepted their same-sex sexuality or (b) heterosexual individuals temporarily experimenting with or confused about same-sex relationships (for a review, of these perspectives see Blumstein & Schwartz, 1977; Goore & Haber, 1977; Kitzinger, 1995; MacDonald, 1981), then as time goes on, bisexuals should eventually revert to exclusive patterns of behavior and attraction (either toward the same sex or the other sex), accompanied by adoption of heterosexual or lesbian labels.

Perhaps the broadest and most flexible conceptualization of bisexuality views it as a strong manifestation of all individuals’ capacities for relatively malleable, situation-dependent, socially constructed sexual desires (Baumeister, 2000; Blumstein & Schwartz, 1990; Money & Tucker, 1975; Rust, 1992, 1993). Critics of the rigid categorization of individuals as “gay/lesbian,” “heterosexual,” and (now) “bisexual” have a long history. Kinsey, of course, famously argued that “The world is not to be divided into sheep and goats” (Kinsey, Pomeroy, & Martin, 1948, p. 639) and that same-sex and other-sex desires varied along a continuous dimension. More recently, this point of view has been articulated by researchers emphasizing the flexible, socially constructed nature of human sexuality (Blumstein & Schwartz, 1990; Golden, 1987; Kitzinger & Wilkinson, 1995; Rust, 1992, 1993). As Paul (1985) succinctly summarized, “There is far more variability and fluidity in many people’s sexual patterns than theoretical notions tend to allow, suggesting that researchers have imparted an artificial consistency to an inchoate sexual universe” (p. 21).

This may be particularly true with respect to women, given increasing evidence that women’s desires are even more situation dependent and less “category specific” than those of men (Baumeister, Catanese, & Vohs, 2001; Chivers, Rieger, Latty, & Bailey, 2005; Diamond, 2003b; Laumann et al., 1994; Lippa, 2006). Hence, variable patterns of same-sex and other-sex desire and behavior may emerge in any woman over time, and might simply be more pronounced among the subset of women who identify as bisexual. According to this view, the distinction between lesbianism and bisexuality is a matter of degree rather than kind, and women’s adoption of a bisexual versus lesbian identity may have more to do with her self-concept, ideology, and intimate relationships than with her sexual “essence” (Golden, 1996; Rust, 1993).

Previous Longitudinal Research

Is there any evidence that bisexual women’s attractions, behaviors, and identities are, in fact, less stable over time than those of lesbians? Up until now, the only longitudinal studies of same-sex sexuality have been relatively short term (Dickson, Paul, & Herbsman, 2003; Pattatucci & Hamer, 1995; Rosario, Schrimshaw, Hunter, & Braun, 2006; Stokes, Damon, & McKirnan, 1997; Stokes, McKirnan, & Burzette, 1993; Weinberg & Williams, 1988), and therefore it is difficult to discern the overall prevalence and magnitude of change in different domains among bisexual versus lesbian women. For example, Pattatucci and Hamer (1995) collected 18-month follow-up data from 175 lesbian, bisexual, and heterosexual women recruited from lesbian/gay/bisexual organizations. Unfortunately, the authors averaged respondents’ Kinsey ratings (i.e., ratings on a 0 to 6 scale, with 0 representing exclusive heterosexuality and 6 representing exclusive same-sex sexuality) of sexual attraction, fantasy, behavior, and self-identification, thereby precluding comparisons between changes in different dimensions. The authors found fairly little change over the 18-month assessment period: Approximately 80% of their sample maintained the same rating, and those who changed ratings typically only did so by one point.

Stokes and his colleagues (Stokes et al., 1997, 1993) followed 216 bisexual men (recruited from gay/lesbian/bisexual community resources) over a 1-year period. They found that about one third changed Kinsey ratings in a more homosexual direction, and 17% changed in a more heterosexual direction. Longer follow-ups were conducted by Dickson et al. (2003), who sampled a cohort of approximately 1,000 New Zealanders born in the early 1970s. Over the 5-year assessment period, they found that nearly 30% of the men who reported ever having experienced same-sex attractions underwent a shift in their attractions between age 21 and 26, and two thirds of these changes were toward the same sex. Among women, about 45% of the women who had ever experienced a same-sex attraction reported a change in their attractions, and over 80% of these changes were toward the same sex.

Weinberg and colleagues (1994) also assessed change over a 5-year interval (1994), but their sample was fairly small (N = 55) and self-selected, comprising individuals who were active participants in San Francisco’s newly emergent bisexual community in the early 1980s. They found that approximately two thirds of their respondents reported changes in their self-reported ratio of same-sex to other-sex attractions over the 5-year period, and 85% reported changes in their ratio of same-sex to other-sex sexual behavior. A little over half of these changes were toward the same
sex, and about 60% were 1-Kinsey point in magnitude. Rosario and colleagues (2006) examined changes in self-identification among 156 urban youths, nearly 80% of whom were ethnic minorities (in contrast to the other studies, which sampled mainly White individuals). Over a 1 year period, about half the youths who had been bisexualy identified at baseline transitioned to lesbian/gay labels, whereas only 7% of the lesbian/gay youths transitioned to bisexual labels.

Yet, each of these studies has shortcomings that make it difficult to interpret the findings, such as (a) short follow-up intervals, which may not be long enough for the full range of potential variability to become apparent; (b) the lack of direct comparisons between changes experienced by bisexual and lesbian women; (c) failure to differentiate between—or directly compare—changes in attractions versus behavior versus identity; (d) failure to include individuals who experience same-sex attractions but do not identify as gay/lesbian/bisexual, many of whom reported experiencing bisexual attractions; and (e) failure to assess other developmental and social factors that might influence longitudinal patterns of attraction, behavior, and identity. The present study aimed to correct these shortcomings and to provide a more comprehensive portrait of long-term stability and change in bisexual and lesbian women’s attractions, behaviors, and identities.

The Present Study

Nearly 80 young sexual-minority women, identified as lesbian, bisexual, or unlabeled, have been assessed five times over a 10-year period, beginning in late adolescence and following through to early adulthood. The unlabeled women merit discussion. The scant research available on such individuals suggests that they typically experience attraction to both sexes (Diamond, 1998; Laumann et al., 1994; Savin-Williams, 2005) but decline to label their sexuality either because they are still engaged in the process of sexual questioning or because they find the existing range of sexual identity categories, and the process of categorization altogether, to be limiting and restrictive. Hence, long-standing questions about the “true nature” of bisexual individuals’ sexuality apply equally as well to unlabeled individuals. Accordingly, the hypotheses below refer to bisexual/unlabeled women as a single category. All data analyses, however, treat them as separate groups in order to permit investigation of the (as yet poorly understood) similarities and differences between them.

At each assessment, respondents provided detailed information on their sexual identities, attractions, behaviors, and their social and familial relationships. Using these data, I examine the evidence for the following conceptualizations of bisexuality:

3. Bisexuality as a heightened capacity for fluidity: This model suggests that some degree of fluidity in sexuality is a general feature of female sexuality, which may simply be stronger among bisexual women. Accordingly, there should be overlap and change in the attractions, behaviors, and identities of bisexual/unlabeled and lesbian women, although more so in the former group. Additionally, because the passage of time should increase women’s awareness of their own capacity for fluidity (as they encounter relationships and situations that facilitate variation in their sexuality), transitions to bisexual or unlabeled identities should be more likely over the long term than transitions away from such identities.

Method

Participants

Participants were 79 nonheterosexual women between the ages of 18 and 25 years who were initially interviewed as part of a longitudinal study of sexual identity development among young women (Diamond, 1998, 2000, 2003a, 2005b). The original sample contained 89 women; 10 women could not be located for follow-up. Four follow-up interviews were conducted over the phone, each approximately 2 years apart. Initial sampling took place across a wide range of settings, including lesbian, gay, and bisexual community events (i.e., picnics, parades, social events) and youth groups in two moderately sized cities and a number of smaller urban and rural communities in central New York state (35% of sample); classes on gender and sexuality issues taught at a large private university in central New York (36%); and lesbian, gay, and bisexual student groups at a large private university, a large public university, and a small, private, women’s college in central New York (29%). None of the study’s findings were found to vary as a function of recruitment site.

This sampling strategy has known limitations: For example, organized community groups and activities tend to underrepresent sexual-minority individuals who do not openly identify as lesbian, gay, or bisexual. Although this is less of a problem when recruiting from college courses on gender and sexuality, such courses typically overrepresent White, highly educated, upper-middle-class women. In all, 85% of respondents were White, 5% African American, 9% Latina, and 1% Asian American. Table 1 presents additional background characteristics of the sample, stratified by Time 1 [T1] identity labels: socioeconomic status (SES) when growing up (as described by respondent); educational attainment by 2005; history of parental divorce; whether one’s immediate family currently disapproved of her sexuality; and whether one had
directly experienced antigay stigmatization, harassment, and fear of violence. T1 lesbians were more likely to report antigay stigmatization, harassment, and fear of violence, $\chi^2(2, N = 79) = 8.1$, $p < .02, w = .5$. Also, as presented in the first empirical report on this sample (Diamond, 1998), there were no group differences in recollected age of first same-sex attractions ($M = 14.9, 95\%$ confidence interval [CI] 14.2, 15.7) or recollected age of first sexual questioning ($M = 16.0; 95\%$ CI 15.4, 16.5).

In each setting, the principal investigator described the nature and aims of the research, explained the selection criteria (rejection or questioning of heterosexuality identification), and distributed flyers describing the research. Interested participants provided their names and phone numbers to the principal investigator at that time or contacted the principal investigator by phone or electronic mail. Ninety-five percent of women attending lesbian, gay, or bisexual youth/students or community events volunteered for the study; those who declined to volunteer cited lack of interest as the reason. Response rates for college classes on gender and sexuality minority populations, women who are uncomfortable with their sexuality or with disclosing personal details about their sexual questioning are inestimable because it is unknown how many students in each class met the selection criteria. As with all research on sexual orientation, women were given the opportunity to revise their answers to any process of sexual questioning. This information is relevant to the participant’s choosing, usually her home. Because of the sensitivity of the subject matter, interviews were not tape-recorded. Detailed notes were taken during the interview by the primary investigator and transcribed immediately afterward. The primary investigator reinterviewed participants in 1997 (Time 2 [T2]), 2000 (Time 3 [T3]), 2003 (Time 4 [T4]), and 2005 (Time 5 [T5]). The follow-up interview followed a standard script reassessing the major variables assessed at T1 and lasted between 20 and 30 min. Verbatim transcriptions were taken of the T2 interviews while they were being conducted; the T3, T4, and T5 interviews were tape-recorded and transcribed.

Of the participants, 4 lesbians, 1 bisexual, and 4 unlabeled participants could not be relocated at T2. At T3, an additional 3 lesbians and 1 bisexual could not be located, but the 4 unlabeled women who had been missing at T2 were successfully recontacted. Two respondents could not be recontacted between T3 and T4 (1 had identified as unlabeled and the other as bisexual at T1). One T1 lesbian who had been lost between T2 and T3 was successfully recontacted. None of the participants did so. At the close of each interview, women were given the opportunity to revise their answers to any of the questions or to add additional remarks. As described in the first report on this sample (Diamond, 1998), T1 interviews assessed the timing and context of women’s initial process of sexual questioning. This information is relevant to the present analyses because of long-standing stereotypes that women whose sexual questioning is triggered by environmental factors are less “authentically” gay, and therefore more likely to revert to heterosexuality over time, than women whose questioning is triggered by same-sex attractions (reviewed in Diamond, 2006a). The factors that triggered women’s questioning were coded into the following categories: (a) Exposure to facilitative environment, which included meeting, hearing about, or otherwise learning about lesbian/gay/bisexual people; discovering that a friend had

### Table 1

**Characteristics of Sample, Stratified by Time 1 Identity Labels and by Identity Change Between 1995 and 2005**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Lesbian $n$ (%)</th>
<th>Bisexual $n$ (%)</th>
<th>Unlabeled $n$ (%)</th>
<th>Changed identity $n$ (%)</th>
<th>Kept identity $n$ (%)</th>
<th>Total $n$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES growing up$^b$</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Working-lower</td>
<td>20 (63)</td>
<td>6 (25)</td>
<td>6 (26)</td>
<td>16 (31)</td>
<td>16 (57)</td>
<td>32 (41)</td>
</tr>
<tr>
<td>Middle</td>
<td>8 (25)</td>
<td>11 (46)</td>
<td>10 (43)</td>
<td>22 (43)</td>
<td>7 (25)</td>
<td>29 (37)</td>
</tr>
<tr>
<td>Upper</td>
<td>4 (13)</td>
<td>7 (29)</td>
<td>7 (30)</td>
<td>13 (25)</td>
<td>5 (18)</td>
<td>18 (23)</td>
</tr>
<tr>
<td>At least some postcollege education</td>
<td>19 (59)</td>
<td>15 (63)</td>
<td>13 (65)</td>
<td>30 (59)</td>
<td>19 (68)</td>
<td>49 (62)</td>
</tr>
<tr>
<td>Parents were divorced$^b$</td>
<td>13 (41)</td>
<td>4 (17)</td>
<td>6 (26)</td>
<td>11 (22)</td>
<td>12 (44)</td>
<td>23 (29)</td>
</tr>
<tr>
<td>Experienced antigay stigma and harassment$^a,b$</td>
<td>22 (69)</td>
<td>9 (38)</td>
<td>8 (35)</td>
<td>21 (41)</td>
<td>18 (65)</td>
<td>39 (49)</td>
</tr>
<tr>
<td>Family disapproval of sexuality</td>
<td>13 (41)</td>
<td>10 (42)</td>
<td>10 (43)</td>
<td>19 (37)</td>
<td>14 (50)</td>
<td>33 (42)</td>
</tr>
<tr>
<td>Questioning via exposure to facilitative environment</td>
<td>7 (22)</td>
<td>12 (50)</td>
<td>11 (48)</td>
<td>29 (57)</td>
<td>8 (27)</td>
<td>30 (38)</td>
</tr>
</tbody>
</table>

Note. SES = socioeconomic status.
$^a$Significant association with Time 1 identity, $p < .05$; $^b$Significant association with identity change, $p < .05$.  

T1 assessments were scripted, face-to-face interviews conducted with each woman in 1995 by the primary investigator, approximately 90% of which lasted between 1 and 1.5 hr. When possible, interviews were conducted in a university office. When this was not feasible, interviews were conducted at a location of the participant’s choosing, usually her home. Because of the sensitivity of the subject matter, interviews were not tape-recorded. Detailed notes were taken during the interview by the primary investigator and transcribed immediately afterward. The primary investigator reinterviewed participants in 1997 (Time 2 [T2]), 2000 (Time 3 [T3]), 2003 (Time 4 [T4]), and 2005 (Time 5 [T5]). The follow-up interview followed a standard script reassessing the major variables assessed at T1 and lasted between 20 and 30 min. Verbatim transcriptions were taken of the T2 interviews while they were being conducted; the T3, T4, and T5 interviews were tape-recorded and transcribed.

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same-sex attractions; discussing issues related to sexual orientation with friends; dating a bisexual man; or becoming the object of another woman’s sexual interest; (b) Same-sex attractions, which included awareness of sexual desires for one or more women, unusual closeness to one or more women, fascination with women’s bodies or women’s beauty, intentional sexual contact with another woman, distinct disinterest in men, or a strong emotional attraction to a specific woman. Coders were trained to .90 reliability over a period of 10 hr per judge. Cohen’s kappa, calculated for approximately 20% of the total sample, was .79.

To assess the general distribution of their same-sex attractions, women were asked at each interview to report the percentage of their total attractions that were directed toward the same sex on a day-to-day basis; separate estimates were provided for sexual versus emotional attractions. This yields an estimate of the relative frequency of same-sex versus other-sex attractions, regardless of the intensity of these attractions or the total number of sexual attractions experienced on a day-to-day basis. This measurement approach has been criticized for its implicit presumption that same-sex sexuality varies in inverse proportion to other-sex sexuality (Shively & DeCecco, 1977), but prior research (Rust, 1992; Sell & Petrilio, 1996) has indicated that sexual-minority individuals themselves use this proportional approach when describing variation in sexual orientation. Previous studies have found that self-reported percentages of same-sex versus other-sex attractions show excellent test–retest reliability (detailed in Diamond, 2000).

To assess sexual behavior, participants were asked to report the total number of men and women with whom they engaged in sexual contact (defined as any sexually motivated intimate contact) between T1 and T2, T2 and T3, T3 and T4, and T4 and T5. This information was translated into percentages so that 100% represents exclusive same-sex behavior, and 0% represents exclusive other-sex behavior.

### Results

**Change in Identity**

Except where indicated, all significance tests used an alpha of 0.05. In all, 32% of women changed identities from T1 to T2, 25% from T2 to T3, 30% from T3 to T4, and 28% from T4 to T5 (these percentages were not significantly different). By the 10-year point, 67% of participants had changed their identities at least once since T1, and 36% had changed identities more than once. As shown in Table 1, there was no association between identity change and SES when growing up, educational attainment, or the context of a woman’s first questioning. Women who changed identities were, however, less likely to have had divorced parents, $\chi^2(1, N = 79) = 4.4$, $p < .05$, $w = .4$; less likely (at the trend level) to have come from middle- or upper-class backgrounds, $\chi^2(2, N = 79) = 5.0$, $p < .05$, $w = .4$; and less likely to report antigay stigmatization/harassment/fear of violence, $\chi^2(1, N = 79) = 3.8, p < .05, w = .4$. They were also no younger when they enrolled in the study than women with stable identities ($t = .46, ns, M_{stable} = 20; 95\% CI 19.1, 20.9; M_{change} = 19.7; 95\% CI 19.3, 20.3$).

As noted earlier the transitional stage model of bisexuality would suggest that over the course of the study, most bisexual and unlabeled women will eventually switch to either heterosexual or lesbian identities. Bisexual and unlabeled women were, in fact, more likely to change their identity labels than were lesbian women over the 10 years of the study, $\chi^2(2, N = 79) = 8.3, p < .02, w = .5$. In all, 73% of T1 bisexuals and 83% of T1 unlabeled women subsequently changed their identities, compared with 48% of T1 lesbians. Yet, the nature of these changes was not consistent with the transitional stage model. In particular, bisexual and unlabeled women were more likely to switch between bisexual and unlabeled identities than to settle on lesbian or heterosexual labels. Of the T1 bisexuals, 92% identified as either bisexual or unlabeled 10 years later; only 1 claimed a lesbian label at T5, and 1 claimed a heterosexual label. Of the T1 unlabeled women, 61% identified as bisexual or unlabeled 10 years later; 5 women claimed a lesbian label at T5, and 5 claimed a heterosexual label. Notably, the total percentage of respondents who switched to a heterosexual identity from a bisexual or unlabeled identity during the study was larger—17%—but over half these women switched back to a bisexual or unlabeled identity by T5 (of course, even women who maintained heterosexual identifications represent a fairly atypical form of heterosexuality, given that they acknowledge current and prior same-sex attractions). Also, an additional repeated measures analysis conducted only among the bisexual/unlabeled women found no interaction between identity change and patterns of change over time in same-sex attractions; in other words, women who switched to lesbian labels did not show significant increases in their same-sex attractions over time, and those who switched to heterosexual labels did not show significant decreases, $F(8, 168) = .74, ns$. Rather, at T5, they showed largely the same pattern of same-sex and other-sex attractions that they reported at the beginning of the study.

These findings are therefore more consistent with the model of bisexuality as a stable identity than a transitional stage. Further evidence for the “stable identity” model is provided by the fact that the total percentage of respondents identifying as bisexual or unlabeled did not decline over the five waves of the study, as would be expected if women were progressively transitioning out of these labels. Rather, the percentage of respondents identifying as bisexual or unlabeled at the first, second, third, fourth, and fifth assessments was, respectively, 57%, 47%, 51%, 57%, and 58%.

The “bisexuality as heightened fluidity” perspective suggests that most women possess the capacity to experience sexual desires for both sexes, under the right circumstances. Hence, as time goes on, progressively more women should have the opportunity to become aware of this capacity and may adopt bisexual/unlabeled identities as a result. Consistent with this view, there were a greater number of transitions to (or between) bisexual and unlabeled identities than to either lesbian or heterosexual identities over the 10 years of the study. Table 2 presents the number of lesbian, bisexual, and unlabeled women maintaining, adopting, or relinquishing each type of identity from T1 to T5. In all, two thirds of identity changes involved adopting either a bisexual or unlabeled identity, whereas about half as many (37%) involved adopting a lesbian or heterosexual identity. In fact, by the 10-year point, fully 80% of the sample had claimed a bisexual or unlabeled identity at some point (whereas 56% of the sample claimed a lesbian label at some point).

Because some models of sexual fluidity (Baumeister, 2000; Diamond, 2003b; Peplau, Spalding, Conley, & Veniegas, 1999) emphasize the importance of relational contexts in prompting transitions in desire and identity, additional analyses were con-
ducted to examine women’s patterns of sexual involvement with men and women immediately prior to their identity changes. These analyses revealed that each of the bisexual/unlabeled women who switched to a heterosexual identity at some point during the study, and two thirds of the lesbians who switched to a bisexual/unlabeled identity, had sexual contact with at least one man during the 2 years prior to the identity change. Thirty percent of the T1 lesbians ended up developing full-blown romantic relationships with men, and all of these women switched to unlabeled or bisexual identities. Of the women who adopted lesbian identities, 94% had sexual contact with at least one woman during the 2 years prior to the identity change.

Hence, women appeared to be adopting labels consistent with their relationship patterns. Notably, however, women’s definitions of lesbianism appeared to permit more flexibility in behavior than their definitions of heterosexual identity. In all, 76% of the women who switched to lesbian labels pursued sexual contact with both men and women during the 2 years prior to the identity change, compared with 30% of women who switched to heterosexual labels. This provides further support for the notion that female sexuality is relatively fluid and that the distinction between lesbian and bisexual women is not a rigid one.

For example, of the women who identified as lesbian at T5, 15% reporting having sexual contact with a man within the previous 2 years. In contrast, none of the women who had settled on a heterosexual label by T5 reported having sexual contact with a woman within the previous 2 years.

Table 2

<table>
<thead>
<tr>
<th>Time period</th>
<th>Identity label</th>
<th>Maintained n (%)</th>
<th>Relinquished n (%)</th>
<th>Adopted n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1–T2</td>
<td>Lesbian</td>
<td>29 (35)</td>
<td>6 (7)</td>
<td>10 (12)</td>
</tr>
<tr>
<td></td>
<td>Bisexual</td>
<td>19 (23)</td>
<td>7 (8)</td>
<td>9 (11)</td>
</tr>
<tr>
<td></td>
<td>Unlabeled</td>
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Note. All percentages calculated with respect to the total number of women providing data at each follow-up assessment: 84 at Time 2 (T2), 80 at Time 3 (T3), 79 at Time 4 (T4), and 79 at Time 5 (T5). Percentages for total number of changes are calculated with respect to the total number of identity transitions recorded during the study, which was 94.

Figure 1. Percentage of same-sex physical attractions reported by T1 lesbians, T1 bisexuals, and T1 unlabeled women across the five assessments. To test for group differences in changes in attractions, a repeated measures analysis of variance (ANOVA) was conducted, with T1 sexual identity as the between-subjects factor and percentage of same-sex physical attractions at T1, T2, T3, T4, and T5 as the within-subjects factor. The results revealed significant between-subjects effects of sexual identity on overall level of attraction, F(2, 76) = 26.0, p < .001, f² = .25, with the lesbian group showing consistently higher percentages of same-sex attractions than the bisexual and unlabeled groups (both Bonferroni corrected p < .001). There was also a significant within-subject effect of time, F(4, 70) = 4.0, p = .005, f² = .02, and a trend-level interaction between sexual identity and time, F(8, 140) = 1.88, p = .067, f² = .02. This interaction effect was significant when recomputed after combining the bisexual/unlabeled groups, as shown in Figure 1, F(4, 71) = 2.8, p = .03, f² = .02. Follow-up polynomial contrasts were conducted to explore the interaction effect, which revealed that although there was a significant linear decline in same-sex attractions from T1 to T5 among the lesbians, F(1, 73) = 6.9, p = .01, f² = .09, this was not the case for the bisexual or unlabeled women, both Fs(1, 73) < 1.5, ns. The change in attractions among the lesbian group is consistent with the “bisexuality as heightened fluidity” model, which predicts that most women possess some capacity for non-
exclusive attractions, which should become progressively more evident as time goes by. Notably, however, when this analysis was repeated only among the bisexual/unlabeled women, it was found that those who eventually adopted lesbian identities did not show progressively increasing same-sex attractions over time, and those who eventually adopted heterosexual identities did not show progressive decreases. Thus, contrary to the transitional stage model, both groups of women continued to report bisexual patterns of attraction in T5, despite having given up bisexual/unlabeled identities.

The “bisexuality as heightened fluidity” model suggests that bisexual and unlabeled women should undergo more overall fluctuation in their attractions over time. To test this prediction, a repeated measures analysis was conducted using absolute change scores between T1–T2, T2–T3, T3–T4, and T4–T5 as the dependent variables. The results revealed a significant sexual identity effect, $F(2, 71) = 3.94, p = .03, f^2 = .08$; there was no significant within-subjects effect of time and no interaction between time and sexual identity. As expected, follow-up contrasts revealed that lesbian women had significantly smaller absolute changes in their attractions from assessment to assessment ($M = 11.1$, 95% CI 10.6, 11.6) than did the bisexual women ($M = 18.1$, 95% CI 17.4, 18.8; Bonferroni-corrected $p = .02$). The unlabeled women were intermediate between these groups ($M = 13.5$, 95% CI 12.6, 14.4) and were not significantly different from either.

To determine whether factors other than sexual identity related to change over time, a series of additional models was computed, including each of the background characteristics listed in Table 1. There were no associations between change in same-sex attractions and parental divorce, family SES, educational attainment, family disapproval of one’s sexuality, experience with antigay stigma/harassment, or the context of first questioning.

### Change in Sexual Behavior

The bottom panel of Figure 1 presents the percentage of women’s sexual contacts pursued with the same sex across the five assessments (i.e., between T1 and T2, T2 and T3, and so on). To test for changes in these percentages over time, a repeated measures ANOVA was computed, with T1 sexual identity as the between-subjects factor and percentage of same-sex sexual contact between successive assessments as the within-subjects dependent variable. The results revealed significant between-subjects effects of sexual identity, $F(2, 74) = 17.4, p < .001, f^2 = .32$, with the lesbian group reporting greater overall percentages of sexual contact with women versus men ($M = 81.2$, 95% CI 79.5, 82.9) than the bisexual ($M = 36.3$, 95% CI 33.9, 38.7) and unlabeled women ($M = 45.4$, 95% CI 42.7, 48.1), and the unlabeled women having greater percentages of same-sex versus other-sex contact than the bisexual women (all Bonferroni-corrected $p < .001$). There was also a significant within-subject effect of time, $F(3, 72) = 4.7, p < .005$ (but no interaction with sexual identity), $f^2 = .02$. Specifically, a follow-up polynomial contrast detected a significant linear decline in the ratio of same-sex to other-sex contact across the sample as a whole, $F(1, 74) = 12.5, p < .001, f^2 = .17$. This is consistent with the “bisexuality as heightened fluidity” model, as it suggests that with the passage of time, women are increasingly likely to pursue sexual behavior with both sexes rather than with only one sex.

To determine whether factors other than sexual identity related to change over time, a series of additional models was computed, including each of the background characteristics listed in Table 1. There were no effects associated with parental divorce, family SES, educational attainment, family disapproval, or experience with stigma/harassment. There was, however, a significant association between the context of a woman’s first questioning and the degree of decline in same-sex behavior, $F(3, 213) = 3.32, p < .02, f^2 = .32$. Follow-up polynomial tests found a significant decline among women whose first attractions were prompted by exposure to a facilitative environment, $F(1, 71) = 15.4, p = .0002, f^2 = .19$, but not among women whose first questioning was prompted by same-sex attractions, $F(1, 71) = 1.4, ns$. This is consistent with the notion that exposure to facilitative environments may temporarily heighten opportunities for same-sex contact among women who otherwise might not have pursued such opportunities.

The notable fact that there was a consistent decline in same-sex sexual behavior among all women from 1995 to 2005 that was not matched by a parallel decline in attractions (except among the T1 lesbians) is shown in Figure 2. This figure presents two histograms—one for 1995 and one for 2005—displaying the proportion of study participants reporting different percentages of same-sex attractions and same-sex sexual behavior. In both time periods, same-sex attractions are fairly evenly distributed across the total possible range, showing the overall prevalence of bisexual patterns of attraction. As for behavior, in 1995, it is also fairly evenly distributed across the possible range, with most women pursuing sexual contact with both men and women. Yet by 2005, a bimodal distribution has emerged, with most women pursuing either exclu-
sively same-sex behavior or predominantly other-sex behavior. This is largely attributable to the fact that by 2005, most women were involved in long-term (i.e., over 1 year in length) monogamous relationships (70% of the T5 lesbians, 89% of the T5 bisexuals, 85% of the T5 unlabeled women, and 67% of the T5 heterosexuals), and hence were pursuing all of their sexual contact with a single partner. Of the 31 women who reported that 100% of their sexual contact was pursued with women, 70% were currently involved in long-term same-sex relationships, and an additional 16% were involved in same-sex relationships lasting less than 1 year. Of the 27 women reporting exclusively other-sex sexual contact, all but 1 was involved in a long-term relationship with a man.

Interestingly, the fact that so many bisexual and unlabeled women ended up in long-term relationships contradicts the widespread stereotype that bisexual women are unable or uninterested in long-term monogamy (ostensibly because a relationship with one sex would not satisfy their desire for the other sex). To the contrary, T1 bisexuals were actually more likely than lesbian and unlabeled women to be involved, by 2005, in relationships lasting at least 5 years, \( \chi^2(2, N = 79) = 6.2, p < .05, w = A \). In all, 63% of bisexual women were involved in such relationships, compared with 35% of lesbians and 30% of unlabeled women.

**Discussion**

This research provides the first empirical examination of competing assumptions about the nature of bisexuality, both as a sexual identity label and as a pattern of nonexclusive sexual attraction and behavior. The findings demonstrate considerable fluidity in bisexual, unlabeled, and lesbian women’s attractions, behaviors, and identities and contribute to researchers’ understanding of the complexity of sexual-minority development over the life span.

**Bisexuality as a Transitional Stage**

The notion that bisexuality is a transitional stage that women adopt “on the way” to lesbian identification, or is an experimental phase among heterosexual women, is not consistent with the results of this study. Although women who entered the study with bisexual or unlabeled identities were significantly more likely to subsequently change their identities than were lesbian women (an effect that was large by conventional standards), most of these changes were between bisexual and unlabeled identities, and there was no evidence for large-scale shifts toward either lesbianism or heterosexuality. By the 10-year point, only 1 of the T1 bisexuals and 5 of the T1 unlabeled women had settled on a lesbian label; the same number settled on a heterosexual label. Furthermore, these women showed no evidence of progressive changes in their ratio of same-sex to other-sex attractions over the 10 years of the study. They were (and remain) sexually attracted to both men and women, but they label these attractions differently now than before.

Additional evidence against the transitional stage model comes from the fact that the overall number of women adopting bisexual or unlabeled identities did not decline over the course of the study. If bisexuality were a temporary stage, then one would expect fewer and fewer women to maintain these identities as they moved into adulthood. Yet, to the contrary, the percentage of women claiming a bisexual or unlabeled identity hovered between 50% and 60% at each wave of the study. Even more interesting, by the end of the study, 80% of women had adopted a bisexual or unlabeled identity at some point in time. These results do not rule out the possibility that some women adopt *bisexual* as a transitional label, but this pattern appears exceptional rather than normative.

This, of course, raises questions about the status of the unlabeled category, which proved (surprisingly) to be the most frequently adopted identity in the entire study. The present results suggest that women may adopt this label for different reasons at different times. Most women who adopted the unlabeled identity at T1 relinquished it before T2, suggesting that it initially served as a marker of ongoing sexual questioning. Yet, at every subsequent assessment, more women adopted an unlabeled identity than relinquished it. This suggests that *unlabeled* serves a unique function in the present sexual taxonomy, in some cases representing a state of “being attracted to the person, not the gender” (Diamond, 2006b), in other cases, representing an openness to future change in erotic experience (Diamond, 2005c; Savin-Williams, 2005), and in still other cases, representing patterns of “almost-but-not-quite-exclusive” same-sex attractions that women may consider inconsistent with both lesbian and bisexual labels. Hence, although individuals with unlabeled identities have been historically underrepresented in research on sexual orientation, these findings indicate that researchers must begin to systematically analyze these individuals’ distinct social-developmental trajectories in order to build accurate models of sexual identity development over the life course.

**Bisexuality as a Distinct Orientation and/or a Capacity for Fluidity**

The present results provide evidence for both the “third orientation” and “heightened fluidity” models of bisexuality. The “third orientation” model would suggest that bisexual women’s patterns of sexual attraction are stable over time, and notably distinct from those of lesbian women. Evidence for this view is provided by the fact that T1 bisexual and unlabeled women reported consistently lower percentages of same-sex attractions than did the lesbian women (an effect that was moderate in size by conventional standards), and their average percentage of same-sex (relative to other-sex) attractions did not change over time. Nonetheless, bisexual and unlabeled women showed larger absolute fluctuations in their attractions from assessment to assessment than did the lesbian women (although this was a small effect). In other words, bisexual women’s attractions varied over time, but these variations centered around a relatively stable set point. One potential interpretation, then, is that both the “third orientation” and “heightened fluidity” models of bisexuality are correct; that is, bisexuality may best be interpreted as a stable pattern of attraction to both sexes in which the specific balance of same-sex to other-sex desires necessarily varies according to interpersonal and situational factors. This is consistent with the observations of Weinberg et al. (1994), who noted that bisexual attractions entail a “lack of closure” that engenders fluctuations in attraction and behavior as individuals progress through different environments and relationships. This view is echoed in Peplau and colleagues’ intimate careers model of female sexual orientation (Peplau et al., 1999), which suggests that contextual changes over the life course (such as intimate relation-
ships) can redirect women’s sexual-developmental pathways at any point.

The fact that such changes were observed in both lesbian and bisexual/unlabeled women supports the notion of generalized sexual fluidity. In fact, T1 lesbians reported progressively more “bisexual” patterns of attraction and behavior as the study progressed (although such changes were small in magnitude), which explains why transitions to bisexual/unlabeled identities were more common than transitions away from such labels. By T5, 60% of T1 lesbians had had sexual contact with a man, and 30% had been romantically involved with a man. Many of these women resolved the resulting contradiction between their lesbian identity and their other-sex attractions/behavior by switching to unlabeled or bisexual identities.

Such “post-coming-out” identity changes challenge the long-standing assumption that sexual identity questioning is permanently resolved as soon as the individual replaces his or her initial heterosexual identity with a gay/lesbian/bisexual identity. For nently resolved as soon as the individual replaces his or her initial standing assumption that sexual identity questioning is permanent. Similarly, 90% of the women who switched to a lesbian label from an unlabeled or bisexual identity reported sexual involvement with women in the 2 years prior to the change. This suggests that when selecting an appropriate identity label, or subsequently altering this label, women seek to maximize fit with their prevailing identity change among younger women, women with a history of family disruption, and women who have experienced antigay stigmatization. But this was not the case.

Instead, women’s identity changes reflected their own shifting experiences: All of the women who switched to a heterosexual identity reported having had sexual contact with men in the 2 years immediately prior to the change, and this was also the case for two thirds of the lesbians who switched to bisexual/unlabeled identities. Similarly, 90% of the women who switched to a lesbian label from an unlabeled or bisexual identity reported sexual involvement with women in the 2 years prior to the change. This suggests that when selecting an appropriate identity label, or subsequently altering this label, women seek to maximize fit with their prevailing pattern of attraction and behavior.

Yet, one of the interesting findings of the present study concerned the progressively increasing discrepancy between women’s ratios of same-sex to other-sex attraction and their ratio of same-sex to other-sex behavior as they grew older. At the beginning of the study, when women were in their teens and early 20s, they tended to be involved in multiple successive relationships, and their ratio of same-sex to other-sex sexual contact tended to parallel their attractions. Yet 10 years later, most women had settled down into committed monogamous relationships (70% of the T5 lesbians, 89% of the T5 bisexuals, 85% of the T5 unlabeled women, and 67% of the T5 heterosexuals). As a result, regardless of whether their relative percentage of same-sex to other-sex attractions tended to be 25%, 50%, or 75%, their sexual behavior was often 100% same-sex or 100% other-sex. It is interesting that this finding provides a notable counterpoint to the popular stereotype that bisexual women are incapable of committing to a single partner. Not only did bisexual women tend to pursue exclusive, monogamous relationships over time, but they were more likely to do so than either unlabeled or lesbian women. By the 10-year point, more than 60% of the T1 bisexuals were involved in relationships lasting longer than 5 years, and 30% had undergone either conventional marriages or commitment ceremonies.

Conclusion

The findings of this research suggest that there are, in fact, appreciable boundaries between the long-term developmental trajectories of lesbian, bisexual, and unlabeled women, but these boundaries are relatively fluid. Hence, the present study supports the notion of bisexuality as a third type of sexual orientation and also supports the notion of bisexuality as a capacity for context-specific flexibility in erotic response. In contrast, the findings are inconsistent with the long-debated notion of bisexuality as a transitional stage or “phase.” Of course, this study is limited by its reliance on a small, exclusively female, disproportionately White and middle-class sample, and future research on larger and more diverse samples of sexual-minority women and men is important for determining the generalizability of the findings. Nonetheless, the results have important social and scientific implications. They contribute to researchers’ emerging scientific understanding of the basic nature and longitudinal development of female sexual orientation, and they provide critically important information for educators and clinicians attempting to understand the distinct challenges and meet the unique needs of bisexual individuals over the life course.

References


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