COMPONENTS OF SEXUAL ORIENTATION:
ATTRACTIONS, BEHAVIORS, AND IDENTITY LABELS

DISSERTATION

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By

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* * * * *

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ABSTRACT

Historically, theorists have conceptualized sexual orientation as a single, unified construct. More recently, various authors and researchers have begun to consider whether attraction could be conceptualized as consisting of multiple aspects. For the purposes of the present study, two measures were developed to assess these various components, which were conceptualized as physical sexual attraction, cognitive sexual attraction, and romantic/relationship attraction. The components of sexual orientation, attraction to women scale (the CSW) was designed to assess these components for participants’ attraction to women and the components of sexual orientation, attraction to men scale (the CSM) was designed to assess these for attraction to men. Incongruence in attraction to women (INC-women) and incongruence in attraction to men (INC-men), as well as overall incongruence (INC-overall), was calculated by summing the differences among various components. Participants were also asked about same-sex sexual behaviors (SSSB), sexual orientation identity, and attitudes towards lesbians and gays.

It was hypothesized that greater component incongruence would be associated with lower psychological well being. This was not largely supported in the present sample. It was also hypothesized that women, non-heterosexually identifying participants, and participants reporting SSSB would be higher on overall incongruence. This was supported for non-heterosexually identified participants, and a number of significant interactions among gender, sexual orientation label, and SSSB are noted for
INC-overall as well as INC-men and INC-women. Additionally, it was found that same-sex attraction and orientation was more strongly associated with SSSB for men than it was for women and that participants who reported having engaged in SSSB were more positive in their attitudes towards gays and lesbians. Finally, a number of comparisons are made between the current dataset and a prior data set regarding SSSB for men and women. Implications and interpretations of the findings are discussed.
Dedicated to Matt, my family, and my friends.
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CHAPTER 1

INTRODUCTION

One of the goals of research on sexual orientation has presumably been to better understand what makes this population unique. Among others, commonly posed questions have included the following: What are the effects of societal homonegativity on GLB people (e.g., Shidlo, 1994)? Are GLB adolescents more “at-risk” than their peers (e.g., Johnson and Johnson, 2000; Lock & Steiner, 1998)? and What is the typical course for a GLB person coming to terms with her sexuality (e.g., Cass, 1979; Fassinger & Miller, 1996). All of this work assumes implicitly that the construct of “sexual orientation” is a meaningful way of separating people into coherent groups with distinct characteristics. Sometimes this has meant making distinctions based on labels like gay male, lesbian, bisexual, and heterosexual or simply “not heterosexual” (e.g., Corbley, 2004). In other cases, researchers have used behavioral criteria (e.g., men who have sex with men or MSM). Whatever criterion is used, the assumption is that it is in some way a proxy for sexual orientation. If sexual orientation is valid as a singular construct then this distinction makes sense. In other words, if all aspects of one’s attractions to others are invariably unified and consistent, then it is logical to define research populations based
on sexual orientation. If, however, sexual orientation were multidimensional, doing so might not always make sense.

There is, in fact, both anecdotal and empirical evidence supporting the idea that interpersonal attraction can manifest in a number of ways. For example, when discussing attraction, people sometimes differentiate between romantic and sexual attraction (e.g., a woman states that she would be happy in a relationship with a woman but generally finds herself being sexually attracted to men). Recent qualitative and quantitative research also supports the idea that sexuality may consist of multiple components such as sexual behavior, physical sexual attraction, cognitive attraction, and romantic attraction (Hegna and Larsen, 2007; Diamond, 2005; Friedman, Silvestre, Gold, Markovich, Savin-Williams, Huggins, and Sell, 2004). This conceptualization could potentially lead to a more nuanced understanding of human sexuality, one that calls into question the socially constructed “binary” of Gay/Lesbian/Bisexual versus Heterosexual (Valocchi, 2005). In sum, instead of dividing people into two general categories, a multidimensional understanding of sexuality suggests a greater diversity of attractions and ultimately differences that are of degree rather than kind.

Previous authors have conceptualized sexuality beyond the heterosexual/homosexual binary. Alfred Kinsey’s work certainly did much to popularize the notion of sexual orientation as a continuum, though it was still treated as a unidimensional construct (Kinsey, Pomeroy, & Martin, 1948; 1953). Fritz Klein (1985;1990), a pioneer in the study of sexuality as multidimensional, designed the Klein Sexual Orientation Grid (KSOG) to assess various proposed components as well as their change over time and current vs. ideal. Other authors have also argued for adopting a more multidimensional
model of sexuality while concurrently describing the social forces that continually affirm and reify the status quo (e.g., Silenzio, 2003; Valocchi, 2005; Alderson, 2003; Hammack, 2005). Part of their argument is that there exist individuals who do not fit neatly into available social categories. Over the past two decades one group of such individuals has fought hard to revise the available categories: those who identify as bisexual. Historically, the dominant culture simply grouped bisexuals with gays and lesbians, and gays and lesbians generally assumed that bisexuals were actually gay/lesbian and just not fully “out.” Several researchers argue that many gays and lesbians continue to disavow bisexuality as a “radical” form of sexuality (Todd, 2003). There is also evidence that, compared to gay/lesbian individuals, bisexual individuals themselves tend to be less comfortable with their sexual orientation, which tends to be less integrated into their identity (Rosario, Schrimshaw, Hunter, & Braun, 2006) and that there is less societal support for the development of a bisexual identity than a gay/lesbian identity (Engler, Otis, Alary, Masse, Remis, Girard, et al., 2005; Doll & Beeker, 1996). In general, these studies suggest that not fitting into dominant social categories may have a negative effect on well-being. Clearly, more research is warranted to understand such effects. However, as conceptualizations of sexuality become more complex, it becomes increasingly difficult to define populations of interest. As stated by Weinrich and Klein (2002, p. 111), sexual orientation is “one of sexology’s thorniest concepts,” and though Klein’s (1985) KSOG offers a detailed look at various aspects of any one individual’s self-perceived sexual orientation, it is a difficult instrument to use in social science research because it included so many different variables.
One has sympathy for researchers of sexual orientation when it comes to defining their population. Without a clear idea of what or whom one is investigating, fruitful research is improbable. In his thoughtful book, *The New Gay Teenager*, Rich Savin-Williams cites (2005) a number of recent criticisms of the psychological study of sexuality. In addition to being critical of sexual orientation as a construct, many have been critical of some of the research questions being asked, pointing, for example, to an overemphasis on the negatives associated with being GLB. Savin-Williams (2005) argues that the collective work of many researchers has, to some extent, reified the idea of the troubled, depressed, and ultimately suicidal GLB adolescent. He suggests that while this research has been undertaken with the best of intentions (e.g., trying to bring attention and needed social services to at-risk, homeless “gay youth”) that it has ultimately helped to create a notion, both in the social sciences as well as in popular culture, that most same-sex attracted youth are destined to fall prey to any number of pitfalls and problems. Savin-Williams (2005) denounces the troubled gay youth stereotype and admonishes researchers for poor study methodology, arguing, specifically, that the samples of many studies exploring risk are by no means representative of all GLB identified people (pointing out, for example, that many such samples were recruited exclusively from inner-city drop-in centers). Also summarized by Savin-Williams (2005) are other researchers’ criticisms of the study of identity trajectories (the identity development models). Many have argued that such models are not reflective of the diversity of GLB experience. Savin-Williams (2005) agrees and points to the paucity of research in support of such models, suggesting that, as much as they have expanded our knowledge, such models have limited our understanding of GLB people.
Savin-Williams’ (2005) ultimate conclusion is that same-sex attracted youth (and by extension adults) are as varied as any social group in their demographics and their developmental paths. For some, because of societal homonegativity, having a same-sex orientation does have negative consequences for mental health. For many, resilience is more evident than risk. Developmental models seem to fit for some same-sex attracted youth but not for all or even most. For some, sexuality is central to the life course. For others, it is not. Savin-Williams (2005) believes that banality, rather than any particular risk, resilience, or exceptionality, is becoming the norm for many same-sex attracted youth.

To some extent, those in the field have thoughtfully considered these criticisms and have changed their methodology as well as their overall perspective in investigating this population. This is particularly true of qualitative researchers, whose paradigms not only allow for but deftly illustrate diversity and flexibility (e.g., Diamond, 2006). In addition, authors of non-empirical, theory-driven work have attempted to contextualize sexual orientation. Some have been particularly elegant and compelling in their exploration of the various ways culture and society construct sexuality and affect its expression (e.g., Silenzio, 2003; Valocchi, 2005; Alderson, 2003; Hammack, 2005). Quantitative researchers have also responded, but in doing so have largely exited the study of sexual orientation itself, instead pursuing studies of risk behavior and prevention and typically defining samples based on behavior or stated orientation (e.g., Solario, Swendeman, & Rotheram-Borus, 2003). This is not altogether surprising. Simply put, the diversity Savin-Williams (2005), Weinrich and Klein (2002), and others have noted is daunting to the quantitative researcher! As stated by Diamond (2005), the next step in
research on sexual orientation is to “pinpoint the multiple, interconnected mechanisms through which historically situated social contexts shape same sex and other-sex desires over the life course” (p. 295). This is useful, succinct advice, but it is also quite intimidating and helps to explain why some quantitative researchers may have been have been flummoxed of late. In recognizing the complexity of the problem, it has become increasingly difficult to develop testable hypotheses and rigorous methods with high internal validity that have any sort of external validity or applicability.

The recent work of Hegna and Larsen (2007) is a notable exception, representing an important and fresh contribution to the field. Instead of focusing on stated identities, the authors explore other aspects of sexual orientation, including sexual behavior, sexual attraction, and romantic attraction. Though purely quantitative, their work is still able to speak to the diversity of experience for same-sex attracted youth because no one is excluded from their analyses. The authors do not assume congruence among various aspects of sexual orientation, and everyone who referred to any same-sex attraction or experience was included but not assumed to be GLB. Youth in pilot studies reportedly found these types of questions (those that purposely do not reference chosen identities) to be “democratic” and “inclusive.” (p. 18) Indeed, Hegna and Larsen (2007) find that sexual behaviors and attractions are not always in line with one another (see literature review for a more thorough summary). Quantitative work on sexual orientation stalled partly because the topic and sample became increasingly difficult to define. The work of Hegna and Larsen (2007) is significant precisely because they do not try to define sexual orientation, and the selection of participants is thus neither contingent on the potentially limiting definitions of the researchers nor on the self-identification of the respondents,
both of which introduce potentially confounding variables. Instead, the authors are able to explore same-sex sexuality in general, as it occurs in a large sample of adolescents, and they obtain a rich data set. Their sample includes those whose sexuality is central to their identity and likely identify as GLB as well as those who do not. It includes youth who report same-sex romantic attraction but who report no sexual attraction, and vice-versa, as well as a number of other permutations concerning their variables of interest (sexual behavior and sexual and romantic attraction). Thus, the work of Hegna and Larsen (2007) signifies a return to quantitative scholarship that is rigorous but also attentive to the diversity of the sample (indeed their data document this diversity).

The present study is another quantitative foray into this complicated topic. It is, in some ways, both a replication and an extension of the Hegna and Larsen (2007) study, and it draws from the work of Klein (1985) on his KSOG. In addition to items addressing attractions and sexual behaviors, measures of self-esteem and depression were included to explore the relationship between congruence among attractions (described below) and psychological well-being. The study included a sample of college undergraduates from a large Midwestern university. Other than a requirement that students be 18 years old, there were there are no requirements for participation or inclusion in analyses (e.g., identification as GLB, past/present same sex behavior, etc.). Participants were asked about attractions, experiences, and identities. Though the school-aged adolescent sample of Hegna and Larsen’s (2007) study was arguably one of its major strengths, it seems doubtful that any similar questions will be embedded in any studies of US adolescents any time soon. Therefore, this study’s sampling of young college-aged adults, while not ideal for comparisons with Hegna and Larsen’s (2007)
data set, represents a major contribution to understanding similar aspects of same-sex sexuality in an American sample.

**Research questions**

*Sexual orientation component congruence and psychological well-being*  Previous studies exploring sexual identity development models have found that, in samples of gay-identified individuals, those found to be in the final stages of identity development, supposedly characterized by identity “integration” or “synthesis,” tended to score highest on measures of psychological well-being (Corbley, 2004; Halpin & Allen, 2004). Other studies have explored the correlates of discrepancies among identity and behavior. Engler, Otis, Alary, Masse, Remis, Giraud, Vincelette, and colleagues (2005) found that less congruence between the two was related to more high risk behaviors and lower levels of psychological well-being among gay and bisexual men. They suggest that this may in part be due to the fact that there is a lack of support for individuals (e.g., bisexual people) who are not consistent in their attractions and identities. Rosario, Schrimshaw, Hunter, and Braun, (2006) find that youths who consistently reported same-sex orientation over the course of a longitudinal study scored higher on measures of identity integration than those consistently identified as bisexual or those who transitioned to a gay/lesbian identity from a bisexual identity. Rosario and colleagues (2006) suggest cognitive dissonance as an explanation for their findings, but it could also be argued that a lack of support for disparate aspects of sexual orientation, cognitive dissonance, and the “social press” created by current cultural understandings and constructions of the gay/straight binary (Hammack, 2005, see literature review for a more thorough explanation of this concept) all might possibly contribute to negative psychological consequences for non-
congruence among various aspects of sexual orientation. This study is novel because it explores congruence not just of identity and behavior but among additional aspects of sexual orientation, as suggested by Friedman, Silvestre, Gold, Markovich, Savin-Williams, Huggins, and Sell (2004). One purpose of the present study, therefore, was to explore whether higher incongruence among proposed sexual orientation components would correlate with decreased psychological well-being.

*Relationships among congruence, gender, GLB identification and attitudes towards lesbians and gays* Hegna and Larsen (2007) cite several reasons for leaving out an item to assess sexual orientation identity. They suggest, for instance, that identification may be unrelated to sexual behaviors and that assessing identification may affect participants’ responses (i.e., participants may feel compelled to report behaviors that are consistent with their reported orientation due to cognitive dissonance). It may be that for many youth identification as GLB is irrelevant to their lives and behaviors. Conversely, it seems likely that identification as GLB is an important aspect of many people’s lives, and it is arguably useful to evaluate the relevance of identification to behavior and attractions. (e.g., how frequently do participants report same-sex attractions while not reporting a GLB identification?) For the purposes of this study, an item was therefore included that assessed sexual orientation identity (albeit at the end of the administered surveys, so as not to influence other responses). Given past research on internalized homophobia (Shidlo, 1994) it is also arguably worthwhile to assess participants’ attitudes towards GLB people. Thus a measure of such attitudes was included in the present study.
The current study aims to address several related questions. For example, are attitudes of people who have had same-sex experiences more positive than those who have not (based on cognitive dissonance theory; Festinger, 1957)? Will non-heterosexual participants and participants who have reported engaging in same-sex sexual behaviors exhibit higher sexual orientation component incongruence? Given various author’s suggestions that women tend to me more fluid in their sexuality compared to men, will women exhibit higher incongruence as well?

*Same-sex sexual behavior, sexual attraction, and sexual orientation self-label*

Much of the past research on sexual orientation, as already noted, has assumed that sexual behaviors, romantic attraction, sexual attraction, and sexual orientation identity are all part of a single construct: sexual orientation. If one is a gay woman, for instance, than one has sex with other women, is romantically and sexually attracted to women, and identifies as lesbian. Past researchers have implicitly assumed that there exists an inherent congruence among various aspects of sexual orientation, and one of the basic findings of the Hegna and Larsen (2007) study was that, for the youth in their sample, these various components did not always correspond (e.g., same-sex behavior did not always correlate with reported same sex attraction). An additional purpose of the present study was to explore whether this would also hold true for an American sample. There are reasons to believe that the results garnered in Hegna and Larsen’s (2007) study would be replicated in the present sample. While the US is not as socially liberal and is considerably more religious than Norway and other European nations (Anderson, 2004), attitudes towards “homosexuals” have changed significantly in the last 20 years, becoming considerably more positive (Gallup, 2007). It therefore seems likely that the
percentage of respondents willing to disclose same-sex experiences would be similar to the Norwegian sample and that other markers (e.g., same-sex attraction and identification as non-heterosexual) would illustrate a similar lack of correspondence among various aspects of sexual orientation for some participants.

In sum, the primary purpose of this study was to investigate sexual orientation as a multidimensional construct, differentiating between behaviors and attractions as well as among different types of attractions. In addition, it was thought that there would be merit to exploring the psychological sequelae of incongruence among these components, not because such incongruence is inherently harmful or maladaptive, but because our current understanding of sexuality, including the constructs on which we base our identities, often do not allow for such discrepancies.
Defining the Sample

One of the trickiest quandaries in social science research on gay, lesbian, and bisexual (GLB) populations is simply defining one’s sample. In other words, researchers have to decide what it means to be GLB (of course, this is only a problem so long as we insist on dichotomizing sexuality). One historically common option is to screen possible participants and include all those who identify as GLB (e.g., Fassinger & Miller, 1996). Others have typically looked instead at behavior, sometimes including all those who have ever had a same-gender sexual experience (e.g., Rotheram-Borus, Reid, Rosario, and Kasen, 1995). Still others have side-stepped the issue altogether by targeting men who have sex with men (MSM), regardless of stated identification or orientation (e.g., Silenzio, 2003). In a recent review, Savin-Williams (2006) elucidates the problems with these methodological disparities, arguing that it matters a great deal how researchers define their sample, particularly in terms of the generalizability of the results. Whether exploring the prevalence, development, or mental health of GLB individuals, the results tend to be different depending on what one asks. Savin-Williams (2006) is particularly critical of defining samples based on self-identification, pointing out that “Those who
self-ascribe a gay/lesbian label are neither exhaustive nor representative of those with a same-sex orientation.” (p. 40). Moreover, he notes that research has found self-ascribed identity and behavior (gender of actual sexual partners) to be relatively unstable over time whereas there is little research to suggest significant temporal change in sexual arousal and attraction, suggesting that the latter two, if they can be measured properly, might be better markers for defining a population of interest.

This suggestion fits with the results of a recent, explorative, qualitative study where young men and women, some same-sex attracted, some other-sex attracted, and some both, were asked to define sexual orientation (Friedman, Silvestre, Gold, Markovich, Savin-Williams, Huggins, and Sell, 2004). The youth generally agreed that behavior and identification were poor markers of sexual orientation. Rather, they suggested that cognitive and physiological attractions as well as relationship preferences are the cues that they themselves use in understanding their own as well as others’ sexual orientation (Friedman et al., 2004). It also fits with Fritz Klein’s (1985, 1990) theory behind his Klein Sexual Orientation Grid (KSOG), which divides sexuality into several components, including sexual attraction, sexual behavior, sexual fantasies, emotional preference, social preference, lifestyle preference, and self-identification. Finally, Savin-Williams (2006) recommends that some researchers discard the notion of “sexual orientation” entirely and simply assess components that may be of interest in their particular study. HIV prevention researchers, for example, may use a behavioral criterion and simply sample MSM, regardless of orientation, because MSM is actually their population of interest.
In one particularly innovative study involving MSM, Engler, Otis, Alary, Masse, Remis, Giraud, Vincelette, Turmel, Lavoie, and Le Clerk, (2005) used participants’ self-reported sexual and behavioral identities to define four groups of men that could be investigated separately and compared to each other. All the men in the study either identified as gay or bisexual. Depending on whether they reported having recently had sex with only men or with both men and women, the participants were divided into four groups: gay identified/homosexually active, gay identified/bisexually active, bisexual identified/homosexually active, or bisexual identified/bisexually active (Engler et al., 2005). The researchers were particularly interested in exploring the differences among these groups of men in sexual behaviors, various risk behaviors, and emotional/relationship experiences. The authors reported some interesting findings (e.g., differences in sexual and drug-related practices that are relevant to HIV/STI prevention) that would not have been detected had they used any singular orientation criterion, and their results point to the diversity among those with same-sex orientations (Engler et al., 2005).

Cultural Understandings of Sexual Orientation

One reason it has been difficult to define sexual orientation in research is the fact that theorists’ and empirical researchers’ understandings of what it means to be GLB have evolved quite dramatically in the last century, particularly in the last thirty years. The introduction of homosexuality as a clinical term in the late nineteenth century gave researchers and the lay public a framework for understanding same-sex sexual attraction, a framework that remained dominant for most of the twentieth century. To some extent, it could be argued that this conceptualization was ultimately liberating for those who
were same-sex attracted, as it allowed such individuals to at least label their attractions and to know they were not alone. Furthermore, though used primarily as a pathological term at first, the nature of the discourse surrounding homosexuality changed somewhat over time to include conceptions that were not necessarily pathological, both in pop culture (e.g., GLB characters portrayed positively on television) and the social sciences (e.g., the removal of homosexuality from the DSM in 1973). Especially in recent years, GLB advocacy organizations, such as Parents and Friends of Lesbians and Gays (PFLAG), the Human Rights Campaign (HRC), and the national gay and Lesbian Task Force (NGLTF), have espoused a positive and normative view of being GLB, and various people in the media have “come out.” In psychology and sociology, researchers and practitioners have generally moved from viewing homosexuality as deviant and detrimental in and of itself to a broader view of the social context that sometimes makes it difficult to be same-sex oriented. Thus, the collective understanding of homosexuality has evolved from a relatively simple idea about sexual object choice into a complicated cultural construct of what it means to be GLB.

One of the ways that researchers have attempted to make sense of the experiences of GLB people has been to develop models of sexual orientation identity development. Because of negative societal reactions to homosexuality, researchers claimed, GLB people are not typically able or willing to openly express their same-sex desires and attractions at first, and it is only after the person passes through a sequence of developmental stages that he or she is able to “come out” as gay, first to oneself and eventually to others. The first such model put forth in the psychological literature was that of Cass (1979). This model set the tone for nearly two decades of research on sexual
identity in the US. Based on similar models of racial identity development, Cass (1979) speculated that gay and lesbian individuals likely go through a series of steps or stages as they first notice, then explore, and finally integrate a gay identity into their larger sense of self. In the 1980’s and 90’s, Many other researchers suggested their own models of development (e.g., Klein, Sepekoff, & Wolf, 1985; Sophie, 1986; Chapman & Brannock, 1987; Troiden, 1989; McCarn & Fassinger, 1996; Fassinger & Miller, 1996; Peacock, 2000). Although each tries to capture the process more precisely than the last, most of these models are built on Cass’s (1979) original set of stages. The first stages generally include a recognition or initial awareness of oneself as “different,” the relevance of a gay, lesbian, or bisexual orientation to that difference, and awareness of the GLB identity as a stigmatizing one. The individual then moves on to tolerate or accept an identity, perhaps in part because of involvement with other GLB people. Next, the individual enters an immersion or pride stage where one’s sexuality becomes central to one’s activities and overall identity. In the final stage, variously referred to as integration, consolidation, or synthesis, the individual is able to integrate that identity comfortably into his or her overall self-image.

Beginning with Cass’s (1979) model, the stage approach has had its share of detractors. Critics were particularly vociferous in the 90’s and 2000’s, arguing that models were too narrow to cover the developmental process of all gay and lesbian people, that they ignored bisexuals and cultural diversity, and that they had little empirical support (see Savin-Williams, 2005 for a review of these criticisms). Feminist researchers and theorists argue that the models were based on gay male development, claiming that the development of sexual minority women is substantially different from
that of men. In particular, they argue, it tends to be more fluid and subject to change (Sophie, 1986; Diamond, 2006). In papers describing each of the aforementioned models, the authors call attention to the limitations of their models, cautioning that they do not apply to the development of everyone. Nevertheless, critics of stage models made compelling arguments, and research in this area slowed significantly as researchers searched for alternative empirical models and methodologies for investigating sexuality. Instead of specifying a normative developmental track, qualitative psychological researchers reversed course and emphasized the diversity of experiences among GLB people, particularly among same-sex attracted youth (Savin-Williams, 2005; Diamond, 2006), as well as the societal context of a GLB identity (Alderson, 2003).

Other theorists, meanwhile, focused on deconstructing sexual orientation (e.g., Valocchi, 2005; Hammack, 2005), arguing that, while the connotations of homosexuality have changed, the basic notion of sexuality, consisting of the homosexual / heterosexual binary, has remained fundamentally the same. As stated by Valocchi (2005),

“The emergence of the category homosexual at the end of the nineteenth century became a way not only of ordering, classifying, and regulating bodies, personalities, and human types but also of ordering knowledge, social life, and public discourse.” (p. 753-754)

In other words, the ways that we think about and understand the experience of human sexuality have been shaped by the constructs “homosexuality,” “homosexual,” “gay,” etc. Alderson (2003) posited a model of gay identity development that combines human ecology theory with stage models to illustrate the importance of the social context in the construction of a “gay identity.” Alderson (2003) acknowledges biologically-based “catalysts” for believing oneself to be gay in the first place (e.g., strong physical
attractions to others of the same sex), but he specifically argues that his model is not an “essentialist” one, because identity is inherently a constructive process.

Hammack (2005) makes a similar argument for contextualizing the development of sexual orientation across the life course. Contrary to Alderson (2003), however, Hammack (2005) believes that “essentialist” and “constructionist” understandings of sexuality can be integrated and can both therefore contribute to our understanding of sexual orientation and sexual identity. Essentialist notions about sexuality focus on sexual orientation as a property inherent to an individual, whereas the constructivist perspective emphasizes sexual orientation/identity as a culturally and historically situated social construct. Hammack (2005) proposes a life-course model that attempts to bridge the gulf between these two positions. He argues that various biological mechanisms (as yet not fully understood) underlie sexual attraction in all humans, and that these mechanisms lead to specific sexual desires. These desires, in turn, determine how people’s self-schema’s (what Hammack refers to as “sexual subjectivities”) develop. But people do not have unlimited leeway in how this self-schema develops. Individuals are embedded in a cultural and historical context that gives structure to how we construct our self-schemas (which Hammock refers to as the “cultural press”). In other words, people internalize cultural norms and constructs and define themselves in terms of those parameters. Our current sociohistorical milieu offers the homosexual/heterosexual binary as well as various “scripts” for understanding the meaning of our desires. Possible scripts include the “coming out” process, or, particularly for women, the possibility of “experimentation” without attractions or even behaviors having to mean anything. We use these scripts and constructs, according to Hammack (2005), to put together a coherent
narrative of our life stories, and a corresponding, consistent identity develops that fits with this narrative. Concurrently, our behavior becomes more reflective of and more consistent with that narrative. In addition, the individual’s behavior and identity influence each other. Thus, while our attractions may have a biological basis (an essentialist tenet) it is also true that the meaning people attach to those attractions is culturally and historically bound. In other words, it is limited to the available constructs and shaped by the available scripts (a constructionist tenet).

In applying queer theory to sociological research Valocchi (2005) makes a strong argument for the constructed and performative nature of sexual identity. Like Hammock (2005) he argues that the raw materials of one’s personal identity narrative lie in dominant social discourse. Valocchi (2005) refers to the “language of the closet,” for example, to describe a social script that has helped define the lives of GLB identified men and women. Since the beginning of the gay liberation movement, “coming out” has increasingly referred to finding the authentic self, sexuality has moved to the core of identity, and the terms “gay” and “lesbian” have been increasingly politicized to denote an unjustly derogated minority group. In describing this particular script, Valocchi (2005) historicizes and contextualizes particularly salient aspects of GLB identity, or, more broadly, sexual orientation as it is currently constructed. McAdams (2005) similarly identifies “coming out” as both a metaphor and a dominant script.

As Hammock (2005) and Valocchi (2005) point out, a constructivist perspective is important because not everyone fits neatly into the categories and scripts offered in our culture. As researchers, it contributes to our understanding of sexuality because it forces us to step back and examine the constructs we have long used in sexual identity research,
especially when it becomes clear that those constructs are limiting our understanding of the population under study. The same could be said for clinicians’ understanding of their clients. Furthermore, as researchers and therapists, we ourselves contribute to the “dominant discourse” and the ways people understand same-sex sexuality. Many critics of stage models, for example, cite our power as social scientists and therapists and a discomfort with perpetuating models that are perhaps more reflective of dominant social scripts than lived experience. Gottschalk (2003) challenges one particularly persistent assertion – the idea that adult sexual orientation is associated with childhood gender non-conformity. She argues that this claim, despite constant challenges to the retrospective and andocentric methodologies of supporting studies, has remained in both social science and pop culture and has limited people’s understanding of their own sexuality (e.g., a young woman thinks to herself, “I wasn’t a tomboy, therefore I oughtn’t be attracted to women and I am not a lesbian.”) In other words, it remains a powerful social script that potentially limits individuals’ self-understanding.

Lisa Diamond (2006a) makes an additional contribution to a constructivist understanding of sexual orientation / identity in her nuanced examination of narrative models of identity development. Diamond’s (2006a) seminal work includes a longitudinal, qualitative study of women’s sexual identity in which participants were interviewed several times over the course of 10 years. This has allowed Diamond (2006a) to examine in detail the “motivations behind and consequences of” fluctuations and fluidity in identity and behavior, both “as they occurred and as they were recollected years later.” (p. 475). In doing this research, however, she has become aware of two dilemmas that at first glance seem quite problematic. The first, which Diamond (2006a)
calls the “authenticity problem,” refers to the fact that interviewees’ recollections often change over time. For an empirical researcher, then, the question is: how do we know which data are “right?” The second dilemma, known as the “reflexivity problem” refers to the fact that the interviews themselves seem to affect the life course and the adopted identities of the participants (e.g., a participant tells the researcher that the last interview made her thoughtfully reflect on her identity). This again is troubling from a purely empiricist perspective because it compromises the objectivity of the observations; the observer has fundamentally influenced that which is being observed.

Ultimately, however, Diamond (2006a) argues that neither of these is problematic. A postmodern, feminist view of science argues, first, that an objective “truth” or reality is a myth, and second, that total subject / observer independence in science is actually impossible (Gergen, 1994). Moreover, Diamond (2006a) argues that, in this case, these “flaws” actually illustrate the similarities between the laboratory situation and the real lives of these participants. Their identities, she argues, are the products of ongoing narratives that do change over time and which are constructed in talking with others. In other words, the autobiographical narratives are not just a way of “determining what develops” but are in fact “that which develops.” Diamond’s (2006a) contribution is in helping researchers conceptualize sexual identities in new, less limiting ways. Instead of being a fixed property, identity can be seen as an ever-changing, ever-evolving process.

Recent quantitative scholarship has highlighted the flexibility of sexual identity and behavior over time as well as the potential importance of social scripts and personal narratives in explaining results. Rosario, Schrimshaw, Hunter, and Braun (2006)
observed changes over time in the sexual identity of LGB youth. Among their findings, consistently bisexually identified youth scored lower on markers of identity integration, suggesting that forming a coherent gay/lesbian identity is easier than forming a coherent bisexual identity. This may speak to the “cultural press” referred to by Hammack (2005), in that cultural conceptions of homosexuality are more accessible than those for bisexuality. In addition, youth who changed from a bisexual to a gay/lesbian orientation seemed to continue to change, in their orientation and in their identity, even after the adoption of a gay/lesbian identity. One could argue that their behavior is becoming more consistent with their constructed identity. The authors tend to take an essentialist approach, employing cognitive dissonance theory to explain their findings (i.e., participants are bringing their behaviors more in line with their actual attractions to reduce dissonance), but a constructive approach could be equally useful.

Hegna and Larsen (2007) recently reported on data obtained from a sample of Norwegian youth, collected as part of a larger study of 11,373 Norwegian students aged 13 to 19. The power of this study lies in its elegance. The authors assume nothing about the essential sexualities or constructed identities of their participants. Rather, they simply set out to document the incidence of various same-sex sexual behaviors, sexual attractions, and romantic attractions. Hegna and Larsen’s (2007) results speak to the diversity of the youth under study and to the sometimes surprising lack of correspondence among various components of the youths’ sexuality. In their discussion, the authors explore the cultural and personal meanings of behaviors and attractions, both public and private. The data suggests that a large minority of Norwegian youth (perhaps as high as 26%) have same-sex sexual experiences, but that the majority of those
experiences are not tied to attractions. However, when the data are broken down by
gender, they note that physical experiences are more correlated with same-sex attractions
(romantic and sexual) among young men than among the young women in the study. The
authors suggest that same-sex experiences may be more likely to be related to actual
same-sex orientation in young men as compared to young women (the authors admit that
they are “assuming that same-sex attraction is a proxy for” sexual orientation). Hegna
and Larsen (2007) speculate that this is due to divergent sexual scripts for young men and
women in Norwegian society, namely, that same-sex behavior (particularly kissing) is not
necessarily tied to sexual orientation and is a normal part of sexual development for
young women. This does not seem to be the case for young men. In other words, similar
numbers of young women and men may engage in same-sex behavior due to sexual or
romantic attractions, but for a significantly larger number of young women, such
behaviors may have no relation to same-sex attractions. Still, the lack of overlap among
various potential aspects of sexuality is striking among all respondents, male and female,
and it points to the issues explicated by earlier investigators (e.g., Diamond, 2005; Savin-
Williams, 2005). In short, it suggests that sexuality is a complex, multidimensional
concept.

Hegna and Larsen’s (2007) contribution with this relatively straightforward study
is tremendous. First, heeding the advice of Savin-Williams (2005; 2006), Friedman et al.
(2005), Diamond (2006), and others, Hegna and Larsen (2007) analyzed sexual and
romantic attractions separately from same-sex behaviors, and the original survey did not
even ask about self-ascribed identity labels. The authors simply included all youth with
any reported same-sex sexual experiences, romantic attractions, and/or sexual attractions.
They were then able to look at relationships among these variables without making any assumptions as to who their sample was. In doing so, they found unanticipated, intriguing, and potentially informative results—quantitative data that may speak to such complicated constructivist notions as sexual identities and social scripts. Second, by using a subset of a larger adolescent sample, the researchers are embedding their analysis in the larger study of adolescents, as several authors have suggested. Third, the authors separated sexual and romantic attraction. This approach is warranted given that numerous studies have indicated their conceptual distinction (see Diamond, 2003 for an exhaustive review).

Finally, after several complicated forays into post-modern analyses of sexuality, Hegna and Larsen (2007) effectively bring us as researchers “back to Earth.” The commentaries of Hammond, (2005), Valocchi (2006), and Diamond (2006) are brilliant and quite useful in their deconstruction of GLB identity, but aside from illuminating the complexity of the problem, it would seem difficult to apply their critiques to quantitative research. Hegna and Larsen (2007) have managed to do so by taking an approach that is neither essentialist nor constructivist but which encompasses the most reasonable assumptions of each. The authors treat romantic and sexual attractions as properties inherent to individuals while acknowledging the considerable social forces that affect their behavioral expression and treating sexual orientation identity labels as something else entirely. And yet, as Hegna and Larsen (2007) show in their discussion, the data they present may still speak to issues of identity. In exploring the congruence among attractions and behaviors, for example, the authors are able to generate hypotheses about the motivational forces behind behaviors (social scripts vs. attractions) and identity.
adoption. In sum, in their quantitative analyses, they make the sensible assumption that feelings of attraction, complicated as they may be, are intrinsic to individuals and not socially constructed products, and in their discussion, they make the equally sound assumptions that sexual behaviors are highly affected by society and that sexual identities are almost purely socially constructed.

To summarize, past research has generally focused on defining groups based on sexual orientation, operationalized in a variety of ways (e.g., behavior, self definition), and then exploring how those groups differ (e.g., gay and bisexual men vs. heterosexual men, gay men vs. lesbians, GLB individuals vs. heterosexuals, etc.) or how sexual orientation develops (e.g., identity development models). Over time, various authors and researchers began to argue that sexual attraction is multifaceted as opposed to unidimensional. This has made it increasingly difficult to define one’s sample groups, simply because more variables make for exponentially more “cells” in the study design. Theorists have also begun to explore the social constructed nature of sexual orientation and sexual orientation identity. Unfortunately, if one does not fit into the socially constructed scripts that are available, there is evidence that this can have a negative impact on well-being because of the “social press” (Hammock, 2005) that tries to force individuals into social categories, and there is evidence that many do not fit neatly into established categories (e.g., Hegna and Larsen, 2007; Friedman et al., 2005).

The present study

The study described herein returns to the investigation of sexual orientation itself while endeavoring to integrate the aforementioned suggestions and criticisms of previous researchers. However ephemeral and difficult to define the concept may be, sexual
orientation remains an idea that is, at least in theory, understood by most to include various attractions to members of one or both genders. Additionally, actual sexual behaviors seem worth investigating. In exploring congruence among those various aspects, I do not mean to suggest that I have decided that they constitute sexual orientation. Rather, the aim of this study was to explore in new ways how these things which most identify as sexual orientation actually play out in people’s lives.

Furthermore, no matter how one defines sexual orientation, people have a framework (however culturally bound) for understanding same-sex attractions and behaviors and for constructing GLB identities, and, moreover, homosexuality is currently very much in the forefront of American cultural discourse, potentially adding additional meaning and salience to same-sex desires attractions, and behaviors. Thus, items assessing sexual identities were included because the adoption/development of those identities seems to have real psychological correlates (Rotheram-Borus et al., 1995; Corbley, 2004; Halpin and Allen, 2004; Engler et al., 2005; Rosario et al., 2006).
CHAPTER 3

METHODS

Participants

Participants were college undergraduates from a large Midwestern university enrolled in a general psychology course. These participants received course credit for their participation. All study participants were required to be at least 18 years old; otherwise there were no requirements for participation. Four-hundred forty-nine participants completed the on-line surveys. Of these, seven were incomplete. The remaining 438 participants (183 men and 255 women; mean age = 19.42) comprised the data set used for analysis.

Instruments

Participants completed a number of instruments assessing psychological well-being, social desirability, components of sexual orientation, sexual behaviors, and attitudes towards Lesbians and Gays. The Rosenberg Self-Esteem Scale (RSE, Rosenberg, 1965), a ten-item measure of global self-esteem, and the Beck Depression Inventory-II (BDI-II; Beck, Steer, Ball, & Ranieri, 1996), a 21-item measure of depressive symptoms, were included as measures of psychological well-being. Both of these measures were chosen because they have been used extensively with college
students and because they are widely regarded as valid measures of self-esteem and depression (Helm and Boward, 2003; Robins, Hendin, and Trzesniewski, 2001). The Balanced Inventory of Desired Responding (BIDR; Paulhus, 1984, 1988) is a 40-item measure of social desirability. The BIDR was chosen because it offers some flexibility in interpretation in that one can use the entire scale or either of two subscales assessing separate constructs (Self-deception and Impression Management). The two Components of Sexual Orientation measures (the CSM and the CSW) were designed for the present study and are designed to assess proposed components of sexual orientation. An additional questionnaire, also designed for this study, was included to assess a variety of sexual behaviors. The Attitudes Towards Lesbians and Gays Scale (ATLG; Herek, 2000), is a 20-item measure of attitudes towards Lesbians and Gays. The ATLG was chosen because it has been validated extensively in university settings and elsewhere (e.g., Ellis, Kitzinger, and Wilkinson, 2002; Roper and Halloran, 2007). Clients also completed a demographics form assessing age, race/ethnicity, gender, and sexual orientation identity. See Appendix B for a copy of most measures.

*Rosenberg Self-esteem Inventory (RSE).* The RSE (Rosenberg, 1965) is a ten-item, self-report scale measuring global feelings of self-worth or self-acceptance. Participants respond to each item on a four-point, Likert-type scale ranging from “strongly disagree” (1) to “strongly agree” (4). Example items include “On the whole, I am satisfied with myself.” and “At times I think that I am no good at all.” The negatively worded items are reverse scored and then responses to all items are summed. Scores for the whole instrument therefore range from 10 to 40, with higher scores indicating greater self-esteem. Test-retest correlations reported in the literature are typically in the range of
.82-.88, and Cronbach’s alpha for various samples are in the range of .77-.88 (Blascovich & Tomaka, 1993). In the current sample, Cronbach’s alpha for the RSE was 0.91.

*Beck Depression Inventory – II (BDI-II).* Based on the original Beck Depression Inventory (BDI; Beck, 1973), the BDI-II (Beck et al., 1996) is a 21-item, self-report instrument measuring typical depressive symptomatology. For each item, participants are asked to pick one statement regarding a specific depressive symptom that best describes how they feel. For example, the first item includes the following statements regarding sadness: “I do not feel sad; I feel sad much of the time; I am sad all the time,” and “I am so sad or happy that I can’t stand it.” Assigned scores for these four statements range from zero to three, respectively, and none of the items is reverse scored. Scores for each item range from zero to three, and scores from the entire instrument range from zero to 63. Reported coefficient alpha values are generally high. Beck et al. (1996) report a coefficient alpha value of .91 for the inventory, Krefetz, Steer, Zulab, and Beck (2000) report a value of .92, and Steer, Rissmiller and Beck (2000) report a value of .90. The BDI-II generally correlates well with other depression scales (Krefetz et al., 2002) and has been found to correspond well with severity of depression (Steer, Brown, Beck, and Sanderson, 2001). In a sample of college undergraduates, the coefficient alpha for the BDI-II was .89 (Whisman, Perez, & Ramel, 2000). Cronbach’s alpha for the sample in the current study was .92.

*Balanced Inventory of Desired Responding (BIDR)* The Balanced Inventory of Desired responding (BIDR, Paulhus, 1984) is a 40-item social desirability questionnaire divided into two 20-item subscales: “self-deception” (SD) and “impression management” (IM). Items on the SD subscale include, “I never regret my decisions.” and “It would be
hard for me to break any of my bad habits [reverse scored].” This subscale is intended to measure one’s tendency to enhance one’s self-image. The IM subscale includes items such as, “I never swear.” and “I have done things I didn’t tell other people about [reverse scored].” It is designed to measure one’s tendency to enhance one’s public image. All items are answered using a 7-point Likert-type scale. After reversing the negatively keyed items, all the participant’s responses for a given subscale or for the whole instrument are added together. Thus the theoretical range for each subscale is 20-140 and is 40-280 for the whole instrument. The total scale and both subscales were used in the current study. Based on a sample of 101 German University students, Stober, Dette, and Musch (2002) report a mean score of 77.21 (SD = 13.11) for the SD subscale and 69.69 (SD = 15.98) for the IM subscale. Cronbach’s alphas are .69 and .73 for the SD and IM, respectively. In a study of 433 college students, Paulhus (1988) reports an alpha of .83 when all 40 items are summed. In the present study, the coefficient alpha for the total scale was .78, and the alphas for the self-deception and impression management subscales were .71 and .74, respectively.

Components of Sexual Orientation Scale (CSW and CSM) The Components of Sexuality scales were designed to assess participants’ attractions to men and women. The measures consist of a series of 16 items assessing various aspects of interpersonal attraction to men (the CSM) and to women (the CSW). For each gender, the items are broken into subscales. Items for each subscale were rationally developed based on the recommendations of Friedman and colleagues (2004), whose qualitative findings suggested that attraction might be broken down into cognitive sexual attraction, physical sexual attraction, and romantic attraction. An added fourth category attempts to address
platonic, non-romantic, non-sexual recognition of attractiveness in others. Items were written by the study author and were revised based on comments from the author’s dissertation committee, the author’s advisor, and several of the author’s graduate student colleagues. The CSM and the CSW both consist of 16 items, worded identically except for references to gender. There are four items per subscale (see Appendix B for copies of both measures).

Examples from the physiological sexual attraction subscale of the CSM include “I never feel sexually excited around men.[reverse scored]” and “I feel physical, sexual feelings for a number of different men.” Examples from the cognitive sexual attraction subscale include “I never have sexual thoughts about men. [reverse scored]” and “I sometimes have sexual fantasies about men.” Examples from the romantic/relationship subscale of the CSM include “I often think about going on dates with men.” and “I do not want to have a romantic relationship with a man. [reverse scored].” Examples from the platonic recognition of attractiveness subscale include “I can tell if a man is attractive or not.” and “There are men who I think are attractive.” Participants are asked to “think about feelings and attractions that are typical and average” for them and respond to each item using a five-point, Likert-type scale ranging from “strongly disagree” to “strongly agree.” Scores for each subscale are derived by first reversing negatively keyed items and then adding items together. Thus the score for each subscale can range from four to 20 and scores for each scale can range from 16 to 80. In the present study, the coefficient alphas for the CSW were .92, .92, .94, and .83 for the physical sexual attraction, cognitive sexual attraction, romantic/relationship, and platonic recognition of
attractiveness subscales, respectively. The alpha values for the corresponding CSM subscales were .92, .93, .96, and .92, respectively.

*Sexual behaviors* Also included was a sexual behaviors questionnaire (see Appendix B for a copy of this questionnaire). Sexual behaviors were assessed using the following four questions: “Which of the following have you ever engaged in with a male partner?”; “Which of the following have you ever engaged in with a male partner in the last year”; “Which of the following have you ever engaged in with a female partner?”; and “Which of the following have you ever engaged in with a female partner in the last year.” Options for each item included French kissing, touching/fondling above the waist, touching the genitals of partner, oral sex, and vaginal and/or anal sex, and none of the above. The items for the sexual behaviors questionnaire follow those used by Hegna and Larsen (2007) and are similar to those used in other studies assessing sexual behaviors (e.g., Engler et al., 2005; Johnson and Johnson, 2000).

*Attitudes Toward Lesbians and Gays Scale (ATLG)* The ATLG (Herek, 1988) assesses the affective component of respondents’ attitudes towards lesbians and gays, often referred to as condemnation/tolerance (Herek, 1994; Whitley & Ægisdóttir, 2000). The ATLG scale consists of 20 items; 10 items assess Attitudes Toward Lesbians (ATL), and 10 assess Attitudes Toward Gay Men (ATG), providing separate attitude scores for each group. Sample items for the ATL subscale include “Female homosexuality in itself is no problem, but what society can make of it can be a problem [reverse scored].” and for the ATG subscale, “Homosexual behavior between two men is just plain wrong.” For both scales, higher scores indicate more negative attitudes (Herek, 1988).
A preliminary assessment of the ATLG indicated that the instrument was reliable ($\alpha = .90$ for the combined scale, $\alpha = .89$ for the ATG, and $\alpha = .77$ for the ATL). Likewise, a construct validity analysis, in which respondents completed a battery of measures conceptually related to the ATLG, demonstrated that the ATL and ATG scores correlated significantly with the construct validity measures. More specifically, higher scores on the ATLG correlated with traditional sex role attitudes, belief in a traditional family ideology, high levels of dogmatism, the perception that one’s friends agreed with one’s own attitudes toward homosexuality, and the absence of positive interactions with lesbians and gay men (Herek, 1994). In addition to the preliminary analyses, several subsequent studies have been performed that have assessed the reliability and validity of the ATLG. To test discriminant validity the instrument was administered to members of gay and lesbian organizations. As expected, their scores were at the positive end of the range (Herek, 1988). In another assessment of the ATLG’s reliability, the measure was given to 405 participants at six universities. Reliability analyses yielded $\alpha = .95$ for the combined scale, $\alpha = .91$ for the ATG, and $\alpha = .90$ for the ATL, again indicating a high degree of internal consistency (Herek, 1994). Cronbach’s alphas for the ATLG in the current study were .96 for the combined scale, .92 for the ATL, and .94 for the ATG.

**Demographics**  A demographics questionnaire was included to assess age, gender, race/ethnicity, and sexual orientation identity label (see Appendix B for a copy of the demographics questionnaire). Choices for gender included male, female, and transgender. For race/ethnicity, participants could choose among White/Caucasian, Latino(a)/Hispanic, Black/African-American, Asian, Pacific Islander, bi- or multi-racial, and other; participants choosing other were asked to specify their heritage. The
demographics questionnaire included the following item to assess sexual orientation identity; “In terms of your sexual orientation, which of the following applies best to you?” Answer choices included Straight/heterosexual; Prefer no label; Gay; Lesbian; Bisexual; Queer; Straight but questioning; Not straight; Not sure; Attracted to the person; Straight but sometimes attracted to the same sex; Bisexual with stronger attraction to women; Bisexual with stronger attraction to men; or I prefer a label that is not listed. Those selecting the last choice are asked to specify the label they prefer.

Procedures

All procedures were reviewed and approved by the university’s Institutional Review Board (IRB) before being carried out. Participants were general psychology students who were required to participate in research for course credit (students could also choose to write several papers, but most choose to participate in research). In doing so, students enroll in the Research Experience Program (REP) and are able to choose from several studies posted on a special website. The description provided for this study was as follows:

This is a study on sexuality and interpersonal attraction. If you choose to participate you will fill out a number of surveys on-line, which you can do from any on-line computer. Shortly after you sign up on the REP website, you will receive an email with instructions and a web link to the surveys. This study is open to all REP students.

Upon signing up for the study, participants received an email wherein they were directed to a website ( surveymonkey.com) where the surveys were posted. After electronically “signing” an on-line informed consent form (see Appendix C for a copy of the recruitment email and the online consent form) participants completed each of the measures in turn in a single session. All items were completed online in the location of
the participants’ choosing (participants were informed in the recruitment email that some of the items would be assessing sexual attractions and sexual behaviors and they were encouraged to take this into account when deciding where to complete the surveys). Participants began with measures of psychological well-being, including the RSE (Rosenberg, 1965) and the BDI-II (Beck, Steer, Ball, and Ranieri, 1996), followed by the BIDR (Paulhus, 1994). They then completed the CSW and CSM, respectively, the sexual behaviors questionnaire, and the ATLG (Herek, 2000). Lastly, participants completed the demographics questionnaire.

The ATLG and the demographics form (the latter of which included an item assessing sexual orientation identity) were placed after the CSW/CSM so as not to activate cultural and personal notions of sexual orientation identities before participants filled out the CSW/CSM. The ATLG includes questions with somewhat negative wording that could theoretically affect whether people admit to attractions and behaviors associated with homosexuality. Additionally, it was thought that assessing sexual orientation identity prior to assessing participant attractions might affect how participants respond to attraction items because of rigid social constructions of sexual orientation. For example, if a male participant states that he identifies as gay, he may be more likely to respond to items in a way that seems consistent with that identity than he would had he not explicitly noted that identity in a prior item. Upon completing the surveys, the participants were given an opportunity to read a debriefing form (see Appendix C) and were asked to enter a code word assigned to them in the recruitment email to assure they received course credit. The researcher retrieved the data from the website each day and cross-checked the submitted code words with a master list, assigning credit to those who
completed the surveys. This list only existed on the researcher’s computer, which was password protected, and the list was deleted at the end of each quarter data was collected.

**Analysis of Data**

Means and standard deviations were calculated for participant age, the RSE, the BDI-II, the total ATLG, the ATG and ATL subscales, the total BIDR score, and the BIDR IM and SD subscales. Coefficient alphas were calculated for the above measures as well as for the physical sexual attraction, cognitive sexual attraction, romantic/relationship, and platonic recognition of attractiveness subscales of the CSM and CSW. Scores for each of these subscales were calculated by first reverse-scoring negatively worded items and then summing the four items associated with each component.

Gender-specific sexual orientation component incongruence scores were then calculated by summing the absolute values of the three difference scores among the physical sexual attraction, cognitive sexual attraction, and romantic/relationship subscales for the CSM and doing the same for the CSW. This yielded two separate incongruence scores for attractions to men and attractions to women, with higher scores indicating lower congruence. The two scores were then added together for a total incongruence score, with higher scores indicating lower overall sexual orientation component congruence.

Overall same-sex attraction was calculated by summing the physical sexual attraction, cognitive sexual attraction, and romantic/relationship subscale scores on the CSM for male participant and by summing the corresponding scores on the CSW for female participants. A binary coding variable was created for same-sex sexual behavior (SSSB), placing participants into one of two groups: those who reported ever having engaged in any same-sex sexual behavior (the SSSB group) and those who did not report
ever engaging in such behavior (the no-SSSB group). An additional binary coding variable was created for sexual orientation identity. Those participants reporting a heterosexual identity were placed in one group while those who selected any identity other than heterosexual were placed in another group. Note that neither the SSSB group nor the non-Heterosexual group is being defined as GLB.

**Hypotheses**

*Incongruence and psychological well-being* It was hypothesized that greater sexual orientation component congruence would relate to greater psychological well-being. To test this hypothesis, bivariate correlations were calculated using the three sexual orientation component incongruence scores (the score for the CSM, that for the CSW, and the overall sexual orientation component incongruence score), score on the BDI-II, and score on the RSE. Correlations were calculated for the entire sample, separately for men and women, separately for participants identifying as heterosexual and those not identifying as heterosexual, and separately for the SSSB group and the no-SSSB group because it was thought that these groups would likely differ on congruence scores. BIDR score was controlled for in some of these analyses because it was thought that social desirability might have an impact on participants’ willingness to disclose same-sex attraction.

*Gender, sexual orientation identity, same-sex sexual behavior and congruence* It was hypothesized that women would exhibit higher overall incongruence scores than men, that non-heterosexually identifying participants would exhibit higher incongruence scores compared to heterosexually identified participants, and that participants in the SSSB group would exhibit higher incongruence scores compared to the no-SSSB group.
To test these hypotheses, as well as to explore possible interactions among variables, a series of 2-way analyses of variance (ANOVAS) were run using gender, sexual orientation identity, and SSSB as grouping variables with overall incongruence, incongruence in attraction to women, and incongruence in attraction to men as outcome variables.

*Gender differences on same-sex attraction, same-sex recognition of attraction, and same-sex sexual behavior* It was hypothesized that, compared to men, women would demonstrate more overall same-sex attraction, that women would be higher on platonic recognition of same-sex attraction, and that women would be more likely to have engaged in SSSB. A three-way ANOVA with gender, sexual orientation identity, and SSSB as grouping variables and same-sex attraction as the outcome variable was used to investigate the first of these hypotheses, with significant interactions between variables being investigated using independent samples t-tests. The second was investigated using an independent samples t-test comparing men to women across the sample on respective mean scores for platonic recognition of same-sex attraction. The last of these was investigated using a chi-squared analysis comparing the percentage of women who reported SSSB compared to the corresponding proportion of men.

*SSSB and non-heterosexual identity* It was hypothesized that, among participants reporting SSSB, men would be more likely than women to identify as non-heterosexual. To test this hypothesis, a chi-squared analysis was used to compare the percentage of male respondents in the SSSB group who identified as non-heterosexual to the corresponding percentage of female respondents.
SSSB, gender, and attitudes toward gays and lesbians It was hypothesized that participants reporting SSSB would have more positive views of gays and lesbians than those in the no-SSSB group and, based on previous findings, that women would have more positive views compared to men. A two-way ANOVA with gender and SSSB as grouping variables and ATLG score as the outcome variable was used to investigate this hypothesis.

Reported SSSB in the current sample compared to that in Hegna and Larsen (2007) It was hypothesized that the sample in the current study would be similar to the sample in the Hegna and Larsen (2007) study in terms of the percentage of respondents who engaged in specific same sex behaviors. Using the data from the sexual behaviors questionnaire, chi-squared analyses were used to determine whether the percentages of male and female respondents reporting same-sex deep kissing, touching above the waist, touching the genitals of a partner, oral sex, and same-sex intercourse were similar in both samples. Chi-squared analyses were also used to determine whether male and female respondents in the current study differed from each other in percentage reporting same sex behaviors.
CHAPTER 4

RESULTS

Demographics

Three-hundred seventy-one (84.7 percent of the sample) identified as White/Caucasian, 22 (5.0%) identified as Asian/Pacific Islander, 19 (4.3%) identified as bi- or multiracial, 14 (3.2%) identified as Black/African-American, seven (1.6%) identified as Latino(a)/Hispanic, three (0.7%) identified as Native American, and 2 (0.5%) identified as other (see Table 3.1). The mean age of the sample was 19.43 (SD = 2.60).

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>371</td>
<td>84.7</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>22</td>
<td>5.0</td>
</tr>
<tr>
<td>Bi- or Multiracial</td>
<td>19</td>
<td>4.3</td>
</tr>
<tr>
<td>Black/African American</td>
<td>14</td>
<td>3.2</td>
</tr>
<tr>
<td>Latino(a)/Hispanic</td>
<td>7</td>
<td>1.6</td>
</tr>
<tr>
<td>Native American</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>total</td>
<td>438</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.1: Race/Ethnicity of Participants.
White/Caucasian participants were compared to racial/ethnic minority participants on a variety of variables. There were no significant differences found for score on the Rosenberg Self-esteem Inventory (RSE; t = .34, p = .73), score on the Beck Depression Inventory-II (BDI-II; t = 1.30, p = .20), score on the Balanced Inventory of Desired Responding (BIDR; t = .116, p = .91) score on the Attitudes Toward Lesbians and Gays Scale (ATLG; t = .95, p = .34), total overall sexual orientation component incongruence (INC-overall; t = .66, p = .51), and incongruence in attraction to men (INC-men; t = 1.19, p = .23). Racial/ethnic minority participants (M = 6.24, SD = 6.64) were found to be slightly higher compared to White/Caucasian participants (M = 4.87, SD = 4.52) on incongruence in attraction to women (INC-Women; t = 2.11, p < .05). Given the overall similarity of the two groups (with the exception of INC-woman score), it was decided to analyze all participants’ data together.

Three-hundred ninety-five (90.2%) of the sample identified as heterosexual, 17 (3.9%) identified as “straight but sometimes attracted to the same sex,” six (1.4%) identified as gay, five (1.1%) selected “prefer no label,” three (0.7%) identified as bisexual, three (0.7%) selected “attracted to the person,” three (0.7%) identified as “bisexual with stronger attraction to men,” three (0.7%) selected “I prefer a label that is not listed,” one (0.2%) identified as “straight but questioning,” one (0.2%) identified as “not straight”, and one (0.2%) identified as “bisexual with a stronger attraction to women (see Table 4.2). No participants selected lesbian, queer, or “not sure.”
<table>
<thead>
<tr>
<th>Sexual orientation label</th>
<th>Men</th>
<th>Women</th>
<th>Sample</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual</td>
<td>164</td>
<td>231</td>
<td>395</td>
<td>84.7</td>
</tr>
<tr>
<td>Straight but sometimes attracted to the same sex</td>
<td>6</td>
<td>11</td>
<td>17</td>
<td>3.9</td>
</tr>
<tr>
<td>Gay</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>1.4</td>
</tr>
<tr>
<td>Prefer no label</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>1.1</td>
</tr>
<tr>
<td>Bisexual</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Attracted to the person</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Bisexual with stronger attraction to men</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>I prefer a label that is not listed</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Straight but questioning</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Not straight</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Bisexual with stronger attraction to women</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Total</td>
<td>183</td>
<td>255</td>
<td>438</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.2: Sexual orientation label selected by participants.

The mean scores on the BDI-II and the RSE were 7.25 (SD = 7.57) and 32.45 (SD = 5.51), respectively. The mean scores on the BIDR, the BIDR Self-Deception subscale (BIDR-SDE), and the BIDR Impression Management subscale (BIDR-IM) were 163.65 (SD = 20.77), 86.64 (SD = 11.77), and 77.01 (SD = 13.95), respectively. Means on the ATLG, the Attitudes Toward Lesbian Subscale (ATL), and the Attitudes Toward Gays Subscale (ATG) were 73.26 (SD = 38.92), 33.58 (SD = 18.30), and 39.69 (SD = 22.37), respectively. Comparing scores on the ATG and the ATL across the entire sample, attitudes toward gay men were significantly more negative than attitudes toward lesbians (t = 10.28, p > .001), and men’s attitudes towards gays and lesbians were significantly more negative than women’s attitudes (t = 4.61, p < .001). Mean scores for sexual
orientation component incongruence were 4.85 (SD = 4.91) for INC-men, 5.08 (SD = 4.91) for INC-women, and 9.93 (SD = 6.52) for INC-overall (See Table 4.3 for a summary listing of the means and standard deviations noted above).

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDI-II</td>
<td>7.25</td>
<td>7.57</td>
</tr>
<tr>
<td>RSE</td>
<td>32.45</td>
<td>5.51</td>
</tr>
<tr>
<td>BIDR</td>
<td>163.65</td>
<td>20.77</td>
</tr>
<tr>
<td>BIDR-IM</td>
<td>77.01</td>
<td>13.95</td>
</tr>
<tr>
<td>BIDR-SDE</td>
<td>86.64</td>
<td>11.77</td>
</tr>
<tr>
<td>ATLG</td>
<td>73.26</td>
<td>38.92</td>
</tr>
<tr>
<td>ATG</td>
<td>39.69</td>
<td>22.37</td>
</tr>
<tr>
<td>ATL</td>
<td>33.58</td>
<td>18.30</td>
</tr>
<tr>
<td>INC-overall</td>
<td>9.93</td>
<td>6.92</td>
</tr>
<tr>
<td>INC-women</td>
<td>5.08</td>
<td>4.91</td>
</tr>
<tr>
<td>INC-men</td>
<td>4.85</td>
<td>4.91</td>
</tr>
</tbody>
</table>

Table 4.3: Means and standard deviations for scores on the BDI-II, RSE, BIDR, BIDR, BIDR-IM, BIDR-SDE, ATLG, ATG, ATL, INC-overall, INC-women, and INC-men.

*Incongruence and psychological well-being*

Initial bivariate correlational analyses were conducted to explore relationships among variables. Correlation matrices that included the RSE, the BDI-II, incongruence score for attraction to women (INC-Women), incongruence score for attraction to men (INC-Men), total incongruence score (INC-Overall), and total BIDR score were constructed for the total sample, separately for women and men, separately for
participants identifying as heterosexual and those not identifying as heterosexual, and separately for those who reported ever engaging in any same sex sexual behavior and those that did not report such behavior. Results of these analyses are displayed in Table 4.4.

<table>
<thead>
<tr>
<th>All participants Measures/Subscales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RSE</td>
<td>-</td>
<td>-.50**</td>
<td>-.05</td>
<td>.03</td>
<td>-.02</td>
<td>.38**</td>
</tr>
<tr>
<td>2. BDI - II</td>
<td>-</td>
<td>.00</td>
<td>.03</td>
<td>.03</td>
<td>-.41**</td>
<td></td>
</tr>
<tr>
<td>3. INC-Men</td>
<td>-</td>
<td>-.12*</td>
<td>.66**</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. INC - Women</td>
<td>-</td>
<td>.66**</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. INC - Overall</td>
<td>-</td>
<td>.11*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. BIDR</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Male participants Measures/Subscales</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RSE</td>
<td>-</td>
<td>-.42**</td>
<td>-.09</td>
<td>.09</td>
<td>.00</td>
<td>.32**</td>
</tr>
<tr>
<td>2. BDI - II</td>
<td>-</td>
<td>.05</td>
<td>.01</td>
<td>.04</td>
<td>-.28**</td>
<td></td>
</tr>
<tr>
<td>3. INC-Men</td>
<td>-</td>
<td>-.02</td>
<td>.73**</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. INC - Women</td>
<td>-</td>
<td>.67**</td>
<td>.31**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. INC - Overall</td>
<td>-</td>
<td>.24**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. BIDR</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4: Correlations between RSE, BDI, INC-Men, INC-Women, INC-overall, and BIDR for the total sample, male participants, female participants, participants identifying as heterosexual, participants who do not identify as heterosexual, participants not reporting same sex sexual behavior, and participants reporting same-sex sexual behavior.
### Female participants

<table>
<thead>
<tr>
<th>Measures/Subscales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RSE</td>
<td>-</td>
<td>-.56**</td>
<td>-.01</td>
<td>-.03</td>
<td>-.03</td>
<td>.42**</td>
</tr>
<tr>
<td>2. BDI - II</td>
<td>-</td>
<td>-</td>
<td>-.10</td>
<td>.10</td>
<td>.00</td>
<td>-.49**</td>
</tr>
<tr>
<td>3. INC-Men</td>
<td>-</td>
<td>-.14**</td>
<td>.62**</td>
<td>.14*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. INC - Women</td>
<td>-</td>
<td>.69**</td>
<td>-</td>
<td>-.13*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. INC - Overall</td>
<td>-</td>
<td>.00</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. BIDR</td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Participants identifying as heterosexual

<table>
<thead>
<tr>
<th>Measures/Subscales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RSE</td>
<td>-</td>
<td>-.46**</td>
<td>.00</td>
<td>.05</td>
<td>.03</td>
<td>.38**</td>
</tr>
<tr>
<td>2. BDI - II</td>
<td>-</td>
<td>-</td>
<td>-.04</td>
<td>.01</td>
<td>-.03</td>
<td>-.35**</td>
</tr>
<tr>
<td>3. INC-Men</td>
<td>-</td>
<td>-.14**</td>
<td>.63**</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. INC - Women</td>
<td>-</td>
<td>.68**</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. INC - Overall</td>
<td>-</td>
<td>.10</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. BIDR</td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Participants not identifying as heterosexual

<table>
<thead>
<tr>
<th>Measures/Subscales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RSE</td>
<td>-</td>
<td>-.72**</td>
<td>-.22</td>
<td>.00</td>
<td>-.18</td>
<td>.34*</td>
</tr>
<tr>
<td>2. BDI - II</td>
<td>-</td>
<td>.07</td>
<td>.05</td>
<td>.10</td>
<td>-.19</td>
<td></td>
</tr>
<tr>
<td>3. INC-Men</td>
<td>-</td>
<td>-.12</td>
<td>.75**</td>
<td>.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. INC - Women</td>
<td>-</td>
<td>.56**</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. INC - Overall</td>
<td>-</td>
<td>.28</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. BIDR</td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Participants not reporting same-sex sexual behavior

<table>
<thead>
<tr>
<th>Measures/Subscales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. RSE</td>
<td>-</td>
<td>-.47**</td>
<td>-.02</td>
<td>-.05</td>
<td>-.02</td>
<td>.38**</td>
</tr>
<tr>
<td>2. BDI - II</td>
<td>-</td>
<td>-.04</td>
<td>-.02</td>
<td>-.05</td>
<td>-.40**</td>
<td></td>
</tr>
<tr>
<td>3. INC-Men</td>
<td>-</td>
<td>-.11*</td>
<td>.69**</td>
<td>.13*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. INC - Women</td>
<td>-</td>
<td>.64**</td>
<td>.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. INC - Overall</td>
<td>-</td>
<td>.17**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. BIDR</td>
<td>-</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Score on the BIDR was significantly correlated at least once with each of the other scores. Similar to past findings, which suggest that BIDR score tends to correlate positively with self-esteem and negatively with depression, BIDR exhibited a weak to moderate positive relationship with RSE score for each of the groups listed in table 3.3 (r ranges from .32 - .42 , p < .05) and weak negative relationships with BDI-II score in all but one subgroup (r ranges from -.28 to -.49, p < .01). Score on the BIDR exhibited several significant but inconsistent correlations with INC-overall, INC-men, and INC-women scores. BIDR related positively to INC-overall for all participants (r = .11, p < .05), male participants (r = .24, p < .01), and participants not reporting same sex sexual behavior (r = .17, p < .01). BIDR related positively to INC-women for male participants(r = .31, p < .01) and negatively for female participants (r = -.13, p < .05). For female participants and participants who did not report same sex behavior, BIDR score correlates positively with INC-men (r = .14, p < .05 and r = .13, p < .05, respectively).
The hypothesis that greater incongruence would relate to lower overall psychological well-being is generally not supported for any of the groups listed in Table 4.4 in that scores on the BDI-II and RSE were not generally found to correlate with incongruence score. The sole exception is a small positive correlation between INC-overall and score on the BDI-II for participants reporting same sex sexual behavior (r = .24, p < .05). As would be predicted from prior literature, there is a moderate, consistently negative correlation between score on the RSE and the BDI-II (r ranges from -.042 to -.072, p < .01). As might be expected, given that the INC-overall scale is comprised of the INC-men and INC-women, the latter two exhibited consistent moderate to strong correlations with the former (r ranges from .53 to .75, p < .01). The sole significant correlation between INC-men and INC-women score, found for participants not reporting same-sex sexual behavior, was weak (r = -.11, p < .05).

Given the positive correlation between BDI-II score and INC-overall for participants who reported same-sex sexual behavior, it was decided to explore this relationship further using a partial correlation analysis, controlling for BIDR score. BIDR score was chosen as a covariate because it exhibited relationships with several variables (as noted above) and because it was thought that doing so might reduce error variance. When BIDR is controlled for, the correlation between INC-overall and BDI-II score is not significant (r = .21, p = .06). However, when score on the impression management subscale of the BIDR (the BIDR-IM) is controlled for, a small positive correlation is found (r = .22, p < .05). A similar correlation is found when the self-deception subscale (the BIDR-SDE) is controlled for (r = .23, p < .05).

Gender, sexual orientation identity, same-sex sexual behavior and congruence
It was hypothesized that gender, reported sexual orientation identity, and whether or not participants had reported SSSB would be related to incongruence scores. To test this hypothesis, a 3 X 3 multivariate analysis of variance (MANOVA) was conducted with INC-overall, INC-women, and INC-men as dependant variables. Results of the MANOVA indicated that women demonstrated more incongruence than men, Wilks’ Lambda $F(2, 429) = 3.14, p < .05$. Post hoc univariate F tests indicated that of the three dependent variables (INC-overall, INC-women, and INC-men), INC-overall, $F(1, 429) = 3.91, p < .05$, and INC-men, $F(1, 429) = 6.09, p < .05$, contributed significantly to the MANOVA effect. Results of the MANOVA also indicated that non-heterosexually identified participants reported more overall incongruence then heterosexually identified participants, Wilks’ Lambda $F(2, 429) = 11.89, p < .001$. Post hoc univariate F tests indicated that of the three dependent variables INC-overall, $F(1, 429) = 19.35, p < .001$, and INC-men, $F(1, 429) = 20.25, p < .001$, contributed significantly to the MANOVA effect. Results indicated that those who reported SSSB did not differ significantly from those who did not report SSSB, $F(2, 429) = 2.52, p = .08$. Means and standard deviations for INC-overall, INC-women, and INC-men are presented in Table 4.4.
### Gender

<table>
<thead>
<tr>
<th>Dependant measures</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( M )</td>
<td>( SD )</td>
</tr>
<tr>
<td>INC-Overall</td>
<td>10.12</td>
<td>6.10</td>
</tr>
<tr>
<td>INC-women</td>
<td>4.31</td>
<td>4.82</td>
</tr>
<tr>
<td>INC-men</td>
<td>5.80(^a)</td>
<td>4.44</td>
</tr>
</tbody>
</table>

### Sexual orientation identity label

<table>
<thead>
<tr>
<th>Dependant measures</th>
<th>Non-Heterosexual</th>
<th>Heterosexual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( M )</td>
<td>( SD )</td>
</tr>
<tr>
<td>INC-Overall</td>
<td>9.49(^b)</td>
<td>6.18</td>
</tr>
<tr>
<td>INC-women</td>
<td>4.89</td>
<td>4.83</td>
</tr>
<tr>
<td>INC-men</td>
<td>4.60(^b)</td>
<td>4.61</td>
</tr>
</tbody>
</table>

### Reported SSSB

<table>
<thead>
<tr>
<th>Dependant measures</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( M )</td>
<td>( SD )</td>
</tr>
<tr>
<td>INC-Overall</td>
<td>10.88</td>
<td>6.73</td>
</tr>
<tr>
<td>INC-women</td>
<td>5.78</td>
<td>5.81</td>
</tr>
<tr>
<td>INC-men</td>
<td>5.10</td>
<td>4.54</td>
</tr>
</tbody>
</table>

Table 4.5: Means and standard deviations for main effects of gender, reported sexual orientation, and reported SSSB for measures of sexual orientation component incongruence.

\(^a\) These means are significantly different from each other at \( p < .05 \).

\(^b\) These means are significantly different from each other at \( p < .001 \).
Results of the MANOVA indicated a significant interaction between gender and sexual orientation label, Wilks’ Lambda $F(2, 429) = 15.73, p < .001$. Post hoc univariate F tests indicated that of the three dependent variables (INC-overall, INC-women, and INC-men), both INC-women, $F(1, 429) = 5.94, p < .05$, and INC-men, $F(1, 429) = 27.25, p < .001$, contributed significantly to the MANOVA effect. Results of the MANOVA also indicated a significant interaction between gender and SSSB, Wilks’ Lambda $F(2, 429) = 3.04, p < .05$. Post hoc univariate F tests indicated that of the three dependent variables both INC-overall, $F(1, 429) = 5.03, p < .05$, and INC-men, $F(1, 429) = 5.11, p < .05$, contributed significantly to the MANOVA effect. Finally, results indicated that there was a significant interaction between sexual orientation identity label and SSSB, Wilks’ Lambda $F(2, 429) = 3.04, p < .05$. Post hoc univariate F tests indicated that of the three dependent variables both INC-overall, $F(1, 429) = 8.65, p < .01$, and INC-women, $F(1, 429) = 6.65, p < .01$, contributed significantly to the MANOVA effect.

Looking at Figures A.1 – A.6 (see appendix A), one can see the noted interaction effects. For the gender (men vs. women) by sexual orientation label (heterosexually identified vs. non heterosexually identified) analysis, with INC-women as the dependant variable, the two male groups did not differ significantly whereas the heterosexually identified women ($M = 3.94, SD = 4.65$) were significantly lower than the non-heterosexually identified women ($M = 7.92, SD = 5.02$). Substituting INC-men as the dependant variable in the same analysis, opposite results are obtained. The two female groups do not differ, but heterosexually identified men ($M = 2.79, SD = 4.22$) are significantly lower than non-heterosexually identified men ($M = 9.89, SD = 8.21$; see table 4.6 and Figures A.1 and A.2 in Appendix A).
<table>
<thead>
<tr>
<th>Gender</th>
<th>Sexual orientation identity label</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heterosexual</td>
<td></td>
<td>Non-heterosexual</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Women</td>
<td>3.94</td>
<td>4.65</td>
<td>7.92</td>
</tr>
<tr>
<td>Men</td>
<td>6.23</td>
<td>4.77</td>
<td>5.37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Sexual orientation identity label</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Heterosexual</td>
<td></td>
<td>Non-heterosexual</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Women</td>
<td>5.89</td>
<td>4.44</td>
<td>5.00</td>
</tr>
<tr>
<td>Men</td>
<td>2.79</td>
<td>4.22</td>
<td>9.89</td>
</tr>
</tbody>
</table>

Table 4.6: Means and standard deviations for the effects of gender and reported sexual orientation label for INC-women (top matrix) and INC-men (bottom matrix).

For the gender (men vs. women) by SSSB (reported SSSB vs. not having reported SSSB) analysis, with INC-overall as the dependant variable, the two groups of women do not differ, while men reporting SSSB (M = 11.24, SD = 7.55) are significantly higher than men not reporting SSSB (M = 9.47, SD = 7.02). With INC-men as the dependant variable, scores for the two SSSB groups do not differ, but for the non-SSSB group women (M = 6.09, SD = 4.63) score higher than men (M = 3.23, SD = 5.00; see table 4.7 and Figures A.3 and A.4 in Appendix A).
I

Table 4.7: Means and standard deviations for the effects of gender and reported SSSB for INC-overall (top matrix) and INC-men (bottom matrix).

Finally, for the sexual orientation label (heterosexual vs. non-heterosexual) by SSSB (reported SSSB vs. not having reported SSSB) analysis, among heterosexually identified participants, those who reported SSSB did not differ on INC-overall score from those who did report SSSB, whereas, among non-heterosexually identified participants, those not reporting SSSB had a significantly higher mean INC-overall score (M = 17.07, SD = 8.51) compared with participants reporting SSSB (M = 12.29, SD = 7.56). With INC-women as the dependant variable, the two SSSB groups do not differ, but for the two non-SSSB groups, heterosexually identified participants (M = 4.76, SD = 4.65) are
significantly lower than non-heterosexually identified participants (M = 8.67, SD = 4.12; see Table 4.8 and Figures A.1 and A.2 in Appendix A).

<table>
<thead>
<tr>
<th>Sexual orientation label</th>
<th>Reported SSSB</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Heterosexual</td>
<td>9.40</td>
<td>6.18</td>
<td>10.12</td>
</tr>
<tr>
<td>Non-Heterosexual</td>
<td>17.07</td>
<td>8.51</td>
<td>12.29</td>
</tr>
</tbody>
</table>

Table 4.8: Means and standard deviations for the effects of sexual orientation identity label and reported sexual orientation label for INC-overall (top matrix) and INC-women (bottom matrix).

Gender differences on same-sex attraction, same-sex platonic recognition of attractiveness, and same-sex sexual behavior
As previously stated, overall same-sex attraction was calculated by adding the physical sexual, cognitive sexual, and romantic/relationship attraction scores corresponding to the gender of the participant. A t-test did not show a significant difference between men (M = 18.28, SD = 11.05) and women (M = 17.85, SD = 8.30) on this variable across the sample (t = .464, p = .643). Given that non-heterosexually identifying participants and participants who reported SSSB likely experience more same-sex attraction compared to heterosexually identifying participants and participants not reporting SSSB, it was decided to repeat the gender analysis for these two groups. For non-heterosexually identifying participants, men (M = 41.53, SD = 13.17) were higher than women (M = 31.54, SD = 12.68) on same-sex attraction (t = .252, p < .05). For participants having reported SSSB, the difference was even greater, with men (M = 38.19, SD = 16.95) scoring higher than women (M = 21.59, SD = 11.44) on same-sex attraction (t = 5.00, p < .001). Gender differences in same-sex platonic recognition of attractiveness were similarly investigated. Across the sample, women (M = 12.75, SD = 4.37) were generally higher than men (M = 8.80, SD = 4.49; t = 9.17, p < .001). Looking at same-sex sexual behavior, the proportion of women engaging in such behavior (23.1%) was significantly higher than the proportion of men engaging in SSSB (11.5%; $\chi^2 = 9.71$, p < .01).

SSSB and non-heterosexual identity

A chi-squared analysis indicated that, among participants reporting SSSB, men were more likely to identify as non-heterosexual (61.9%) than women (25.4%; $\chi^2 = 9.06$, p < .01). Among participants not reporting SSSB, there was no significant difference, with 3.7% of men and 4.6% of women identifying as non-heterosexual ($\chi^2 = 0.17$, p =
There was also no significant difference across the entire sample, with 9.4% of women and 10.4% of men identifying as non-heterosexual ($\chi^2 = 0.17$, $p = .68$).

**SSSB, gender, and attitudes toward gays and lesbians**

A two-way ANOVA was conducted that included gender (men vs. women) and SSSB (those reporting SSSB and those not reporting SSSB) with ATLG score as the outcome variable. There were significant main effects for gender ($F = 7.27$, $p < .01$), with men ($M = 83.21$, $SD = 38.76$) scoring significantly higher than women ($M = 66.13$, $SD = 37.52$), and for SSSB ($F = 33.14$, $p < .001$), with those not reporting SSSB ($M = 79.01$, $SD = 38.08$) scoring significantly higher on the measure than those reporting SSSB ($M = 47.58$, $SD = 31.81$). The interaction between gender and SSSB was not significant ($F = .003$, $p = .96$).

**Reported SSSB in the current sample compared to that in Hegna and Larsen (2007)**

Percentages of male and female participants who reported having engaged in same-sex sexual behaviors are listed in Table 5.4. Chi-squared analyses indicated strong relationships between gender and percentage of respondents reporting having engaged in specific behaviors including French kissing, touching the genitals of a partner, oral sex, vaginal and/or anal sex, and “none of the above.” For the current sample, a significantly higher percentage of women engaged in same-sex French-Kissing, but a significantly higher percentage of men engaged in touching the genitals of a partner, oral sex, vaginal and/or anal sex, and “none of the above.” For touching/fondling above the waist, the difference was non-significant (see Table 5.4 for relevant $\chi^2$ and $p$ values). For a complete list of the percentages of male and female participants who reported having engaged in specific same- and other-sex behaviors, see Table A.4 in the appendix.
<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>French kissing</td>
<td>7.1</td>
<td>22.4</td>
<td>18.45, p&lt;.001</td>
</tr>
<tr>
<td>Touching/fondling above the waist</td>
<td>8.2</td>
<td>9.8</td>
<td>n.s.</td>
</tr>
<tr>
<td>Touching the genitals of partner</td>
<td>8.7</td>
<td>2.7</td>
<td>7.70, p&lt;.01</td>
</tr>
<tr>
<td>Oral sex</td>
<td>7.1</td>
<td>2.4</td>
<td>5.80, p&lt;.05</td>
</tr>
<tr>
<td>Vaginal and/or anal sex</td>
<td>4.4</td>
<td>0.4</td>
<td>8.38, p&lt;.01</td>
</tr>
<tr>
<td>None of the above</td>
<td>88.5</td>
<td>76.9</td>
<td>9.71, p&lt;.01</td>
</tr>
</tbody>
</table>

Table 4.9: Percentages of men and women who reported engaging in specific same-sex sexual behaviors.

The current dataset was compared to Hegna and Larsen’s (2007) dataset (which included 3579 males and females who were 17-18 years old), using chi-squared analyses to explore whether similar proportions of participants engaged in same-sex sexual behaviors in the two studies. The percentage of female respondents in Hegna and Larsen’s (2007) sample who reported engaging in same-sex French kissing (referred to variously as French kissing, deep kissing, and necking in the Hegna and Larsen article) was not statistically different from the percentage in the current sample ($\chi^2 = 1.50, p = .22$). However, Hegna and Larsen’s (2007) findings were not replicated for the additional behavioral variables. For both samples, gender was found to be significantly related to the percentage of respondents who reported engaging in touching the genitals of one’s partner and oral sex (Hegna and Larsen, 2007), but the male/female differences were in
the opposite direction. In the Hegna and Larsen (2007) study, a higher proportion of women reported having engaged in these behaviors, whereas a higher proportion of men reported having done so in the current study. Additionally, Hegna and Larsen (2007) did not report a significant difference in the proportions of women and men who reported having engaged in same-sex vaginal/anal sex (referred to in Hegna and Larsen as same-sex intercourse), whereas, in the current study, the proportion was significantly higher for men. Finally, in the current study, there was no significant difference in the proportions of men and women who reported fondling above the waist whereas it was significantly higher for women in the Hegna and Larsen (2007) study.

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>French kissing</td>
<td>3.9</td>
<td>25.7</td>
<td>326.4, p&lt;.001</td>
</tr>
<tr>
<td>Touching/fondling above the waist</td>
<td>3.8</td>
<td>8.5</td>
<td>33.3, p&lt;.001</td>
</tr>
<tr>
<td>Touching the genitals of partner</td>
<td>2.4</td>
<td>4.2</td>
<td>9.0, p&lt;.001</td>
</tr>
<tr>
<td>Oral sex</td>
<td>1.5</td>
<td>3.1</td>
<td>11.0, p&lt;.001</td>
</tr>
<tr>
<td>Vaginal and/or anal sex</td>
<td>1.2</td>
<td>1.6</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Table 4.10: Prevalence of same-sex experience among young males and Females 17-18 years, %, n = 3579. Adapted from Hegna and Larsen (2007).

Comparing the males of this sample to the males of Hegna and Larsen’s (2007) sample, the proportions of males reportedly having engaged in same-sex French kissing ($\chi^2 = 5.01, p < .05$), touching/fondling above the waist ($\chi^2 = 9.68, p < .01$), touching the
genitals of one’s partner ($\chi^2 = 31.43, p < .001$), oral sex ($\chi^2 = 9.68, p < .001$), and vaginal/anal sex ($\chi^2 = 15.53, p < .001$) are higher in the current study (see Tables 5.4 and 5.5 for the relevant percentages). The proportions of women who reported engaging in these behaviors in the current study did not significantly differ from the corresponding proportions in Hegna and Larsen’s (2007) study.
CHAPTER 5

DISCUSSION

This study was designed to quantitatively explore sexual orientation from a multidimensional perspective. First, since the Components of Sexual Orientation, Attraction to Women Scale (the CSW) and the Components of Sexual Orientation, Attraction to Men Scale (the CSM) were developed for this study, it was necessary to ascertain the internal consistency reliability of each of the subscales, as well as the scales as a whole. Second, the relationship between psychological well-being and congruence among sexual orientation components, as well as the relationships between congruence and gender and between congruence and reported sexual orientation identity, were explored in this study. Other questions were explored as well, including whether women experience more same-sex attraction overall compared to men, the relationship between same-sex sexual behaviors (SSSB) and identification as non-heterosexual, and whether those who report SSSB have more positive attitudes towards gays and lesbians. Finally, data from the current sample regarding SSSB was compared to SSSB data from an earlier study by Hegna and Larsen (2007).

*Initial reliability analyses for the CSW and the CSM*
Coefficient alphas for the four subscales of both the CSW and the CSM can be found in Table 6.1. As stated in chapter 3, all values were above .9, suggesting high internal consistency among the items in each subscale. Additionally, the coefficient alphas of both the entire CSM scale and entire CSW scale were also above .9.

<table>
<thead>
<tr>
<th>Subscale</th>
<th>CSW</th>
<th>CSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical sexual attraction</td>
<td>.92</td>
<td>.92</td>
</tr>
<tr>
<td>Cognitive sexual attraction</td>
<td>.92</td>
<td>.93</td>
</tr>
<tr>
<td>Romantic/relationship attraction</td>
<td>.94</td>
<td>.96</td>
</tr>
<tr>
<td>Platonic recognition of attractiveness</td>
<td>.83</td>
<td>.92</td>
</tr>
<tr>
<td>Whole scale</td>
<td>.97</td>
<td>.98</td>
</tr>
</tbody>
</table>

Table 5.1: Internal consistency reliabilities for subscales of the CSW and CSM. Note: Each subscale consists of 4 items.

One possible explanation for the high total-scale alphas that still leaves room for future exploration of components of sexual orientation is a combination of response bias and the “cultural press” referred to in Chapters 1 and 2 (Hammack, 2005). As previously noted, Hammack argues that sexual orientation identity has been constructed in such a way that individuals come to understand sexual attraction as being bifurcated into the unitary constructs of attraction to women and attraction to men. If a participant is answering a series of questions about attraction to men and she assumes it to be a singular
construct, she may (in her haste to quickly finish the surveys she is filling out for course credit) select the same answer choice for each item. Indeed, this type of response bias was the reason for excluding some participants’ data (e.g., they selected the same extreme answer for every item on the CSW or CSM without regard to items that were negatively-worded). Even looking at other participant’s data that was included, when reverse-scored items were reverse-keyed, participants’ responses were often consistently extreme (e.g., all 1’s or all 4’s) across the entire measure. In such cases, it could very well be that the participant thoughtfully considered each item and his selections represents his actual attractions. An equally plausible hypothesis is that he quickly noted the scale had to do with attraction to men or attraction to women and he treated all items as if they were assessing the same thing. Post-hoc bivariate correlations do in fact suggest that the three sexual attraction subscales are highly correlated for both measures (see tables 5.2 and 5.3). In future research, it may be helpful to devise ways of assessing components at different points, separated by some length of time, in a given study.

<table>
<thead>
<tr>
<th>Subscales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical sexual</td>
<td>-.92</td>
<td>.92</td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>2. Cognitive sexual</td>
<td>-.89</td>
<td>.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Romantic/relationship</td>
<td>-.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Platonic recognition of attraction</td>
<td>-.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2: Bivariate correlations among CSW subscales. Note: all correlations are significant at p < .01.
Table 5.3: Bivariate correlations among CSM subscales. Note: all correlations are significant at $p < .01$.

<table>
<thead>
<tr>
<th>Subscales</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical sexual</td>
<td>.95</td>
<td>.94</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>2. Cognitive sexual</td>
<td></td>
<td>.90</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>3. Romantic/relationship</td>
<td></td>
<td></td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>4. Platonic recognition of attraction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are two relevant post-hoc findings of note regarding the consistency with which participants responded to CSW and CSM items. The first is that the correlations between subscales on the CSM and CSW tended to be lower when they were calculated for female participants only or for male participants only (see tables 5.4 and 5.5). This may indicate greater differentiation among CSM / CSW subscales than was indicated by total sample correlations.

Table 5.4: Bivariate correlations among CSW subscales for male and female participants. Note: all correlations are significant at $p < .01$.

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Women 1</th>
<th>Women 2</th>
<th>Women 3</th>
<th>Women 4</th>
<th>Men 1</th>
<th>Men 2</th>
<th>Men 3</th>
<th>Men 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical sexual</td>
<td>-.74</td>
<td>.80</td>
<td>.33</td>
<td></td>
<td>-.80</td>
<td>.66</td>
<td>.61</td>
<td></td>
</tr>
<tr>
<td>2. Cognitive sexual</td>
<td></td>
<td>-.63</td>
<td>.40</td>
<td></td>
<td>-.62</td>
<td>.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Romantic/relationship</td>
<td></td>
<td></td>
<td>-.19</td>
<td></td>
<td>-.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Platonic recognition of attraction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.5: Bivariate correlations among CSM subscales for male and female participants.

Note: all correlations are significant at p < .01.

The second notable post-hoc finding is a small but significant negative correlation between the Self-Deception Subscale of the Balanced inventory of Desired Responding (BIDR-SDE; Paulhus, 1984) and total same-sex attraction (SSA) for heterosexual men (-.210, p < .01). The BIDR-SDE is designed to assess the tendency of individuals to maintain beliefs about oneself that promote a positive self-image (Paulhus, 1984; 1988). It may be that the heterosexual men in the current study experience some degree of same-sex attraction but, because of societal homonegativity and a need to maintain a positive self-image, they deny such attractions. It behooves future researchers in this area to explore ways of assessing same-sex attraction that are more nuanced and (perhaps) less threatening.

Does greater component incongruence relate to lower psychological well-being?

---

1 As previously noted, total same-sex attraction (SSA) was calculated by summing the scores for the physical sexual attraction, cognitive sexual attraction, and romantic/relationship attraction scales of the CSW for female participants and the corresponding scales of the CSM for male participants.
It was hypothesized that, on the whole, greater incongruence would relate to lower psychological well-being. This hypothesis was not generally supported in the current study. In the initial correlational analyses, neither the Beck Depression Inventory-II (BDI-II; Beck, 1996) nor the Rosenberg Self-Esteem Inventory (RSE, Rosenberg, 1965) was significantly correlated with overall incongruence score (INC-overall), CSW component incongruence score (INC-women), or CSM component incongruence score (INC-men) for the sample in this study. Neither were these measures correlated for male participants, for female participants, for heterosexually identified participants, for non-heterosexually identified participants, or for participants who did not report same-sex sexual behaviors (SSSB). It may be that psychological well-being is not related to incongruence in the way proposed. One possibility is that denial or suppression of any same-sex attractions serves to boost psychological well-being in some individuals while lowering well-being for others, thus clouding any extant relationships between the variables. This assumes that most people experience some degree of same-sex attraction, a notion that itself is difficult to support empirically presumably because of the effects of societal homophobia on the willingness of participants to disclose such attractions.

As illustrated in Table 5.1, there was only one significant correlation for these measures. Specifically, for participants reporting same-sex sexual behavior (SSSB), there was a small but significant relationship in the predicted direction between overall incongruence and depression, a correlation that remained significant when controlling for impression management and self-deception. A post-hoc analysis indicated that the mean depression score for the SSSB group is significantly higher than that of the non-SSSB group (t = 3.43, p<.01). It may be that participants reporting SSSB simply exhibited
greater variability in both depression and incongruence, making for a statistically clearer
correlation. Beyond this explanation, it remains unclear why this relationship would exist
for participants reporting SSSB but not for any other subgroup of participants. Taking
into account that 52 of the 80 participants in the SSSB group identified as heterosexual
(see Table 5.6 below), one possible explanation might be that a large proportion of this
group faces an additional discrepancy between their stated sexual orientation identity and
their behavior, which may have a negative, additive effect with component incongruence.
The other portion of the group – the 28 participants who identified as non-heterosexual
and reported SSSB – may face difficulties associated simply with not identifying as
heterosexual which may also have an additive effect with incongruence. This is difficult
to test in the current data set given that small cell sizes for these subgroups; the
correlation between depression and incongruence is not significant for either the
heterosexually identifying/SSSB subgroup (n = 52) or the non-heterosexually
identifying/SSSB subgroup (n = 28).

Do women, those who reported SSSB, and non-heterosexually identified participants
exhibit higher incongruence?

The hypothesis that women would exhibit more sexual orientation component
incongruence compared to men was supported for overall incongruence (INC-overall)
and incongruence in attraction to men (INC-men), but not for incongruence in attraction
to women (INC-women). It was similarly hypothesized that non-heterosexually
identified participants would exhibit higher incongruence compared to heterosexually
identified participants. This hypothesis was also supported for INC-overall and INC-men
but not for INC-women. The hypothesis that participants who reported engaging in
SSSB would exhibit more incongruence than those not reporting SSSB was not supported in the current sample.

There was an interaction between gender and sexual orientation identity label for INC-women and INC-men, but not for INC-overall. Among men, there was no difference between heterosexually-identified and non-heterosexually identified participants on INC-women, but, among female participants, non-heterosexually identifying women were higher on INC-women than heterosexually identifying women. For INC-men, the opposite was true; among men, non-heterosexually identifying participants were higher on INC-men than heterosexually identifying men, but, among women, there was no difference between the groups. (See Figures A.1 and A.2 in Appendix A). There was an interaction between SSSB and gender for INC-overall and INC-men but not for INC-women. Among women, there was no difference for INC-overall between participants reporting and those not reporting SSSB. Among men, those reporting SSSB were higher on INC-over compared to men not reporting SSSB. For the INC-men variable, women were higher than men in the SSSB group, whereas, among participants who did not report SSSB, men and women did not differ on INC-men (see Figures A.3 and A.4 in Appendix A). Finally, there was an interaction between SSSB and sexual orientation identity label for INC-overall and INC-women but not for INC-men. There was no difference between participants reporting SSSB and those not reporting SSSB on INC-overall among heterosexually identified participants. For non-heterosexually identified participants, participants not reporting SSSB were significantly higher on INC-overall than those reporting SSSB. For INC-women, among participants reporting SSSB, there was no difference between the heterosexually identified and non-
heterosexually identified groups. Among participants not reporting SSSB, the non-
heterosexually identified participants were significantly higher on INC-women than
heterosexually identified participants. (See Figures A.5 and A.6 in Appendix A).

This multitude of findings is seemingly difficult to explain in a coherent way. One
possible explanation for some of the findings is that there is a kind of floor effect in
incongruence for any group that would be expected to experience little attraction either to
men or to women (e.g., heterosexually identified women on INC-women). For example, if a
male participant experiences little to no attraction to men (or is strongly deterred by society
from expressing such an attraction), his responses on the CSM may simply be the those that
indicate the lowest possible level of attraction, across the board, leading to no variation and
therefore a low INC-men score. If, however, a participant is attracted to men, there may be
more room for variation in that participant’s responses, leading to more variation and a
higher INC-men score. Looking at Figures A.1 and A.2, generally speaking (in addition to
main effects for heterosexual vs. non-heterosexual identification) groups with the highest
INC-men scores are the groups that would most likely be expected to be attracted to men,
and the groups with the highest INC-women scores are the groups that would most be
expected to be attracted to women.

Two interactions meriting additional theoretical attention are the interactions between
orientation and SSSB for INC-overall and INC-women. As noted, among non-
heterosexually identified participants INC-overall and INC-women are both higher for the
non-SSSB group than they are for the SSSB group. One possible explanation for this finding
is that in order for someone who has not experienced any SSSB to identify as non-
heterosexual, he or she must experience substantial and clear non-heterosexual attraction,
perhaps more than those who have had SSSB experiences. If, as suggested above, incongruence tends to be higher for those experiencing the strongest attractions, then this finding makes sense.

*Do women exhibit more same-sex sexual attraction compared to men?*

The hypothesis that women would show more same-sex attraction was not supported in this sample; across the sample, women were not significantly higher than men on same-sex attraction. For non-heterosexually identifying participants and for participants reporting SSSB, the opposite was found to be true—men exhibited higher same-sex attraction compared to women in both groups. Past research has demonstrated that attitudes towards lesbians generally tend to be more favorable in the general population than attitudes towards gay men (Herek, 2000), a difference replicated in the present sample. By extension, it could be argued that both a non-heterosexual identity and SSSB are more stigmatized for men than for women. If this were true, men would likely need to experience stronger same-sex attraction, compared to women, prior to adopting such an identity or engaging in such behavior. It should also be noted that a large proportion of the women in the sample who were placed in the SSSB group had only engaged in same-sex French kissing, which may be less relevant to sexual attraction for women than it is for men. Anecdotally, many women who identify as heterosexual report having kissed another woman out of curiosity, and scenes of women kissing have become relatively common on television and in movies, whereas one sees male-male kissing only infrequently. For this reason, it may be that SSSB is more strongly tied to same-sex attraction for men than it is for women. Gender differences in same-sex platonic recognition of attractiveness (which was not included in the same sex attraction
variable) were also investigated, with women being higher on this variable than men. It was also found that, for heterosexual men, there was a small negative correlation between same-sex platonic recognition of attractiveness and social desirability. Based on these findings, it may be that men are less likely to recognize other men as attractive, or it may be that they are simply less likely to admit recognizing attractiveness in other men.

Among those reporting SSSB, are men more likely than women to identify as non-heterosexual?

The hypothesis that, among participants reporting SSSB, men would be more likely than women to identify as non-heterosexual was supported for the sample in this study. Compared to the proportion of women in the SSSB group who identified as non-heterosexual, a larger proportion of men in this group identified as non-heterosexual. There was no such proportional difference among participants not-reporting SSSB or across all participants. It seems that for men in this sample, SSSB is more related to a non-heterosexual orientation identity than it is for women, similar to the findings regarding the relation of same-sex attraction to SSSB noted under hypothesis three above.

Are those who report SSSB more positive in their attitudes towards lesbians and gays?

As predicted, participants who reported SSSB were more positive in their attitudes towards gays and lesbians compared to participants not reporting SSSB. Previous studies have indicated (as does the present study) that women (compared to men) and self-identified gays and lesbians (compared to the general population) are more positive in their attitudes towards gays and lesbians (Herek, 1988; 1994). The current study extends these previous findings to individuals who reported engaging in same-sex sexual behaviors.
Is the behavioral data obtained in this study similar to that from Hegna and Larsen (2007)?

It was hypothesized that percentages of male and female respondents in the current study who reported engaging in particular same-sex sexual behaviors would be similar to corresponding percentages of male and female respondents in a former study involving Norwegian youth (Hegna and Larsen, 2007). This hypothesis was largely supported for women but not for men in the current dataset (see tables 5.4 and 5.5). For female respondents, the percentages reporting having engaged in same-sex French kissing, touching/fondling above the waist, touching the genitals of a partner, oral sex, and vaginal and/or anal sex were similar in the two samples. Larger percentages of men in the current sample reported engaging in all of these behaviors compared to Hegna and Larsen’s (2007) findings. Moreover, in the previous study, female respondents reported engaging in all of the aforementioned same-sex sexual behaviors (with the exception of vaginal/anal sex) at rates higher than the male respondents. In the present study this was true only for same-sex French kissing. In the current study, other SSSB (touching the genitals of a partner, oral sex, and vaginal/anal sex), were engaged in by proportionately more men than women. Two obvious differences between the samples are the ages and nationalities of the participants. It was thought that percentages would be similar between the samples because they are somewhat similar in age (the mean age of this simple was 19.40, SD = 2.60; the respondents in the earlier sample were 17 and 18), but it may be that the transition to college makes a large difference, at least for men, in the behaviors in which they engage. There may also be differences between American and Norwegian culture in terms of the acceptability and prevalence of male-male sexual
behavior. However, the present finding is somewhat surprising given the assumptions most make about the liberal leanings of Europe compared to America (Anderson, 2004).

Usefulness of sexual orientation component incongruence as a construct

For the present study, it was decided not to restrict participation to those identifying as non-heterosexual because it was thought that this would make for a diverse sample more representative of the variety of attractions people experience. It was generally found, however, that non-heterosexually identified participants showed more incongruence overall. One could argue that this difference makes sense and that it is perhaps more likely for those identifying as non-heterosexual, which in itself is already risky and socially transgressive, to endorse a more nuanced view of sexuality than the prevailing social construct. For this reason, it may be useful to explore incongruence further, at least initially, using a non-heterosexual sample or simply oversampling this population.

In any case, the concept of sexual orientation component incongruence as well as the method for obtaining incongruence score in this sample demands a great deal more empirical scrutiny. First, additional research needs to be done towards the validation of the components themselves. As previously stated, the respective coefficient alphas were high in the current sample, but so were the total alphas for the CSM and CSW. Future qualitative studies could be used to assess participant’s views on their own sexuality, similar to the work of Diamond (2005) and Friedman et al. (2004). In the quantitative realm, it may be useful to explore questionnaires similar to the CSW and the CSM using factor analysis to explore whether any factors that emerge relate to the components the items were intended to gauge. As previously noted, it may also be helpful to assess
components at different points within a set of measures, to reduce the incidence of participants simply giving identical responses to all items. It may also prove effective to abandon the idea of an inventory altogether and simply assess components with straightforward single items (e.g., On a scale from 1-7, how would you feel about pursuing a romantic relationship with a women?). If the construct validity of sexual orientation component congruence bears further scrutiny, it may be interesting to explore consistency and change in congruence over time, in the same way that past researchers have explored Sexual Identity/Behavior change over time (e.g., Rosario et al., 2006; Diamond, 2006).

The Importance of Examining Multiple Variables Related to Sexual Orientation

Many authors have argued for the importance of examining multiple sexuality-related variables when researching sexual orientation (Chung and Katayama, 1994; Savin-Williams, 2005; Diamond, 2003; Alderson, 2003; Engler et. al, 2005; Friedman et al., 2004; Hammack, 2005; Hegna and Larsen, 2007; Kinsey et al., 1948;1953; Klein, 1990; Silenzio, 2003; Solario et al. 2003). The results of the current study suggest that this is indeed a prudent suggestion. Looking at Table 6.2, it is apparent that only using either sexual orientation identity label, same-sex attraction, or same-sex behavior as markers of same-sex sexual orientation would leave out a great deal of variation from the sample.

Participants were divided into two groups depending on whether they endorsed any same-sex attraction on the CSM for men or the CSW for women.
Table 5.6: Participants organized by selected sexual orientation label, same-sex sexual attraction, and same-sex behavior, \( n \).

<table>
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<th>Selected sexual orientation label</th>
<th>Same-sex sexual attraction</th>
<th>Same-sex Sexual Behavior</th>
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<tbody>
<tr>
<td></td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Heterosexual</td>
<td>197</td>
<td>198</td>
</tr>
<tr>
<td>Non-Heterosexual</td>
<td>42</td>
<td>1</td>
</tr>
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</table>

By dividing the sample based on different markers, the current dataset could be examined in terms of a number of different variables and variable interactions.

One perhaps questionable division in the current study, at least for female participants, was the SSSB division. Similar to Hegna and Larsen’s (2007) study, French kissing was by far the same-sex behavior most often engaged in by women. As stated previously, it could be argued that this represents more of a cultural zeitgeist than a true representation of any kind of same-sex attraction. Indeed, of the 57 women who reported engaging in same-sex French kissing, 44 identified as heterosexual, whereas of the 13 men who reported same-sex French kissing, only 2 reported being heterosexual. Without surveying each of those women, however, it is impossible to know what their experience(s) meant to them. For this reason, it was ultimately decided to use same-sex kissing as part of the SSSB variable for both men and women. Nonetheless, it might still
prove interesting for future researchers to explore the meaning of such behavior in women.

*Sexual orientation labels*

The current study indicates that the labels young people are using to describe their sexual orientation might be in transition. In the current sample, among those who did not identify as heterosexual, only 6 of 43 identified as “gay” (see Table 4.1). These were all male participants, and not a single female participant identified as “lesbian.” Five participants selected the “prefer no label” option, three identified as bisexual, and the rest were spread among various non-traditional options. One of the main points made in *The new Gay Teenager* by Rich Savin-Williams (2005) is precisely this: that the newer generations of sexual minority youth are defining themselves in ways that go beyond gay and lesbian or, alternatively, are choosing not to define or label themselves at all. It may also be that this has always been the case but that our methods of categorization have been historically driven by the traditional gay, lesbian, and bisexual labels. One additional, notable absence is that of the queer label. Not one of 438 participants chose this label. Other authors have suggested that the queer label is becoming increasingly popular among sexual minority youth (Horner, 2007), but this was not the case in the current sample.

*Limitations*

When considering the data from this study, there are important limitations to consider. The first is the nature of the sample. The fact that these were undergraduates enrolled in psychology 100 limits the generalizability of the findings. Most college environments are probably more safe and comfortable for non-heterosexual people than
almost any other setting. This could hugely affect when (and if) people engage in SSSB and/or adopt a non-heterosexual orientation label. The sample was also primarily white. Although it should be noted that most race/ethnic categories were represented proportionately (relative to their proportions in the overall sample) in the SSSB and non-heterosexual groups, a sample size including larger minority sample groups might speak to potential differences, compared to white Americans, in SSSB and preferred sexual orientation label. Additionally, the sample was relatively age restricted. Although it technically ranged from 18-53, the mean age was 19.43 and the standard deviation was only 2.60. Finally, the sample was drawn exclusively from a Midwestern university. It is entirely possible that a sample including participants residing in other geographical regions could have responded differently to certain items (e.g., perhaps such groups would be more likely to select the “queer” label).

Similar to small racial/ethnic subgroups, the number of participants reporting same-sex sexual behavior (n = 80) and the number who did not identify as heterosexual (n = 43) were both relatively small. As previously stated, future studies of sexual orientation component congruence may benefit from exclusively sampling from or oversampling of sexual minority populations. Additionally, women were overrepresented in the sample by nearly a 2 to 1 margin. There is also the issue of participant self-selection. It is possible that the sample in the current study represents a group of people who are more open about their sexuality and that this is, at least in part why they chose to participate in this study.

Conclusions
Conceptualizing sexual orientation in terms of different components is a relatively new idea that must bear further empirical scrutiny. The current study provided only equivocal validation of such components, and as such analyses involving them must be interpreted with caution. However, it can also be argued that the current study has made a unique contribution to the literature in exploring incongruence among sexual orientation identity components. Sexual orientation component incongruence was generally not found to be related to psychological well-being, the sole exception being that, among those participants who reported having engaged in same-sex sexual behaviors, incongruence was positively correlated with depression. Participants who reported a non-heterosexual identity tended to have higher overall incongruence scores. Incongruence in attraction to women was highest among non-heterosexual women and incongruence in attraction to men was highest among non-heterosexual men.

For men, same-sex sexual behavior, especially Same-sex kissing, seemed to be more associated with sexual orientation identity than it was for women. Similar to past findings regarding gay and lesbian participants, participants reporting same-sex sexual behavior exhibited more positive attitudes towards gays and lesbians. Proportions of women engaging in various same-sex sexual behaviors was similar to the proportions found in a previous study with Norwegian youth (Hegna and Larsen, 2007), but proportions of male participants who reported engaging in same-sex sexual behaviors were generally higher. Additionally, within-sample gender differences were reversed for the two samples, with women generally reporting more same-sex sexual experiences in the Hegna and Larsen (2007) study and men reporting more same sex sexual behaviors in the current study. Similar to the Norwegian study, the current study underscored the
importance of using multiple variables when studying same-sex sexuality. There were overlaps in groups reporting same-sex sexual behavior, same-sex sexual attraction, and those reporting a non-heterosexual identity, but those groups were far from identical.
REFERENCES


APPENDIX A

TABLES AND FIGURES
<table>
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<th>Sexual Behaviors with Men</th>
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<td>Touching genitals of partner</td>
<td>Oral sex</td>
<td>Vaginal and/or anal sex</td>
<td>None of the above</td>
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<td><strong>Men (n=183)</strong></td>
<td>Ever</td>
<td>7.1 (13)</td>
<td>8.2 (15)</td>
<td>8.7 (16)</td>
<td>7.1 (13)</td>
<td>4.4 (8)</td>
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<td></td>
<td>Previous year</td>
<td>6.6 (12)</td>
<td>6.0 (11)</td>
<td>6.0 (11)</td>
<td>5.5 (10)</td>
<td>4.4 (8)</td>
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<tr>
<td><strong>Women (n=255)</strong></td>
<td>Ever</td>
<td>89.4 (228)</td>
<td>86.3 (220)</td>
<td>82.4 (210)</td>
<td>74.5 (190)</td>
<td>63.9 (163)</td>
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<tr>
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<td>Previous year</td>
<td>87.5 (223)</td>
<td>84.7 (216)</td>
<td>80.4 (205)</td>
<td>69.8 (178)</td>
<td>62.0 (158)</td>
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<td>Touching/fondling above waist</td>
<td>Touching genitals of partner</td>
<td>Oral sex</td>
<td>Vaginal and/or anal sex</td>
<td>None of the above</td>
</tr>
<tr>
<td><strong>Men (n=183)</strong></td>
<td>Ever</td>
<td>80.9 (148)</td>
<td>80.3 (147)</td>
<td>71.6 (131)</td>
<td>67.2 (123)</td>
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<td>74.3 (136)</td>
<td>73.2 (134)</td>
<td>66.1 (121)</td>
<td>60.7 (111)</td>
<td>51.4 (94)</td>
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<tr>
<td><strong>Women (n=255)</strong></td>
<td>Ever</td>
<td>22.4 (57)</td>
<td>9.8 (25)</td>
<td>2.7 (7)</td>
<td>2.4 (6)</td>
<td>0.4 (1)</td>
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<td></td>
<td>Previous year</td>
<td>9.8 (25)</td>
<td>5.1 (13)</td>
<td>1.6 (4)</td>
<td>0.8 (2)</td>
<td>0.0 (0)</td>
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Table A.1: Sexual behaviors reported by participants, %, (n).
Figure A.1: INC-women score as a function of gender and sexual orientation identity label.

Figure A.2: INC-men score as a function of gender and sexual orientation identity label.
Figure A.3: INC-overall score as a function of gender and same-sex sexual behavior.

Figure A.4: INC-men score as a function of gender and same-sex sexual behavior.
Figure A.5: INC-overall score as a function of sexual orientation identity label and same-sex sexual behavior.

Figure A.6: INC-women score as a function of sexual orientation identity label and same-sex sexual behavior.
APPENDIX B

MEASURES
The following set of statements relate to feelings, thoughts, and attractions you have for men (males around your own age or older). On some days or during certain weeks, feelings and attractions are really intense and sometimes they are really weak. In responding to the items, think about feelings and attractions that are typical and average for you.

For each of the following items, please select a number from 1 to 5, depending on whether you believe the statement applies to you or not. If you strongly agree that the item does describe you and your feelings, please choose “5.” If you strongly disagree, please choose “1.” If you are unsure or can’t decide whether you agree that the statement applies to you, please choose “3.” If you agree or disagree, but not strongly, you may choose “2” for disagree or “4” for agree.

(Likert scale appeared here in online version)

1. I have sexual thoughts about many different men.
2. I have an especially strong physical reaction around a particular man.
3. I do not want to have a romantic relationship with a man.
4. I never feel sexually excited around men.
5. I sometimes have sexual fantasies about men.
6. I have a lot of sexual thoughts about a particular man or particular men.
7. It sometimes occurs to me that certain men I know are attractive.
8. I never have sexual thoughts about men.
9. I often think about going on dates with men.
10. For me, there is nothing physically attractive about men.
11. I sometimes have “crushes” on men.
12. I do not think it’s very likely that I would fall in love with a man.
13. I feel physical, sexual feelings for a number of different men.
14. There are men who I think are attractive.
15. Being around certain men gives me a feeling of excitement in my body that I do not feel elsewhere.

16. I can tell if a man is attractive or not.
The following set of statements relate to feelings, thoughts, and attractions you have for women (females around your own age or older). On some days or during certain weeks, feelings and attractions are really intense and sometimes they are really weak. In responding to the items, think about feelings and attractions that are typical and average for you.

For each of the following items, please select a number from 1 to 5, depending on whether you believe the statement applies to you or not. If you strongly agree that the item does describe you and your feelings, please choose “5.” If you strongly disagree, please choose “1.” If you are unsure or can’t decide whether you agree that the statement applies to you, please choose “3.” If you agree or disagree, but not strongly, you may choose “2” for disagree or “4” for agree.

(Likert scale appeared here in online version)

1. I have sexual thoughts about many different women.
2. I have an especially strong physical reaction around a particular woman.
3. I do not want to have a romantic relationship with a woman.
4. I never feel sexually excited around women.
5. I sometimes have sexual fantasies about women.
6. I have a lot of sexual thoughts about a particular man or particular women.
7. It sometimes occurs to me that certain women I know are attractive.
8. I never have sexual thoughts about women.
9. I often think about going on dates with women.
10. For me, there is nothing physically attractive about women.
11. I sometimes have “crushes” on women.
12. I do not think it’s very likely that I would fall in love with a woman.
13. I feel physical, sexual feelings for a number of different women.
14. There are women who I think are attractive.
15. Being around certain women gives me a feeling of excitement in my body that I
do not feel elsewhere.

16. I can tell if a woman is attractive or not.
Please indicate you agreement or disagreement with the following items by choosing the number that best indicates your feelings. Choosing 1 means that you strongly disagree with the statement, choosing 5 indicates that you are not sure, and choosing 9 means that you strongly agree with the statement.

1. Lesbians just can’t fit into our society.

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<th>5</th>
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<tr>
<td></td>
<td>strongly disagree</td>
<td>not sure</td>
<td>Strongly agree</td>
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2. A woman’s homosexuality should \textit{not} be a cause for job discrimination in any situation.

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3. Female homosexuality is detrimental to society because it breaks down the natural divisions between the sexes.

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4. State laws regulating private, consenting lesbian behavior should be loosened.

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5. Female homosexuality is a sin.

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6. The growing number of lesbians indicates a decline in American morals.

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7. Female homosexuality in itself is no problem, but what society makes of it can be a problem.

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8. Female homosexuality is a threat to many of our basic social institutions.

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9. Female homosexuality is an inferior form of sexuality.

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10. Lesbians are sick.

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11. Male homosexual couples should be allowed to adopt children the same as heterosexual couples.

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12. I think male homosexuals are disgusting.

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13. Male homosexuals should not be allowed to teach school.

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14. Male homosexuality is a perversion.

1 strongly disagree 2 3 4 5 not sure 6 7 8 9

15. Just as in other species, male homosexuality is a natural expression of sexuality in human men.

1 strongly disagree 2 3 4 5 not sure 6 7 8 9

16. If a man has homosexual feeling he should do anything he can to overcome them.

1 strongly disagree 2 3 4 5 not sure 6 7 8 9

17. I would *not* be too upset if I learned that my son were homosexual.

1 strongly disagree 2 3 4 5 not sure 6 7 8 9

18. Homosexual behavior between two men is just plain wrong.

1 strongly disagree 2 3 4 5 not sure 6 7 8 9

19. The idea of male homosexual marriages seems ridiculous to me.

1 strongly disagree 2 3 4 5 not sure 6 7 8 9

20. Male homosexuality is merely a different kind of lifestyle that should *not* be condemned.

1 strongly disagree 2 3 4 5 not sure 6 7 8 9
Using the scale below as a guide, choose the number that best indicates how much you agree with each statement below.

1 -------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7
Not true Somewhat true Very true

1. My first impressions of people usually turn out to be right.
2. It would be hard for me to break any of my bad habits.
3. I don’t care to know what other people really think of me.
4. I have not always been honest with myself.
5. I always know why I like things
6. When my emotions are aroused it biases my thinking
7. Once I’ve made up my mind, other people can seldom change my opinion.
8. I am not a safe driver when I exceed the speed limit.
9. I am fully in control of my own fate.
10. It’s hard for me to shut off a disturbing thought.
11. I never regret my decisions.
12. I sometimes lose out on things because I can’t make my mind up soon enough.
13. The reason I vote is because my vote can make a difference.
14. My parents were not always fair when they punished me.
15. I am a completely rational person.
16. I rarely appreciate criticism.
17. I am very confident of my judgments.
18. I have sometimes doubted my ability as a lover.
19. It’s alright with me if some people happen to dislike me.
20. I don’t always know the reasons I do the things I do.
21. I sometimes tell lies if I have to.
22. I never cover up my mistakes.
23. There have been occasions when I have taken advantage of someone.
24. I never swear.
25. I sometimes try to get even rather than forgive and forget.
26. I always obey laws, even if I’m unlikely to get caught.
27. I have said something bad about a friend behind his or her back.
28. When I hear people talking privately, I try not to listen.
29. I have received too much change from a salesperson without telling him or her.
30. I always declare everything at customs.
31. When I was young I sometimes stole things.
32. I have never dropped litter on the street.
33. I sometimes drive faster than the speed limit.
34. I never read sexy books or magazines.
35. I have done things that I don’t tell other people about.
36. I never take things that don’t belong to me.
37. I have taken sick-leave from work or school even though I wasn’t really sick.
38. I have never damaged a library book or store merchandise without reporting it.
39. I have some pretty awful habits.
40. I don’t gossip about other people’s business.
Sexual behaviors Questionnaire

Which of the following have you ever engaged in with a male partner?

- French kissing
- Touching/fondling above the waist
- Touching the genitals of partner
- Oral sex
- Vaginal/anal sex
- None of the above

Which of the following have you engaged in with a male partner in the past year?

- French kissing
- Touching/fondling above the waist
- Touching the genitals of partner
- Oral sex
- Vaginal/anal sex
- None of the above

Which of the following have you ever engaged in with a female partner?

- French kissing
- Touching/fondling above the waist
- Touching the genitals of partner
- Oral sex
- Vaginal/anal sex
- None of the above

Which of the following have you engaged in with a female partner in the past year?

- French kissing
- Touching/fondling above the waist
- Touching the genitals of partner
- Oral sex
- Vaginal/anal sex
- None of the above
Demographics

What is your age? _________

What is your gender?

- Male
- Female
- Transgendered

What is your race/ethnicity?

- White/Caucasian
- Latino/Hispanic
- Black/African-American
- Asian/Pacific Islander
- Native American
- Bi- or Multi-racial (please specify) _______________
- Other (please specify) _______________

In terms of your sexual orientation, which of the following applies best to you?

- Straight/heterosexual
- Prefer no label
- Gay
- Lesbian
- Bisexual
- Queer
- Straight but questioning
- Not straight
- Not sure
- Attracted to the person
- Straight but sometimes attracted to the same sex
- Bisexual with stronger attraction to women
- Bisexual with stronger attraction to men
- I prefer a label that is not listed (please specify) __________
APPENDIX C

RECRUITMENT EMAIL,
ONLINE CONSENT FORM
AND
DEBRIEFING FORM
Recruitment Email

Hello,

You have signed up for the on-line survey about sexual and romantic attraction. You can actually do the survey at home. BELOW ARE THE DIRECTIONS FOR GETTING TO THE SURVEY AND THE CODE YOU NEED. In order to get the credit you must complete the survey by 5pm on the day you signed up to participate. Thanks for signing up and please read all the directions.

My name is Chad Corbley, and I am a graduate student in the Counseling Psychology Ph.D. Program in the Department of Psychology at The Ohio State University. Along with my advisor, Don Dell, I am conducting a research study exploring people’s sexual and romantic attractions. The only requirement for participation is that you are 18 years of age or older.

The survey will take approximately 15-25 minutes to complete. You may complete the survey now, or at any time before 5pm on the day you signed up to participate on the REP website. YOU WILL BE PROMPTED TO ENTER A CODE NUMBER ON THE SURVEY. YOUR CODE NUMBER IS: . Please note that in order to receive REP credit you must enter the code number when prompted on the survey.

Many of the questions included in this survey ask about feelings and attractions you may wish to keep private, such as sexual attractions and sexual behaviors. Some of these questions will be quite personal. Participants concerned about keeping such things private are thus discouraged from completing the surveys at places of employment or any other public space where others might read your responses. You should also be sure you know your employer’s policies on use of equipment and time before you decide to complete this survey at your workplace.

If you have read this email and would like to take the survey, please click on the URL below or copy and paste the link into your web browser:

http://www.surveymonkey.com/s.asp?u=971232365196

Due to the nature of Internet research, the security of the survey data during transmission cannot be guaranteed; however, no identifying information is required. Security is guaranteed once the researchers receive the data. Your responses will be kept strictly confidential. If you would like further information about this study, please do not hesitate to contact me at corbley.1@osu.edu. You may also contact my advisor Dr. Don Dell at dell.1@osu.edu.

The methods of this research and the plan for protection of rights of participants have been reviewed and approved by the Office of Responsible Research Practices (http://www.orrp.ohio-state.edu/), which oversees all research activities conducted at The Ohio State University. This plan received Institutional Review Board approval in September 2007.

Thank you very much for your time and participation!

Sincerely,

Chad D. Corbley, M.A.
Online-consent form

The Ohio State University Consent to Participate in Research

Study Title: Components of Sexuality
Researcher: Don Dell, Ph.D. and Chad Corbley, M.A.

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to check a box to indicate that you have consented.

Purpose:

The following study focuses on exploring different aspects of sexual and romantic attraction. The purpose of the study is to explore how students’ perceive their own sexual and romantic attractions for other people. By participating, you will provide valuable information that will help psychologists and others better understand the nature of interpersonal attraction.

Procedures/Tasks:

The entire survey will be completed on-line. This study contains a few questionnaires that ask a variety of questions regarding your sexual and romantic attractions for other people, as well as sexual behaviors. Some of these questions will be quite personal. You will also complete two questionnaires related to issues of self-esteem and depression. Additionally you will be asked to provide some demographic information, such as age, sexual orientation, race and gender. Please note that your name in no way will be attached to the information you provide. Overall, the study contains approximately 130 items to respond to, which altogether should take around 25 to 40 minutes of your time.

Duration:

This survey will take approximately 25-40 minutes. You may discontinue the study at any time by simply proceeding to the final page. If you decide to stop participating in the study, there will be no penalty to you. Your decision will not affect your future relationship with The Ohio State University.

Risks and Benefits:

Due to the nature of Internet research, the security of the survey data during transmission cannot be guaranteed; however no identifying information is required. Security is guaranteed once the researchers receive the data.

Confidentiality:

Efforts will be made to keep your study-related information confidential. However, there may be circumstances where this information must be released. For example, personal information
regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research):

- Office for Human Research Protections or other federal, state, or international regulatory agencies;
- The Ohio State University Institutional Review Board or Office of Responsible Research Practices;
- The sponsor, if any, or agency (including the Food and Drug Administration for FDA-regulated research) supporting the study.

Participant Rights:

You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By signing this form, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The Ohio State University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Contacts and Questions:
For questions, concerns, or complaints about the study you may contact corbley.1@osu.edu or dell.1@osu.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

Signing the consent form

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by consenting to take part in this study.

In order to continue with the survey, you must indicate your agreement here. If you agree with the above, please indicate your agreement by clicking "yes" below.

- Yes
- No
Understanding Sexual Orientation

The study you just participated in focused on attractions people have towards men and women. Research in this area has traditionally focused on only a few sexual orientation categories, such as gay/lesbian (homosexual), straight (heterosexual), and bisexual. Newer research has suggested that everyone may not fall neatly into one of those categories, and that sexual orientation may be more complicated than previously thought.

This aim of this study was to explore different possible components of sexual orientation in a college-aged sample. Proposed components include physical sexual attractions, cognitive (thought based) attractions, and romantic attractions. Researchers have suggested that sexual orientation may be broken down this way. We wanted to see how well that breakdown would fit for a large sample of college students. Separately, we also assessed sexual behaviors and stated sexual orientation identity (whether a person identifies as straight, gay, bisexual, etc. or chooses to use no label) to see whether behaviors and identity always go hand-in-hand with sexual orientation.

We also assessed depression, self-esteem, and a few other variables to see if these were related to the other measures. Specifically, we wanted to see if congruence among different components of sexual orientation as well as stated identity was related to psychological well-being. For example, if a person reports romantic attraction towards women but physical attraction towards men, or if a person identifies as straight but reports significant attractions for the same sex, would this be related to higher depression and lower self esteem?

Please feel free to ask any questions about the study or the concepts presented. If you have any questions or want to hear about the results, you can contact the Principal Investigator, Dr. Don Dell at dell.1@osu.edu; or the Co-Investigator, Chad Corbley at corbley.1@osu.edu. If you find yourself troubled by any of the items you responded to today, feel free to contact either the investigator or the co-investigator, or you may contact OSU’s counseling center (contact information below).

Counseling and Consultation Services
Younkin Success Center, 4th Floor
1640 Neil Avenue
Columbus, OH 43210
(614) 292-5766
http://www.ccs.ohio-state.edu/

Thank you very much for your participation!