

THINKING 'STRAIGHT': HETERONORMATIVITY AND ASSOCIATED
OUTCOMES ACROSS SEXUAL ORIENTATION

by

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For Lauren, Alex, Julianne, and Tobin

May you be accepted and loved for all that you are.

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CHAPTER I

INTRODUCTION

The central focus of this study is an examination of heteronormativity and its critical role in linking cognitive styles, attitudes, sexual orientation, and psychological well-being. Previous research has demonstrated relationships between personality variables and prejudicial attitudes against sexual minorities (Cullen, Wright, & Allesandri, 2002; Tee & Hegarty, 2006), and the relevance of personality and defense styles in adjusting to sexual identity (Allen, 2001), but more work is needed to better understand the extent to which attitudes and beliefs about sexual orientation, political ideology, and related personality variables such as right-wing authoritarianism, tolerance of ambiguity, and openness to experience predict psychological well-being among heterosexuals and sexual minorities.

The following sections in this chapter summarize current literatures relevant to this study. Several concepts central to this study, particularly heteronormativity, sexual orientation, and gender roles, are complex, difficult to define, and even contentious. Therefore, I have carefully examined the literatures on these topics to develop comprehensive, yet parsimonious, operational definitions. I have also outlined recent literatures on the measurement of political attitudes, social desirability as it relates to research on sensitive topics such as sexual orientation, and the mental health outcome variables in this study: depressive symptoms, self-esteem, and life satisfaction. A series of hypotheses, based on three core research questions, follows the presentation of these literatures. The research questions are: (1) How do sexual orientation and gender relate to personality constructs such as right-wing authoritarianism (RWA), tolerance of ambiguity, openness to experience, and heteronormative attitudes and beliefs? (2) What are the correlates and consequences of heteronormativity among heterosexuals? and (3) How does heteronormativity relate to mental health outcomes among sexual minorities?

Heteronormative Attitudes and Beliefs

This study is based on a premise that heteronormativity, the privileging of heterosexuality that results in social pressures to fulfill and conform to heterosexual roles (Kitzinger, 2005; Nielsen, Walden, & Kunkel, 2000), leads individuals to conceive of themselves and their social worlds in particular ways (e.g., people are either male or female, should partner with others of the opposite sex, and should act and feel in accordance with social expectations of males or females). Kitzinger (2005, p. 478) describes heteronormativity as “the myriad ways in which heterosexuality is produced as a natural, unproblematic, taken-for-granted phenomenon.” Heteronormativity sets up unconscious and automatic assumptions about heterosexuality as the norm and all other types of sexual experience as abnormal. One major idea underlying this research is that heteronormativity may explain variation in health and mental health outcomes for some groups. Specifically, recent studies indicate that sexual minority (e.g., lesbian, gay, bisexual, and transgender) individuals are more susceptible than the general population to negative mental health outcomes (Meyer, 2003; Warner, et al, 2004), although these outcomes can often be explained by the “minority stress” (Meyer, 2003, p. 675) caused by heteronormative social pressures, prejudice, and discrimination targeted at sexual minorities.

Understanding how the constructs of heteronormativity and sexual orientation relate to one another may help us to make sense of mental health outcomes for heterosexuals as well as lesbians, gay men, bisexual and transgender individuals, and others who transgress the rigid expectations that characterize a heteronormative society (see Bosson, Prewitt, Freilino, & Taylor, 2005 for empirical data on the consequences of role violations). I am therefore investigating differences in levels of heteronormativity by sexual orientation as well as differences by sexual orientation in the relationships among heteronormativity, personality variables, and mental health outcomes.

Definitions. Heteronormativity, or the normalization of heterosexuality, exists across multiple social domains. It is maintained and perpetuated by social institutions such as marriage as well as by everyday actions taken by individuals. It is an unseen force that dictates the boundaries of presumed normal sexuality and even normal social interactions. Elia (2003) and Hegarty, Pratto, and Lemiux (2004) described how social

institutions (often implicitly) reproduce assumptions about heterosexuality as the norm and perpetuate privilege for those who ‘fit’ into the prescribed mold of heterosexuality. However, as Jackson (2006) wrote, “normative heterosexuality regulates those kept within its boundaries as well as marginalizing and sanctioning those outside them” (p. 105). In other words, heteronormativity affects individuals regardless of sexual orientation, proscribing and requiring different kinds of actions and experiences based on gender, and creating categories of acceptable and unacceptable groups of people (see Hegarty, Pratto, & Lemieux, 2004). Rich’s (1980) conceptualization of compulsory heterosexuality was, as Jackson (2006) noted, an important forerunner of the concept of heteronormativity; Rich questioned the practice of accepting heterosexuality as a normal, expected result of development – of never questioning how one develops a “preference” for an opposite sex partner, while arbitrarily pathologizing and questioning the development of those who are drawn to same sex partners (Rich, 1980, p. 633). Eliason’s work provides empirical evidence consistent with these theories of heteronormativity; she found that most heterosexual students in her study demonstrated foreclosed sexual identities (see Marcia, 1987) in that they had merely accepted the identities “imposed on them by society, religion, their gender, or their parents’ expectations” (Eliason, 1995, p. 832).

In the present study, I am focusing on the cognitive and attitudinal facets of heteronormativity. As such, heteronormativity may be defined as (1) beliefs and assumptions that people are heterosexual unless they indicate otherwise and (2) beliefs and attitudes about the social and personal benefits of heterosexuality. Everyday and institutionalized practices surely play an important role in perpetuating such attitudes and beliefs, and scholarship should investigate the many social causes and consequences of heteronormativity. My contribution with this dissertation is to closely examine one facet of this phenomenon: individual tendencies to internalize and express heteronormative social expectations.

Measure development. The concept of heteronormativity is widely considered in gender studies as a fundamental contributor to prejudice and oppression based on heterosexism, homophobia, and sexism (e.g., Blasius, 2000; Grace, 1999; Lancaster, 2003; Phelan, 2001; all cited in Kitzinger, 2005; also see Tee & Hegarty, 2006).

However, this construct has received little attention in the field of psychology. Although one measure of heteronormativity does exist (Tolley & Ranzijn, 2006), the items were constructed specifically for a study on professionals' attitudes towards sexual minority patients in aged care facilities. Therefore, a preliminary goal of the current study was to develop a new measure of heteronormative attitudes and beliefs. The development of this measure was based in part on previous research about beliefs about sex and gender (Tee & Hegarty, 2006) and attitudes towards sexual minorities (Herek, 1994), which were expected to share some conceptual ground with heteronormativity. In addition, right-wing authoritarianism (Altemeyer, 1998) has been shown to correlate highly with negative attitudes towards sexual minorities (Whitley, 1999) and was expected to correlate with the new measure of heteronormativity.

A key set of hypotheses in the present study centers on personality and psychological well-being variables as they relate to heteronormative attitudes. Based on the literature, I expected heteronormative attitudes to covary with aspects of personality such as (low) tolerance of ambiguity, (low) openness to experience, and (high) right-wing authoritarianism (RWA).

Sexual Orientation

Perhaps due in part to the breadth of the domain, there is substantial variance in the use of constructs and terminology related to sexual orientation (APA, 1991; Kauth, 2005). Sometimes the same terms are used to represent different concepts, and sometimes the same concepts are represented by different terms. Even when scholars agree on how to define categories and phenomena, the words they use may not match how research participants describe their identities and experiences. My approach, described in greater detail in the following section, is to study three major categories of sexuality covered in the literature: psychological orientation (e.g., fantasy and attraction); behavioral orientation (e.g., relationships and sexual interactions); and identity, or self-labeling. I have also assessed identity disclosure and fluidity of orientation, or the degree to which individuals' psychological, behavioral, and identity aspects of sexuality vary across time.

Following the literature (APA, 1991; Herek, 1994), I use the term ‘sexual orientation’ to summarize these three categories of sexuality: psychological orientation, behavioral orientation, and identity. Additionally, I use the term ‘sexual minority’ to refer to all whose behavior, psychological orientation, or identity is at least somewhat same-sex oriented. However, I do not purport to have solved the complex dilemma of inconsistent definitions and terminology in this field, and I do not intend to legislate boundaries around constructs by providing definitions. In theory, defining categories of sexual experience and identity is at odds with the critique of heteronormativity implied above. I acknowledge that there are alternative ways in which to conceptualize sexual orientation, and that the framework I am providing is somewhat arbitrary. The reader should keep in mind, for instance, that research participants’ understandings of the concepts under investigation may vary, and I have asked study participants to define sexual experiences and identities in their own words in addition to asking closed-ended questions. Nonetheless, invoking the language of categories in order to study patterns of experiences and identities can be both empirically and politically useful. My intention was to create a conceptual framework with which to understand and interpret data collected for this study.

Defining sexual orientation. The study of sexuality encompasses a wide range of topics, including anatomical and physiological phenomena, behavior, desire, and identity, or sexual self-concept (Anderson & Cyranowski, 1995; Byer & Shainberg, 1994, as cited in Amestoy, 2001). Generally speaking, sexual orientation has been represented as including one or more aspects of sexuality (e.g., attraction, behavior, desire, identity) that extend beyond physiological and biological processes. Even before the invention of the term ‘sexual orientation,’ distinctions were made by scientists among sexual physiology, behavior, and “psychological” components of sexuality (Sell, 1997, p. 647). However, inconsistency of concepts and definitions across studies of sexual orientation makes it difficult to know, unless explicitly stated, precisely what is meant by ‘sexual orientation’ (Kauth, 2005). According to some scholars, for instance, sexual orientation is assumed to be synonymous with sexual behavior *or* desire/attraction (Beach, 1950; Levay, 1993; and Weinrich, 1994; all cited in Sell, 1997), while in others it is defined as the combination of sexual behavior *and* feelings (Francoeur, et al, 1991, as cited in Sell, 1997; Kinsey, et al,

1948). In still other approaches, sexual orientation has been represented as an overarching construct comprised of at least three domains or facets (Amestoy, 2001; Herek, 1994; Klein, Sepekoff, & Wolf, 1985). More recently, multi-dimensional conceptualizations of sexual orientation have become more prominent in the social sciences (Amestoy, 2001).

There is empirical support for distinguishing among domains of sexual orientation. Rust (1992), for example, provided examples of women with similar sexual behavior histories who made sense of their histories in different ways such that some of them identified as bisexual and some as lesbian. In addition, Amestoy (2001) found that fantasies were not always consistent with sexual orientation labels (e.g., heterosexual, lesbian, bisexual), behaviors, and attraction; and both Rothblum (2000) and Golden (1987; as cited in Morris, Waldo, & Rothblum, 2001) have argued for making distinctions among sexual orientation labels, sexual behavior, and lesbian, gay, bisexual, and transgender (LGBT) community involvement. Laumann, Gagnon, Michael, and Michael (1994; cited in Sell & Silenzio, 2006) found similar results in their National Health and Social Life Survey, thus demonstrating not only that the three domains are different, but also that measurement of these domains identifies three “different (albeit overlapping) populations” of people sexually oriented towards same-sex partners (Sell & Silenzio, 2006, p. 38). There are also critiques of these multidimensional measures; Weinrich et al (1993), for instance, factor analyzed data collected using the Klein Sexual Orientation Grid (1985) and found that a large percentage of variance could be accounted for by a single factor. Nonetheless, the general consensus in the literature is support for multifaceted assessments of sexual orientation.

Among those who agree that sexual orientation is a multidimensional, overarching construct, there remain differences in the measurement and inclusion of particular domains. Herek (1994), for example, listed identity, attraction, and behavior as three elements of sexual orientation, whereas Klein, Sepekoff, and Wolf (1985) defined sexual orientation as including seven domains (sexual attraction, sexual behavior, sexual fantasies, emotional preference, social preference, self-identification, and lifestyle/community involvement) across three time frames (present, past, and ideal future). Although representations of sexual orientation differ, the three domains of

identity, behavior, and attraction are commonly included in definitions of sexual orientation (Sell, 1997; Sell & Silenzio, 2006). The present study has therefore included these three domains, as well as three others found in the literature: fantasy (Kinsey, et al, 1948; Klein, Sepekoff, & Wolf, 1985), fluidity (Diamond, 2000; Rust, 1992), and sexual identity disclosure (see Morris, 1997 and Morris, Waldo, & Rothblum, 2001 for studies on *outness*, or sexual identity disclosure among sexual minorities).

A second issue in the study of sexual orientation concerns dichotomous and categorical labeling of sexual orientation domains versus measurement on a continuum. Kinsey et al's (1948; 1953) pioneering research measured sexual orientation on a seven-point scale ranging from exclusively heterosexual to exclusively homosexual. Rothblum (2000), among others, has indicated support for such an approach. In contrast to accepting participants' self-labeled identities as evidence of variation in sexual orientation, others such as Fergusson, et al (2005) have endorsed statistically derived categorizations (i.e, latent class analysis derived from participants' reports of behavior and attraction); their study determined that three classes of sexual orientation exist: exclusively heterosexual, predominantly heterosexual with some same-sex inclinations, and predominantly homosexual.

Because of the variety of definitions and criteria represented in recent literature, social scientists must be explicit about the subject of study when investigating sexual orientation. Researchers should be clear about whether they wish to learn about sexual behavior, attractions, self-defined identities, or a combination of these or other domains of sexuality. Further, the terms used in surveys and interviews may affect how participants understand and answer questions, and the meanings of resulting data will depend on participants' (and researchers') worldviews and historical context (see Stanley, 1997; Haraway, 1991; Harding, 1986; Heckman, 1997; Stanley, 1997; Unger, 1998).

The current study has been constructed with particular concern for the definitions of constructs related to sexual orientation and the wording of survey items meant to capture individuals' sexual experiences and identities. This study builds on previous research by viewing sexual orientation as a multifaceted construct (e.g., Klein, Sepekoff, & Wolf, 1985; Rothblum, 2000) in which each domain may be measured along a continuum (e.g., Kinsey, 1948). Three main domains of sexual orientation

(psychological orientation, as measured by fantasy and attraction; behavioral orientation; and identity) were investigated. In addition, sexual fluidity was assessed across the three domains, and an additional facet of sexual identity disclosure was considered for all participants. Having described the theoretical basis for this approach, I will now define the six components of sexual orientation considered in the present study: attraction, fantasy, behavior, fluidity, identity, and identity disclosure (i.e., outness).

Six domains of sexual orientation. Attraction, fantasy, and behavior are perhaps the most familiar aspects of sexual orientation. Respectively, they are defined by the sex of those people to whom one feels attracted, about whom one fantasizes, and with whom one has sexual relations. Although these three components are often consistent with one another, there are sometimes discrepancies, as noted above (e.g., Amestoy, 2001; Rothblum, 2000). For example, a man can have sex only with women but fantasize about and/or be attracted to men. Alternatively, a woman can primarily have sex with men, be primarily attracted to women, and fantasize about both men and women.

The fourth domain, sexual orientation fluidity, may be defined in two ways. First, the concept of sexual fluidity invokes consideration of bisexual identities. This is because bisexuals' attractions and behaviors are said to encompass all of the space between exclusive same-sex and exclusive opposite-sex orientations. Rust (1997), working primarily in the area of bisexual identity, is particularly attuned to the importance of attending to fluidity; she wrote:

Changes in self-identity may in fact be necessary in order to maintain an accurate description of one's social location within a changing social context; hence, changes in self-identity are to be expected of psychologically and socially mature individuals. (pp. 44-45)

The current study distinguishes between bisexuality and sexual orientation fluidity, or the degree of variance over time in the sex of people towards which one is oriented sexually (this would include variance in behavior, attraction, fantasy, and/or identity). Whereas bisexuality is experienced by many as the *consistent* attraction towards both males/men and females/women, overall variance in sexual orientation can be seen as distinct from bisexuality. In addition, it is important to distinguish between *behavioral* bisexuality (or a history of sexual behavior with both men and women) and a bisexual *identity*. Because not all people who have sex with both men and women would

identify as bisexual, I have used the phrase “bisexual/between” in the current study to categorize those whose sexual identity labels fall somewhere between exclusively heterosexual and exclusively lesbian/gay.

As indicated by Diamond’s (2000) review of the literature, there is some evidence that women are more sexually fluid than men. For instance, Baumeister concluded that there is substantial evidence for greater “erotic plasticity” in women (2000; p. 348), in that they are more likely than men to vary in sexual behavior and desire during their lives. In part due to evidence of greater fluidity among women, Peplau and colleagues (1998) have noted that different theories of sexual identity development are needed for men and women.

The fifth domain of sexual orientation in the current study is sexual identity, which may be defined as how a person conceives of him/herself with respect to sexual orientation (i.e., the label used to describe sexual orientation). Identity is arguably the most subjective element of sexual orientation and may change over time (see Diamond, 2000; Rust, 1992). Recent social science literature provides a range of definitions of sexual identity. Some acknowledge the intersectionality of other identities such as class, race, and gender (Brown, 1995; Diamond, 2006; Omoto & Kurtzman, 2006); some emphasize the Eurocentric nature of most definitions and warn against making universal claims about identity (Chan, 1989; Fox, 1995; Freedman, 1984, cited in Vicinus, 1989; Vance, 1989); some cite the historically situated production of identity (Foucault, 1978; Weeks, 1989); and others claim (often in the service of civil rights advocacy) that sexuality is an inherent, constant trait (see Brown, 1995; Vance, 1989). From this body of research, we may conclude that identity as an enduring and essential characteristic is a contestable position and social science research, therefore, should make room for the possibility of fluid identities. In addition, the epistemological assumptions underlying definitions of sexual orientation, particularly sexual identity, vary widely.

Disclosure of sexual identity is the sixth domain under consideration in the present study. With respect to sexual minorities (i.e., non-heterosexuals), such disclosure is commonly referred to as *outness*. Outness has been observed to correlate with a wide range of mental health outcomes, including lower suicidality and lower psychological distress (Morris, Waldo, & Rothblum, 2001); lower anxiety and higher self-esteem

(Jordan & Deluty, 1998, as cited in Morris, Waldo, & Rothblum, 2001). Interestingly, physical health has also been implicated in studies of outness; Cole (2006), reports a series of studies showing greater risk of physical illness among gay men who have not disclosed their sexual identities. In addition to measuring outness among sexual minority participants, this study also assessed heterosexual participants' disclosure of sexual identity to others.

In the next two sections, I have reviewed the origin of (homo)sexual identity as a defining feature of personality and examined a theoretical debate about the inherent vs. socially constructed nature of sexual identity. These sections lay an important foundation for the current study for two reasons. First, they illustrate the culturally specific nature of the questions posed by this study: sexual orientation, most notably identity, and attitudes towards sexual minorities are subjects of interest because of a cultural context that identifies sexuality as a defining feature of personhood. Second, the theories below have affected the methodological design of the current study. Feminist approaches to social science call for explicit consideration of the theoretical assumptions underlying research, and feminist and social constructivist critics argue that no science is without bias, that reflecting on the theoretical positions that drive research questions and methodologies allows us to better understand the sources of bias in our own and others' work, and that "what we take to be knowledge is an account of reality produced collaboratively by a community of knowers" (Marecek, Crawford, & Popp, 2004, p. 193; also see Fonow and Cook, 2005; Hallam & Marshall, 1993; Haraway, 1991; Harding, 1986; Heckman, 1997; Plummer, 1995; Stanley, 1997; Unger, 1998).

Social and historical contexts of sexual behavior and identity. Although same-sex sexual behavior has been known to exist across cultural and historical contexts, sexual (i.e., 'homosexual') identity as a central organizing feature of personhood is cited as emerging in Western societies no earlier than the 19th century (see Altman, van Kooten Niekerk & van der Meer, 1989; Foucault, 1978). Before this time, same-sex contact was condemned by various religious authorities but was considered along with adultery, masturbation, and bestiality as one of many forbidden behaviors, not as an indicator of a different category of person. From the late 1800s through the 1960s, Western medical, biological, and psychological perspectives began to view sexual behavior as a defining

characteristic, and the term ‘homosexual’ was ascribed to individuals who engaged in same-sex behavior. Different positions were taken on questions of inherent vs. acquired status of homosexuality, but it was generally agreed that such a ‘condition’ was abnormal and/or pathological. Social constructionists argue that the category ‘heterosexual’ also emerged during this time, but only after homosexuality had already been delineated. In other words, neither ‘heterosexual’ nor ‘homosexual’ was employed to categorize distinct ‘ways of being’ until writers like Ulrichs, Kertbeny, Jäger, Westphal, and Krafft-Ebing introduced and elaborated on the idea of ‘the homosexual’ (Foucault, 1978).

Citing the Western emergence of ‘the homosexual’ as a distinct category of person, many scholars, among them Diamond (2006), Rust (1992), Vance (1989), Foucault (1978), and Weeks (1989), critiqued assumptions that all people across history and culture who have engaged in same-sex behavior share an essential ‘homosexual’ identity. Similarly, recent feminist theories have questioned identity-based epistemologies on the grounds that they erroneously assume essential, unifying commonalities among individuals based on race, gender, sexuality, class, ability, etc. Bridging diverging epistemological positions on the acceptability of social categories such as ‘woman,’ Heckman (1997) proposed that categories are based on ‘ideal types’ that are socially constructed to describe and explain experience (see also Harding, 1986; Haraway, 1991). Heckman did not assume, however, that any individual person fits an ideal, and acknowledges that there is considerable variance among people identified with particular categories. Mohanty (1992) and Scott (1992) were also concerned with the limitations of the construct of identity. For example, they both challenged scholars to look closely at the category of ‘woman’ and to consider how its unexamined use hinders effective feminist political or scholarly goals. They would argue that the many differences among women are washed out, ignored, or (at worst) erased by claims of a global “sisterhood” (Mohanty, 1992, p. 75).

Essentialist and social constructionist theories of sexual identity. Just as feminist scholars have wrestled with the concept of identity, so have researchers debated the nature of sexual identity. An international conference on gay and lesbian studies, titled “Homosexuality, Which Homosexuality?” was held in Amsterdam in 1989 (Altman, van Kooten Niekerk & van der Meer) and provides useful information regarding essentialist

and social constructionist views of sexual identity. Most authors attempted to move beyond the debate by synthesizing essentialist and constructionist conceptualizations. To be fair, the ‘essentialist’ position was actually defined and labeled by social constructionists, and some of those relegated to the essentialist camp by constructionist colleagues protested being defined in this way. After all, they said, was it not in the general practice of ‘good science’ to consider contextual issues such as history and culture when making interpretations about social phenomena? Who would deny the value of such an enterprise? But some social constructionists countered by stating that it was not just context that they wished to consider, but also the ways in which social forces have shaped the very existence of social phenomena – the ways in which aspects of our social reality may be understood as the artifactual results of discourse and power, not some essential, natural, pre-social reality (Kitzinger, 1995).

Carol Vance, in her keynote address at the 1989 conference, called upon scholars to examine the “residual essentialism” within themselves, even if they laid claim to constructionist positions (p. 14). Consistent with notions of internalized homophobia, racism, or sexism, Vance stated that it is impossible to be completely free of essentialism, as it “was our first way of thinking about sexuality and still remains the hegemonic one in our culture” (1989, p. 14). She went on to make effective arguments against three ‘false critiques’ of social constructionism (that it trivializes individuals’ experiences of identity, suggests that individuals can change their identities at will, and negates the possibility of social continuity – that only rupture is possible) (1989, pp. 15-18). She also discussed several theoretical issues pertinent to social constructionism: that the degree of constructionism assumed varies among scholars, that sexuality as a category is unstable (this relates to the definitional problems noted in the preceding section), and that social constructionism sometimes fails to acknowledge the “real, live lesbians and gays” that “need to be defended in an oppressive system,” which can mean employing identity labels and politics even though they may represent theoretically unstable categories (1989, p. 30).

Vance’s address concluded by articulating the ongoing “tension between deconstructing systems of sexual hierarchy” (i.e., applying social constructionism) and “defending lesbians and gays” (i.e., using essentialism as a strategic organizing tool when

political solidarity is most needed) (1989, p. 30). She did not suggest a synthesis of these two theoretical positions, but instead proposed that each could be useful depending on the intended purpose and goals of an action or discourse. Two other conference participants, Jan Schippers and Jeffrey Weeks, took a different approach to bridging the divide between essentialism and constructionism; their work blended aspects of both positions by stating that “lesbian and gay identities are both constructed and essential” (Weeks, 1989, p. 210). Schippers’ (1989) stance was that individuals experience their identities as consistent (i.e., essential), and that constructionism would be useful in challenging the nature of sexual identity categories only if it was employed to deconstruct heterosexuality as well as non-heterosexual identities. Weeks, on the other hand, emphasized the historical construction of identities, but called upon essentialism to explain how categories are “necessary, and in the end inescapable” (1989, p. 210).

I chose to describe several positions expressed at the *Homosexuality, Which Homosexuality* conference in order to illustrate key positions in the essentialism – social constructionism debate in sexual identity scholarship. Another publication relevant to this topic is Kitzinger’s (1995) chapter on social constructionism in gay and lesbian psychological studies. In addition to articulating the positions already noted above, Kitzinger outlined how the essentialist camp became one that no one wished to inhabit, and that in response, nearly everyone claimed to value social constructionism, even though their definitions were quite varied. Soon afterwards, the field was split again, this time into adherents of ‘strong’ vs. ‘weak’ constructionism. ‘Weak’ constructionists, labeled as such by their ‘stronger’ colleagues, paid attention to the role of social context in shaping identity development, while ‘strong’ constructionists viewed identity categories as socially created “linguistic devices for ordering the world” (Kitzinger, 1995, p. 142). Kitzinger commented on Mary McIntosh’s groundbreaking work in 1968 on the (socially determined) homosexual ‘role’ that differed from previous research which had focused on the (essential) homosexual ‘person.’ Most importantly, Kitzinger clearly defined social constructionism’s two main mandates: 1) to question the nature and origin of social categories and 2) to critique the enterprise of empirical (psychological) science. Citing Gergen (1985), she asked her readers to deconstruct science so as to expose its socially-influenced and therefore untenable ‘objectivity.’ Just as feminist scholars like

Heckman (1997) and Haraway (1991) have articulated so well, Kitzinger noted that there can be no truly objective scientific knowledge.

The present study draws from social constructionist theories of identity. However, like Weeks and Schippers, I also acknowledge that individuals can experience their identities as essential or innate. A multidimensional approach to measuring sexual orientation, described below in greater detail, is key to balancing social constructionist theory with appreciation of the ways in which identities are often experienced as essential; respondents might identify with a particular category of sexual orientation, but the survey also inquires about behavior, attraction, and other elements of sexual orientation, with no presumptions about the consistency of individuals' experiences across these different domains.

Knowing that sexual identity as an enduring and essential characteristic is a contestable position should help us to contextualize empirical findings about sexual identity development as well as other aspects of sexual orientation. It might also contribute in important ways to the interpretation of data collected in the present study. Having outlined the definitional and theoretical issues relevant to sexual orientation, I now turn to the other constructs under investigation.

Sex, Gender Identity, and Gender-Role Orientation

Definitions. Before exploring the ways in which gender and sex relate to other constructs, it is important to clarify terminology. The words gender and sex have often been used interchangeably in social science literature (Beutler, et al, 1996; Haig, 2004; Unger, 1998). However, feminist scholars have put forth the following delineation: *sex* refers to the biological and physical manifestations of sex-linked chromosomes, and *gender* refers to psychological and social characteristics associated with, but not necessarily correlating perfectly with, biological sex categories (see Gentile, 1993 and Gilbert, 1992, as cited in Beutler, et al, 1996; Kessler & McKenna, 1978; Unger, 1979; Unger, 1998; Crawford & Unger, 2004). Even with clear definitions, however, it is not always easy in practice to apply them consistently. For example, it is sometimes difficult to determine whether presumed sex-linked characteristics are due to biological influences or are merely associated with biological sex but not fully biologically determined. In

addition, some scholars have regarded even the category of sex as potentially socially influenced (see LaFrance, Paluck, & Brescoll, 2004). Biological sex and its manifestations, then, can be as difficult to assess as gender.

Gender identity may be represented by the labels used to describe gender (e.g., male, female, transgender, genderqueer, butch, femme). Gender-role orientation, a closely related construct, is the degree to which behavioral and psychological characteristics correspond to socially determined norms for masculinity and femininity. These behavioral patterns have also been called ‘sex roles’ (Bem, 1974; Spence & Helmreich, 1979) but more recently the term ‘gender role’ has been introduced in the literature (e.g., Saunders & Kashuback-West, 2006). Because the latter term is more consistent with current definitions of sex and gender, I refer to this construct as ‘gender-role orientation.’

Both sex and gender may be understood as either dichotomous (male/female, masculine/feminine) or continuous variables; I favor continuous conceptualization of both constructs, following Unger (1979) and LaFrance, Paluck, & Brescoll (2004), among others. Gender and sex are both relevant to sexual orientation as characteristics of the object to which a person is oriented. Specifically, sexual identity may draw on both physically (‘sex’) and socially (‘gender’) based self-concepts; in addition, individuals can be behaviorally or psychologically oriented towards others’ biologically based sex traits, socially influenced presentations of gender identity, or both. The present study, because of its greater interest in socially influenced identities and experiences, assesses gender identity and gender-role orientation, but not biological sex.

Relationships among gender identity, gender-role orientation, and other variables of interest. Studies of gender in psychology have often been represented in the literature in dichotomous terms (i.e., similarities or differences between men and women; see Crawford & Unger, 2004, p. 17; LaFrance, Paluck, & Brescoll, 2004; Stewart & McDermott, 2004), and therefore do not always reflect the diversity within categories of gender due to race, ethnicity, sexual identity, or other socially relevant identities. There is also a need for more research on the range of ways in which individuals make sense of their gendered selves. More recently, scholars have explored how and why gender differences have emerged in areas such as depression prevalence (Culbertson, 1997:

Piccinelli & Wilkinson, 2000), cognitive abilities (Crawford & Chaffin, 1997), and social dominance orientation (Guimond, et al, 2006).

Studies of gender-role orientation have also yielded interesting results, including some that have supported theories of this construct being multi-dimensional. For example, Spence and Helmreich (1979) found that masculinity and femininity are independent of one another, such that individuals may be characterized as androgynous (high on both masculinity and femininity) or undifferentiated (low on both) in addition to the traditional conceptualizations of masculine or feminine. Further research by Spence and Helmreich (1980) revealed that their measure of gender-role orientation is limited to the specific gender-linked traits of instrumentality and expressiveness, not a global characterization of masculinity or femininity.

As Spence and Buckner (2000) reported, studies have generally failed to find significant relationships between sexist attitudes and self-reports of expressiveness and instrumentality. Even so, the instrumentality and expressiveness traits measured by Spence and Helmreich's PAQ (1979) have demonstrated relationships with other constructs of interest to the current study, such as psychological well-being in women (Saunders & Kashubeck-West, 2006); and self-reported sexual orientation in both men and women (Finlay & Scheltema, 1991: lesbian women reported higher masculinity scores as compared to a sample of college women, and gay men had lower M scores than college men). However, Finlay and Scheltema (1999) later found that although lesbians appeared to demonstrate greater masculinity than heterosexual college-aged women, this difference disappeared when controlling for a measure of feminist (i.e., confident and independent) attitudes towards women. This further supported thinking of measures of masculinity in terms of instrumentality.

In the present study, personality traits, heteronormativity, attitudes, and psychological well-being were analyzed by gender identity and gender-role orientation as well as sexual orientation in order to determine the extent to which both of these constructs predict various outcomes.

Personality Traits and Cognitive Styles

Right-wing authoritarianism. Authoritarianism as a personality construct was first introduced by Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950; cited in Winter, 1996) in the wake of World War II as social scientists grappled to understand how anti-Semitism and other virulent forms of prejudice led to violent oppression in Nazi Germany. Adorno and colleagues built on their original anti-Semitism work to create a broader measure of “implicit antidemocratic trends” (Winter, 1996, p. 215) called the Fascism or F scale. This scale was said to measure authoritarianism, defined later by Altemeyer (1996) as personality tendencies towards adherence to authority, conformity, and aggression towards non-conformists. Altemeyer (1981, 1988, 1998) created a balanced measure (containing both positively and negatively worded items) of this construct. Altemeyer’s measure correlates highly with the original F scale (Altemeyer, 1988, as cited in Winter, 2006), and he reconceptualized the construct as right-wing authoritarianism (RWA) due to its consistent correlations with measures of political conservatism (Altemeyer, 1996).

In addition to political conservatism, the following constructs have been observed to correlate consistently with RWA: negative attitudes towards and condoning of violence against sexual minorities (Altemeyer, 1996; Whitley & Lee, 2000); sexism (Christopher & Mull, 2006); reported perpetration of sexual assaults (Waker, Rowe, & Quinsey, 1993, as cited in Altemeyer, 1996); anti-environmentalism (Peterson, Doty, & Winter, 1993; Schultz & Stone, 1994, as cited in Altemeyer, 1996); ethnocentrism (Altemeyer, 1996); moral opposition to abortion (Duncan, Peterson, & Winter, 1997; Moghaddam & Vuksanovic, 1990, as cited in Altemeyer, 1996; Peterson, Doty, & Winter, 1993); and anti-feminist tendencies (Duncan, Peterson, & Winter, 1997). In addition, RWA has also been observed to correlate significantly with two other personality variables of interest to the present study: tolerance of ambiguity (e.g., Budner, 1962) and openness to experience (e.g., Akrami & Ekehammar, 2006; Altemeyer, 1996; Duriez & Soenens, 2006).

Tolerance/intolerance of ambiguity. Intolerance of ambiguity has been defined as “the tendency to perceive ambiguous situations as sources of threat” (Budner, 1962, p. 29) and an indication of “the way individuals cope with ambiguous, unfamiliar, or

inconsistent situations” (Kulik, 2006, p. 319). Budner’s conceptualization and measure of this construct remains the most widely used and respected in the field (see Buhr & Dugas, 2006; Furnham, 1994; Grenier, Barrette, & Ladouceur, 2005). There is some disagreement about whether intolerance of ambiguity is content-specific as opposed to consistent across situations (Durrheim & Foster, 1997). However, well-established and often-cited literature (e.g., Budner, 1962; Frenkel-Brunswick, 1951; both cited in Kulik, 2006) generally represents intolerance of ambiguity as a “dominant trait” affecting overall cognitive style, beliefs, attitudes, and well-being (Kulik, 2006, p. 319).

Intolerance of ambiguity has been described as highly correlated with, if not a key component of, RWA (Butler, 2000; Winter, 1996). In addition, Strauss, Connerly, and Ammermann (2003) found that both RWA and intolerance of ambiguity predicted negative attitudes toward diversity. A recent meta-analysis also demonstrated that conservatism correlates positively with intolerance of ambiguity across a range of cultural contexts (Jost, Glaser, Kruglanski, & Sulloway, 2003). Durrheim (1998), however, reported considerable inconsistency in correlations of conservatism and ambiguity intolerance.

This bipolar construct has been traditionally conceptualized as *intolerance* of ambiguity due to its relationship to RWA. However, I am interested in the opposite pole, *tolerance* of ambiguity, as a correlate of sexual orientation fluidity. Therefore, I have referred to this construct as tolerance of ambiguity throughout the remainder of this dissertation.

Openness to experience and other Big-Five traits. Openness to experience, one of five supposedly core, stable, and enduring personality traits known collectively as the Five Factor Model (McCrae & Costa, 2003; McCrae & John, 1992), is the third major personality variable in the current study. The other four traits in this model, all measured on bipolar scales, are agreeableness, conscientiousness, neuroticism, and extroversion. McCrae and Costa have theorized a system of personality that includes changeable characteristics and influences (e.g., external influences, self-concept, biological base, culturally conditioned phenomena, and biographical events) in addition to these more enduring “basic tendencies” (2003, p. 188). McCrae & Costa (1985; 1992) and Goldberg (1992), among others, have developed well-established measures of these five factors.

In this study, I have examined openness to experience, or the degree to which individuals seek out new experiences (Durrheim & Foster, 1997; McCrae & Costa, 1985) due to its well-established relationships with other variables of interest such as self-esteem (Farmer, Jarvis, Berent, & Corbett, 2001; Judge, Thoresen, Pucik & Welbourne, 1999); RWA (Akrami & Ekehammar, 2006; Butler, 2000; Duriez & Soenens, 2006; Trapnell, 1994); conservatism (Riemann, Grubich, Hempel, & Mergel, 1993); and attitudes towards gays and lesbians (Butler, 2000). Openness to experience has also been implicated in the development of social and cultural attitudes and relationships (e.g., those higher in openness are more likely to score higher on behavioral and attitudinal measures of gender equality and sex roles; see McCrae, 1996). Building on the research described above, I hypothesized that sexual minorities would evidence lower RWA and higher openness to experience and tolerance of ambiguity than heterosexuals. I also predicted differences by sexual orientation in relationships among personality variables, heteronormativity, and psychological well-being, as noted below.

Political Ideology

Definitions and measurement. Political ideology, or the degree to which one's political attitudes are generally more liberal or more conservative, is often measured on a continuum. Recent studies have generally employed bipolar, unidimensional scales which ask participants to label themselves on a scale from liberal to conservative (Knight, 1999). Scales may also use opposing terms such as radical and conservative (e.g., Cole, Zucker, & Ostrove, 1998; Stewart, Settles, & Winter, 1998) or left-wing and right-wing (e.g., Gaffié, 2006, Morrison & Morrison, 2002). These scale ratings demonstrate consistent correlations with various political behaviors, such as voting (Knight, 1999). However, Knight (1999) also noted that social and economic political attitudes are not always congruent with one another, and that it is therefore useful to gather information separately about these distinct political attitudes. Rogers and Lott's (1997) work implies that this distinction may be especially important for groups such as Log Cabin Republicans, who tend to favor more liberal social policies and more conservative economic policies.

There is considerable evidence for a strong relationship between right-wing authoritarianism and conservative political ideology (Altemeyer, 1981, 1988, 1996). Because of this, we might expect gender-role conformity to be stronger among more socially conservatively-minded individuals, such that women high on social conservatism would score higher on measures of femininity and lower on measures of masculinity, and men high on conservatism would score higher on masculinity and lower on femininity. Additionally, I predicted that heteronormativity would correlate positively with social conservatism, and that tolerance of ambiguity and openness to experience would correlate negatively with social conservatism.

Social Desirability

Social desirability, or the tendency to respond to survey items in a way that enhances others' impressions of the respondent, has long been a concern among psychological researchers (e.g., Bernreuter, 1933; Meehl & Hathaway, 1946; Edwards, 1953; Lenski & Leggett, 1960; Good & Hart, 1952; all cited in Paulhus, 1991). Common efforts to remedy this problem have included crafting survey items that are less likely to elicit socially desirable responses; controlling the experimental environment to reduce the likelihood of socially desirable responding; and measuring covariance of independent or dependent variables with measures of social desirability, and recalculating responses and scale totals to 'correct' for this bias (Paulhus, 1991).

The purpose of including social desirability in the present study is to assess whether those who score high on social desirability differ systematically with respect to their responses to items related to potentially sensitive topics, such as sexual orientation, political ideology, psychological well-being, gender roles, and attitudes towards sexual minorities. Additionally, I anticipated that heteronormativity would correlate positively with social desirability, because high scorers on both items would share a tendency to conform to perceived social norms.

Psychological Well-Being and Sexual Orientation

The literature on psychological well-being according to sexual orientation status is mixed, although there is considerable evidence that sexual minorities are at greater risk

for negative mental health outcomes due to increased stressors associated with stigma and discrimination (Meyer, 2003; Warner, et al, 2004). As early as 1957, Hooker (as cited in Sell & Silenzio, 2006) found no differences in projective test responses or adjustment outcomes in heterosexual and homosexual men. Kerr and Emerson (2003) reviewed more recent literature on mental health outcomes among sexual minorities, particularly among women. They noted that although few studies have compared mental health outcomes in sexual minority and heterosexual samples, those that have generally report similar rates of depression (Bradford, Ryan, & Rothblum, 1994; Cochran, Sullivan, & Mays, 2003; Tuel & Russel, 1998; all cited in Kerr & Emerson, 2003). Kerr and Emerson (2003) also reported on rates of anxiety and stress, citing the variability in outcome studies; some have indicated no or few significant differences by sexual minority status (Bernhard & Applegate, 1999; Tait, 1997), whereas others reported greater anxiety (Jordan & Deluty, 1998) among lesbian and bisexual women as compared to heterosexual women. In addition Cochran, Sullivan, & Mays (2003) reported higher rates of depression and panic attacks among gay men as compared to heterosexual men and a greater incidence of generalized anxiety disorder among lesbians as compared to heterosexual women. The literature on suicide also indicates greater risk among both male (Paul, et al, 2002) and female sexual minorities (Bradford, Ryan, & Rothblum, 1994) than heterosexuals, particularly during adolescence (Paul, et al, 2002). Overall, however, the literature presents mixed results, making it difficult to draw sweeping conclusions about the relative prevalence of mental illness and distress among sexual minority and non-sexual minority populations. Despite widespread prejudice and oppression negatively affecting sexual minorities' lives, there does not appear to be a clear path from sexual minority status to negative mental health outcomes.

When reported in the literature, negative mental health outcomes among sexual minorities have often been at least partially explained by the heterosexist discrimination faced by sexual minorities, not by sexual minority status alone (see Kerr & Emerson, 2003; Luhtanen, 2003). These results suggest links between heterosexism and possibly also the heteronormative social forces present in the everyday lives of sexual minorities and mental health, or psychological well-being. However, not all sexual minorities experiencing these negative social pressures feel depressed or unsatisfied with their lives.

In fact, there is evidence that sexual minorities who develop positive self-concepts (e.g., Luhtanen, 2003; Miranda & Storms, 1989) or report adequate social support (e.g., Goldfried & Goldfried, 2001; Oetjen & Rothblum, 2000; Zea, Reisen, & Poppen, 1999) demonstrate positive psychological adjustment. What is clearly needed, then, is a better understanding of the conditions under which sexual minorities demonstrate these varying rates of psychological well-being.

The present study has operationalized psychological well-being as the combined presence of low depressive symptom scores and high scores on a life satisfaction measures, following Luhtanen (2003) and Settles (2004). This approach accounts for both positive and negative well-being. Because I anticipated that heteronormative and authoritarian attitudes would co-occur with negative self-perceptions in sexual minorities (i.e., they would have negative attitudes towards their own transgressions of conventional sexual roles and/or behaviors), I therefore predicted that heteronormativity and right-wing authoritarianism would correlate positively with depressive symptoms and negatively with life satisfaction in sexual minorities. As compared to sexual minorities, I further predicted that these relationships would be significantly weaker for heterosexuals.

Summary of Research Questions and Hypotheses

The current study is concerned with three main research questions. First, how do sexual orientation and gender relate to personality constructs such as right-wing authoritarianism (RWA), tolerance of ambiguity, openness to experience, and heteronormative attitudes and beliefs? Second, how do tolerance of ambiguity, openness to experience, and RWA relate to heteronormativity in heterosexuals? Third, is heteronormativity implicated in mental health outcomes for sexual minorities? The following relevant hypotheses were examined:

- Hypothesis 1. Women will exhibit greater sexual fluidity than men; this will hold across sexual orientation.
- Hypothesis 2. Sexual minorities will report lower heteronormativity and RWA than heterosexuals.
- Hypothesis 3. Sexual minorities will report greater tolerance of ambiguity and openness to experience than heterosexuals.

- Hypothesis 4. Heteronormativity will correlate negatively with sexual orientation fluidity, tolerance of ambiguity, and openness to experience.
- Hypothesis 5. Heterosexuals who have higher levels of contact with sexual minorities will report lower heteronormativity and RWA and higher tolerance of ambiguity and openness to experience than heterosexuals who have lower levels of contact with sexual minorities.
- Hypothesis 6. For heterosexuals, gender and contact with sexual minorities will uniquely predict variance in heteronormativity.
- Hypothesis 7. Significantly larger correlation coefficients will be observed among sexual minorities as compared to heterosexuals with respect to the relationships between psychological well-being and heteronormativity, tolerance of ambiguity, and openness to experience.
- Hypothesis 8. For sexual minorities, identity disclosure, tolerance of ambiguity, openness to experience, RWA, and heteronormativity will uniquely predict variance in positive well-being.

CHAPTER II

METHODS

This study used an Internet-based survey to investigate relationships among personality variables, sexual orientation, and mental health outcomes for heterosexual and sexual minority adults from a range of communities in Michigan. Because research with sexual minorities and Internet-based data collection involve special methodological considerations, I will outline key issues relevant to these domains before turning to a description of the specific research design employed in this study.

Methodological Considerations for Research that Includes Sexual Orientation

Studying sexual orientation is not a simple matter. The historical stigma attached to this construct as well as its complex, arguably multidimensional composition lead to numerous methodological considerations and dilemmas for researchers. Examples of methodological concerns represented in the current literature include: the ways in which constructs should be measured or assessed; sampling techniques; the role of reflexivity in research design, implementation, and analysis; and the potentially negative political implications of pursuing research about topics such as sexual fluidity. I review these concerns below and have attempted to integrate many of the recommendations in the present study's methodology.

Measurement techniques. One methodological concern, as noted above in the section on sexual orientation, concerns measurement, or how researchers assess identity group membership and sexual experiences. Consistent with critiques against simplistic and fixed categorical definitions of sexual orientation, recent recommendations in the psychological literature support the use of multidimensional measures (Amestoy, 2001; Omoto & Kurtzman, 2006). In addition to assessing multiple facets of sexual orientation,

it is important to consider how the wording of questions or items can affect participants' responses, especially on sensitive subjects such as sexual behavior and identity (Catania, et al, 1996). Also, valuable information is gained by allowing respondents to explain, qualify, or elaborate on the terms they use to describe their sexual orientations. This is illustrated in a quotation from a "self-identified lesbian female" from Sterk and Elifson's study (2006, p. 276):

I see lesbians as a white dyke who has what she needs... like, a house, a car. Lesbians are proud of the way in which they stick with each other... Black women have been doing that forever... (it's about) sex – nothing else, no politics or all that nonsense. I don't want to be confused with that type of lesbian. That's why I always say that I have sex with women. I am into women.

Information such as this could not easily be gathered by closed-ended questions. In fact, it is possible that this woman would not have self-identified as a sexual minority on a survey that did not allow her to qualify her response.

Sampling techniques. A second methodological consideration is the selection of target populations and recruitment of participants. Quantitative studies generally rely on statistical analyses in order to generalize findings to larger populations. When studying marginalized or stigmatized identity groups, however, it can be difficult to find enough people to construct a randomly selected, representative subset of the target population. Targeted sampling, or seeking participants with specific backgrounds and perspectives, is a common practice in qualitative studies (Watters & Biernacki, 1989, cited in Sterk & Eifson, 2006), and can also be useful in quantitative studies with marginalized groups. This is an especially effective approach for working with less-studied and marginalized populations that are difficult to locate (e.g., Sterk & Elifson, 2006).

Although times have changed and sexual minority identities are less stigmatized than they were in the 1950s and 60s, sampling dilemmas remain for quantitative researchers who wish to reach representative samples of sexual minorities (Meezan & Martin, 2003; Sullivan & Losberg, 2003). Hughes, Wilsnack, and Johnson (2006) noted problems with the sampling biases inherent in various settings: participants recruited in specific bars tend to be similar with respect to race, class, and substance use, and members of sexual minority-focused organizations are also generally homogeneous with respect to race and class. Any results of studies from such venues could only be

generalized to very similar settings, and those who do not frequent such establishments or organizations would be left out of the literature on sexual minority experiences.

Additionally, certain definitions of sexual orientation, particularly identity groups, can lead to the exclusion of many potential respondents; someone who identifies as ‘queer’ or ‘mostly heterosexual’ might not respond to an advertisement for a study on lesbians, gays, and bisexuals. In response to quandaries such as this one, Vance (1989) and Diamond (2006) both have suggested using terms such as ‘same sex’ sexuality in recruitment materials as opposed to ‘homosexual’ or even ‘sexual orientation’ in order to be more inclusive of individuals that do not consider themselves to be gay or lesbian.

Basing recruitment efforts on specific locations that are relevant to gay, lesbian, and bisexually-identified patrons is known as ‘convenience sampling,’ whereas participants selected randomly via methods such as random telephone dialing are characterized as ‘probability samples’ (Sandfort, Bos, & Vet, 2006). One benefit to the latter technique is that sexual minorities with fewer LGBT-specific social interactions may be included in the study. Recently, Web-based surveys have enabled researchers to reach fairly diverse populations with minimal recruitment effort. This approach, while not random, tends to yield respondents with more varied characteristics than would be accessible to researchers conducting studies at bars or sexual minority organizations (Mathy, Schillace, Coleman, & Berquist, 2002). Another approach to maximizing diversity within a sample is using multiple recruitment sources. Soliciting participants from a combination of different sources, such as organizations, the Internet, and public events would likely yield a more diverse sample than relying on any one of these sources alone.

Reflexivity. Yet another methodological question relates to the use of reflexivity, or consideration of the researcher’s impact on the research process (e.g., data collection, interpretation of results). Some would contend that reflexivity is unnecessary and distracting from the goal of objectively examining and describing reality. Instead, I agree with feminist scholars such as Fonow and Cook (1991) Haraway (1991), Harding (1986), Heckman (1997), Hallam and Marshall (1993), and Plummer (1995) that complete knowledge and perfect objectivity are unattainable, and that it is therefore useful to consider what biases we bring to research.

One way to employ reflexivity is to explicitly state theoretical positions when writing research proposals and reports. It might also mean that researchers engage in auto-ethnographic inquiry, examining how personal experiences affect the way in which their research is conducted from initial concepts through writing up the final product; however, such reflections should be in the service of understanding blind spots and need not be fully disclosed in work written for academic audiences. In terms of representing information gained through reflexive processes, one must consider the audience and intended goals, and balance sharing his/her own reflections with representing the subject of study.

Another way to apply reflexivity to the research process is to consider how respondents' perceptions of the researcher or the subject matter might affect their participation. Thus in this study I wondered whether potential participants would be reluctant to respond to items asking about sexual orientation, or whether any assumptions about my own sexual identity would affect their responses to survey items. Preliminary analyses of qualitative comments from the end of the survey lend support to these concerns. Following are examples of such comments:

The premises of many questions seemed quite odd and I was at a loss to answer truthfully. I don't see what good can come of surveys like this one.

The demographic questions are sufficiently detailed that I feel uncomfortable with the assurance of anonymity.

I don't care who you are, what you do, or who you do it with. I don't want to see your relationships flaunted in the streets; keep your relations private and at home (or other suitable venue) where they belong.

Given these concerns, I have considered the potential implications of such reactions in the interpretation and discussion of the results reported below.

Considering implications. A fourth methodological consideration is whether, and to what extent, implications of research should be considered in the construction of research projects and dissemination of results. With respect to my own work, I am curious about the possible ramifications of examining sexual orientation fluidity. Writing about shifts in behavior, attractions, or identity might lead more conservatively-minded policy makers to push for increased prohibitions against same-sex behavior on the grounds that it is 'correctable.' In fact, much work in establishing gay and lesbian civil

rights has been built on the argument that sexual orientation is a natural, inherent, and enduring part of one's self, and recent studies provide evidence to support this political strategy (Ernulf, Innala, & Whitam, 1989; Jayaratne, et al, 2006; Whitley, 1990). However, Hegarty's (2002) study suggests that the links between heterosexism and beliefs about essential/immutable sexual orientation may not be as clear as was previously thought. Whether beliefs about immutability lead to more tolerant views towards sexual minorities, it would behoove us to follow the recommendation of scholars who have proposed that the study of sexual identity should problematize heterosexuality as much as it investigates all other categories (Brown, 1995; Frankel, 2004; Hyde & Jaffee, 2000; Omoto & Kurtzman, 2006).

Methodological Considerations for Research using Internet Surveys

The Internet offers possibilities for exploring a wide range of topics, including stigmatized and controversial topics, and for reaching large and diverse samples at a minimal cost and in a relatively short amount of time. However, this venue is not without potential drawbacks (e.g., Couper, 2000; Stanton, 1998). Therefore, I have reviewed the literature on Internet-based methodology below, and I have considered the potential challenges and benefits of Internet-based survey methods in my research design.

Concerns raised in the literature relating to Web-based research include sampling error, reliability of responses, and motivation of participants. For example, Internet samples are drawn from populations with access to the Internet, thus systematically limiting a segment of the population (most likely from lower income brackets) from sample selection (Couper, 2000; Stanton, 1998). In addition, if recruitment efforts are conducted via an open invitation posted on a particular Web site, it is difficult to determine response rates. A related concern is that nonresponse rates appear to be higher for Internet surveys than for comparable paper-and-pencil surveys sent through the mail (Couper, 2000). Also, concerns about the security of the Internet might limit participation in surveys on sensitive topics such as sexuality. Further, measurement error in Internet surveys may occur due to problems with Web design or the recruitment of participants from panels of people who regularly complete online surveys and may respond differently than those who have less survey experience.

As noted above, there are several important concerns associated with Web-based survey administration. As Couper (2000) states, however, these potential problems need not eliminate Internet surveys as an option; rather, researchers should take particular care to anticipate and address potential issues in the research design and implementation. Below are several examples of successful efforts in Internet-based survey methodology.

Numerous researchers have reported success in Web-based survey research. Stanton (1998), for example, found fewer missing values and similar relationships among variables when comparing results from Web-based and paper-and-pencil surveys on relationships with work supervisors. Also relevant to Internet-based surveys, Finegan and Allen's (1994) research yielded equivalent response patterns for computer administered vs. paper-and-pencil administered surveys. Further, Richman, Kiesler, Weisband, and Drasgow (1999) analyzed 61 Internet-based studies and found that when participants felt confident about anonymity and could go back to change answers if they chose, there were no significant differences in responses to social desirability items. Consistent with Richman and colleagues' meta-analytic study, Hancock and Flowers (2001) reported no differences in social desirability when the same survey was administered using the Internet and traditional paper-and-pencil methods. Also investigating social desirability, Booth-Kewley, Larson, and Miyoshi (2007) reported equivalent impression management scores, higher self-deceptive enhancement scores, and greater disclosure of sensitive information about alcohol use and sexual behavior in computer-administered as opposed to paper-and-pencil surveys.

The current study included an Internet-based survey in order to facilitate more efficient data collection. However, due to concerns noted above, I also recruited participants using more traditional methods (through targeted organizations in addition to Internet-based advertisements), and I offered an alternative paper-and-pencil version of the survey to anyone who might have preferred this option¹. In sum, my approach was to use diverse sampling and recruitment methods, thus maximizing the benefits of Internet-based data collection while hopefully minimizing sampling biases that result from reliance on single sources and methods. In the following sections, I describe the current study's methodological design in greater detail.

¹All participants elected to complete the survey online; none chose the paper-and-pencil alternative.

Target Population

The target population included heterosexual and sexual minority adults over the age of 30, with a particular focus on the metropolitan areas of Detroit, Lansing, and Grand Rapids, Michigan. I had originally proposed to include only adults over the age of 30, as they are more likely to have an established range of personality characteristics (McCrae & Costa, 2003). This is because sexual orientation fluidity, one of the key variables in this study, could easily be conflated with the experimentation and exploration associated with identity development in adolescence and early adulthood. However, various scholars report sexual identity ‘milestone’ achievement at ages well below 30 (Diamond, 1998; Schrimshaw, et al, 2006; Savin-Williams & Diamond, 2000). In addition, Schrimshaw and colleagues’ (2006) recent work on sexual identity development followed participants into their 20s based on Jessor, Donovan, and Costa’s (1991) assertion that adolescence in the U.S. spans from the teenage years to approximately age 25. A logical extension of this recommendation is that studies seeking to investigate post-adolescent sexual orientation should focus on people older than 25.

My sampling yielded participants ranging in age from 22-82. Due to concerns that the youngest participants might differ from those older than 25 in personality and sexuality variables, I conducted all major analyses both with and without individuals younger than 25. Because the results were equivalent, I reported the results from full-sample analyses below.

Demographic variables salient to the hypotheses in this study include gender, sexual orientation, race/ethnicity, political ideology, and age. Therefore, these variables were targeted in sampling procedures, with the aim of recruiting people from a range of different ages and roughly equal numbers of males and females, sexual minorities and heterosexuals, and people identifying as politically conservative and liberal. As indicated in Tables 1-2, an acceptable variance on these sample characteristics was achieved. However, there were not enough racial or ethnic minority participants to warrant either group comparisons or separate analyses of non-majority racial and ethnic groups. All major analyses were run both with and without racial and ethnic minorities. Because the results were equivalent, I reported only the full-sample analyses (including racial and

Table 1

Sample Characteristics: Gender, Sexual Identity, and Race/Ethnicity

Variable	<i>N</i>	%	Range	<i>M</i>	<i>SD</i>
Age	484	–	22 – 82	44.7	12.8
Gender					
Women	277	55.4			
Men	219	43.6			
Transgender/other	4	1.0			
Total indicating gender	500				
Gender unspecified	76				
Current Sexual identity					
Exclusively lesbian or gay (women)	52	10.5			
Exclusively gay (men)	72	14.6			
Bisexual or between LG/ het. (women)	29	5.9			
Bisexual or between LG/ het. (men)	30	6.1			
Bisexual or between LG/ het. (trans)	4	.8			
Exclusively heterosexual (women)	192	38.9			
Exclusively heterosexual (men)	114	23.1			
Total indicating sexual identity	493				
Sexual identity unspecified	83				
Race/ethnicity					
Racial/ethnic minority	36	7.5			
European-American/White	444	92.5			
Total indicating race/ethnicity	480				
Race/ethnicity unspecified	96				

Note. Percentages are based on overall totals for each variable.

Table 2

Sample Characteristics: Political Orientation

Variable	<i>N</i>	%
Social political orientation		
Liberal ^a	417	82.2
Conservative ^b	90	17.8
Total	507	
Missing	69	
Economic political orientation		
Liberal ^a	335	66.2
Conservative ^b	171	33.8
Total	506	
Missing	70	

^aIncludes the following: extremely liberal, liberal, and slightly liberal. ^bIncludes the following responses: extremely conservative, conservative, and slightly conservative. One participant who did not choose either “liberal” or “conservative” after a prompt was coded as blank on the social political orientation variable.

ethnic minorities) below.

Measures

The full survey is presented in Appendix A, and reliabilities for each scale by gender and sexual identity subgroups are reported in Appendix Table D1. Unless otherwise stated, composite scores as described below were computed for all cases except those missing responses for 1/3 or more of the items contributing to a given scale.

Demographic information was collected using a series of open-ended, multiple choice and Likert-type scale items. Participants reported birth year, race or ethnicity, gender, religion, and zip code by answering open-ended questions. Race/ethnicity was also measured using a multiple choice item. Income level and previous and current financial situation were measured by Likert-type items. Relationship status, level of education, student status, employment status, and type of community were assessed using multiple choice items. Finally, participants described others who lived in their homes, specifying age and relationship to the participant.

Responses to several demographic questions were recoded in preparation for analyses. For example, regardless of the date on which the survey was completed, I calculated age by subtracting birth year from 2007. In addition, I constructed a composite SES score to reflect different components of social class by taking the mean of standardized scores for level of education and current financial situation rating². Because very few participants reported that they were separated, divorced, or widowed, I included them in the ‘single’ category of relationship status, whereas partnered participants (married or in a committed relationship) made up the other relationship status category. I also recoded open-ended responses about race/ethnicity, current religion, and religious background to create categories suitable for statistical analysis. There were seven cases in which the open-ended and self-categorization responses conflicted; in these cases, I used the latter to determine whether individuals should be identified as racial or ethnic

² Because current financial situation might be a misleading indicator of SES for graduate and professional students, I have analyzed all data both with and without students to check for substantial differences in results. No such differences were observed.

minorities³. For analyses based on current religion and religious background, I created six groups to summarize participants' religious affiliations. Appendix Tables D2 and D3 include a comprehensive list of racial/ethnic and religious categories represented in the sample.

Another recoded demographic variable concerned cohort membership. After consulting with an historian (T. Stewart-Winter, personal communication, April 1, 2008), I selected four critical historical events relevant to the experiences of sexual minorities in the United States: (1) protests in response to a police raid in 1969 on the Stonewall Bar in New York City, (2) the removal of homosexuality from the American Psychiatric Association's Diagnostic and Statistical Manual in 1973, (3) the advent of the AIDS crisis as a major focus of public attention, as marked by Rock Hudson's death in 1985, and (4) a series of activist and civil rights gains for the LGBT communities following the peak of the AIDS crisis in 1995. I defined the years leading up to the Stonewall protests as an earlier event period, labeled "Pre-Stonewall": these years were characterized in part by the publication of Kinsey's (1948, 1953) studies on sexuality as well as increased coverage of homosexuality in the mainstream media. I determined cohort membership according to whichever event occurred first during the coming-of-age years (18-25)⁴. I also determined a "coming-out-to-self" cohort based on whichever event most closely preceded the year a participant had first thought of him or herself as having a sexual orientation, and a "coming-out-to-others" cohort based on the the event most closely preceding the year a participant first told another person about his or her sexual orientation.

Gender was assessed using: (1) self-defined gender labels (in response to the open-ended demographic item) and (2) ratings of stereotypically gender-linked traits as measured by the Personality Attributes Questionnaire (PAQ short form; Spence &

³ For example, participants who self-categorized themselves as White/Caucasian but in response to the open-ended question listed a Native American tribe in addition to European ethnic ancestry were categorized as White/European-American.

⁴ Stewart and Healy (1989) have explained that the age at which a person experiences particular social/historical events plays a critical role in determining the personal salience of the event. Specifically, important historical events that occur during young adulthood are likely to affect how individuals respond to and understand social and historical events throughout the rest of their lives. More recently, Stewart (personal communication, April 8, 2008) indicated that the years between ages 18-25 best represented these "coming of age" years.

Helmreich, 1978). In a small number of cases, participants did not respond to the open-ended gender item but did provide enough information in response to other questions so that I could extrapolate their gender. For example, a participant who reported consistent sexual relationships and behaviors with men from age 18 to the present and identified as exclusively gay/lesbian was coded as a man for the purposes of these analyses.

The PAQ is comprised of three scales, each consisting of eight items. The Masculinity (M) scale measures traits considered to be socially desirable for both men and women but believed to be possessed more often by men than women (e.g., “instrumental, agentic characteristics”), whereas the Femininity (F) scale measures socially desirable traits believed to be more common among women than men (“expressive, communal characteristics”; Spence & Helmreich, 1978, p. 19). A third scale, Masculinity-Femininity (M-F) includes traits considered to be desirable in opposite directions among men and women (e.g., submissive vs. dominant). One benefit to using this instrument is its orthogonal assessment of masculinity and femininity; its M and F scales do not assume that masculinity and femininity are polar opposites. I chose to analyze only data from these continuous M and F scales in this study. In a previous study, the PAQ short form yielded Cronbach’s alphas of .85, .82, and .72 among a sample of students (Spence & Helmreich, 1978), and the current study’s alphas were .75 (F scale) and .73 (M scale). PAQ items were presented on a continuum; respondents chose a letter to signify where they identified themselves on a scale between two extremes, ranging, for example, from very aggressive to not at all aggressive or from very emotional to not at all emotional. Possible item scores range from 0 to 4, with extreme masculine responses scored as 4 on the M scale, and extreme feminine responses scored as 4 on the F scale. A mean score was calculated for each subscale.

Sexual orientation was measured in the domains of identity, attraction, fantasy, behavior, fluidity, and identity disclosure. Assessment of the first five domains was theoretically and methodologically based on the work of Kinsey, et al (1948) and Klein, Sepekoff, and Wolf (1985). Kinsey’s well-established seven-point scale measures the potential range of sexual experiences that lie between exclusively heterosexual and exclusively homosexual, and the Klein Sexual Orientation Grid (KSOG) assesses seven domains (sexual attraction, sexual behavior, sexual fantasies, emotional preference, social

preference, self-identification, and lifestyle/community involvement) across three time frames (present, past, and ideal future). The present study employed seven-point scales similar to those used by Kinsey, et al (1948) and Klein, Sepekoff, & Wolf (1985) to measure five components of the KSOG (identity, attraction, fantasy, behavior, and fluidity) across two time frames (present and past). As indicated in Table D31, the correlations among identity, attraction, fantasy, and behavior variables were much stronger than correlations between the fluidity and disclosure items, both with each other and with all of the other variables measuring sexual orientation. Therefore, I report here the alpha for only the eight items measuring past and present attraction, behavior, fantasies, and identity ($\alpha = .99$).

The high degree of reliability among the sexual orientation items in this study supports a unidimensional conceptualization of sexual orientation. Thus, these results contradict the current literature's prevalent theories about sexual orientation as a multidimensional construct. It is also worth noting here that the high degree of reliability among sexual orientation items might be due in part to participants' recollection of all aspects of sexual orientation being consistent, whether or not they had experienced contradictions between their identities, fantasies, attractions, or behavior. Alternatively, participants might have invested effort in reporting consistently with respect to their sexual identity labels and gendered objects of sexual fantasy, attraction, and behavior.

In developing language for questions about sexual orientation, I followed recommendations made by the American Psychological Association's Committee on Gay and Lesbian Concerns (1991) to use "men" and "women" instead of "same sex" and "opposite sex," and to avoid outdated words such as "homosexual" whenever possible. Questions about current experiences referred to the past year, and those about past experiences referred to the time from age 18 to one year ago.

The past and current *identity* items (e.g., "How would you rate your sexual orientation or identity DURING THE PAST YEAR on the following scale?") asked respondents to choose one of seven possible responses ranging from completely gay or lesbian to completely heterosexual. In order to conduct analyses within and between sexual identity groups, I created two different composite sexual identity variables: one comprised of two categories (sexual minority and exclusively heterosexual) and one

consisting of three categories (exclusively heterosexual, bisexual or between lesbian/gay and heterosexual, and exclusively lesbian/gay). Because of the smaller size of the bisexual/between group, most categorical analyses reported below are based on the binary sexual minority vs. heterosexual variable.

Attraction, fantasy, and behavior items were presented similarly (e.g., “How would you rate your sexual attractions FROM AGE 18 TO 1 YEAR AGO on the following scale?”), with possible responses ranging from exclusively (attracted to/fantasize about/sexually active with) women to exclusively (attracted to/fantasize about/sexually active with) men. Responses were recoded for same-sex or opposite-sex orientations based on the participant’s reported gender.

In addition to items based on the KSOG, the following were included: two open-ended sexual identity items, a relationship checklist, a question about sexual fluidity, seven items about identity disclosure, and an item asking participants to report the age at which they first thought of themselves as having a sexual orientation. The open-ended sexual identity items asked participants to identify the label(s) that best represented how they defined their “sexual orientation or identity” (these words are often used interchangeably in popular culture). The open-ended items were presented before other sexual orientation items so that participants could indicate identity labels without being influenced by the questions about attraction, behavior, etc. that followed. The relationship checklist, adapted from Morris, Waldo, and Rothblum (2001), asked respondents to report their current and past relationship status (e.g., in a primary relationship with a woman, dating women casually, dating both men and women), with directions to check all that apply. This checklist was used along with the KSOG scale item about *sexual behavior* to assess the behavioral component of sexual orientation. Items were recoded to produce two binary variables: current same-sex relationship (Y/N) and ever had a same sex relationship (Y/N).

Sexual fluidity was determined in two ways. First, participants completed the sentence, “Throughout my life, my sexual orientation has...” using a 6-point scale (from “always been the same” to “very often changed”). Second, I noted any discrepancies between ‘current’ and ‘past’ responses on questions about identity, attraction, fantasies, and behavior. The second method yielded a count of the number of dimensions in which

participants' orientations had changed over time. Due to substantial missing data from the 'current' and 'past' sexual orientation items, I used the single-item measure of fluidity in the analyses described below. As shown in Table D4, correlations between this single item and the other items inquiring about sexual fluidity was significant in all cases except for changes in sexual behavior from past to present. The correlation between the single-item response and the number of domains in which participants' orientations had changed was quite strong (.71, $p < .001$), thus validating the use of the single item in analyses that included sexual fluidity.

Identity disclosure was assessed using a six-item measure adapted from Morris, Waldo, and Rothblum (2001; Morris, Waldo, and Rothblum adapted three of these items from Bradford, Ryan, and Rothblum (1994)). Items in this measure asked participants to rate on a five-point scale how many of their straight/heterosexual family members, friends, and coworkers knew their sexual orientation; how important it was that their sexual orientation was known to heterosexuals in their lives; how much they worried about others thinking they were lesbian, gay, bisexual, or transgender; and how much they worried about others thinking they were heterosexual. Morris, Waldo, and Rothblum reported that the alpha of the first five items taken together was .70, and the alpha in the current study for all six items was .64. The alpha for the three specific disclosure items (how many family members/ friends/ coworkers know your sexual orientation) was substantially higher ($\alpha = .85$), so I used these items to create a mean overall disclosure score. Factor analysis of all six items confirmed that the three items contributing to the disclosure score cohered as a single factor, with an Eigenvalue of 2.40 and factor loadings of .92 (disclosure to friends) and .88 (disclosure to family, disclosure to coworkers).

In addition to the six-item measure described above, identity disclosure was also assessed by asking participants to report the age at which they first told another person about their sexual orientation. Some participants simply reported an age in response to this question, but others provided further explanation of their experiences. Qualitative responses from sexual minority participants indicate a largely uniform interpretation of this question; participants described specific conversations and moments in which they first disclosed their sexual orientation to another person. However, heterosexual

participants appeared to have varied in their interpretations of this question. For example, some participants wrote that this question was not applicable to them as heterosexuals, some indicated that they assumed others in their lives knew and therefore had never officially disclosed their sexual orientation, and others described an event such as their first kiss as the moment at which they first disclosed their sexual orientation to another person. On the other hand, many heterosexual respondents reported a specific age with no qualifying or supplemental information; thus, it is difficult to know how these participants interpreted the question and whether the age they indicated actually corresponded to an explicit disclosure of their sexual orientation to another person.

Contact with sexual minorities was assessed by asking participants to report how old they were when they first recognized that they knew a gay, lesbian, bisexual, or transgender person. Next, participants indicated how many of their friends or acquaintances from the past two years were heterosexual (women and men), lesbian, gay, bisexual (women and men), or transgendered. This approach is similar to Simon's (1995) investigation of interactions with and exposure to sexual minorities, with the only difference being the presentation of a range of possible responses (none, 1-2, 3-5, 6-10, more than 10) in the current study. Two distinct factors emerged from these items (sexual minority friends and acquaintances, $\alpha = .85$, and heterosexual friends and acquaintances, $\alpha = .90$). Due to the high internal reliability of the sexual minority contact factor, I used the mean of the two items with the least missing data (number of gay male friends, and number of lesbian friends) when evaluating hypotheses related to contact with sexual minorities. Correlations between this mean score and all other sexual minority contact items ranged from .42-.67. Further, the mean of lesbian and gay friends is uncorrelated with the number of heterosexual friends or acquaintances reported, thus eliminating concerns about sexual minority contacts being confounded with overall social contacts.

Beliefs about bisexuality and sexual fluidity were measured by seven items constructed for this study. One item presented a series of statements about bisexuality (e.g., "bisexuality is definitely not a real or valid way of defining one's sexuality;" "bisexuality is probably a real and valid way of defining one's sexuality;" "I'm not sure") and asked participants to check the statement with which they most agreed. The

remaining six items were statements about sexual fluidity, with seven-point response scales ranging from strongly agree to strongly disagree. Sample items include: “a person’s sexual orientation can change over time;” “a person’s sexual behavior can change, but sexual orientation always stays the same;” and “a person who was previously sexually active only with opposite-sex partners might at a later point in life become sexually active with someone of the same sex.” A total mean score was constructed for this six-item measure of beliefs about sexual fluidity ($\alpha = .81$).

The Heteronormativity Attitudes and Beliefs Scale (HABS) was developed in a pilot study with undergraduate psychology students. This measure was developed from a set of 38 items that were selected, adapted, or designed to load on two hypothesized factors: (1) essentialized and binary beliefs about gender and sex and (2) normative behavioral expectations for men and women in romantic or sexual relationships. Several items pertaining to binary and essentialized beliefs about gender and sex were adapted from Tee and Hegarty (2006). A Varimax rotated factor analysis of the 38 items in Appendix Table D5 revealed two factors with Eigenvalues of 9.4 and 5.9, respectively accounting for 25% and 15% of the variance. All items with factor loadings of at least .5 (absolute value) were considered for inclusion in the final scale; the items with the highest loadings on one factor and relatively lowest loadings on the other factor were retained in the remaining pilot study analyses. This resulted in a 16-item measure of heteronormativity, comprised of two scales with 8 items each, with balanced negative/positive wording. The scales developed from this pilot study, labeled *gender-as-binary* ($\alpha = .92$) and *normative-sexual-behavior* ($\alpha = .78$), reflected the two predicted components of heteronormativity. Internal reliability in the current study was similarly high ($\alpha = .85$, gender-as-binary; $\alpha = .86$, normative-sexual-behavior). Sample items loading on the two scales included the following:

Gender-as-binary:

Gender is determined by biological factors before birth.

People who say there are only two legitimate genders are mistaken.

Normative-sexual-behavior:

In intimate relationships, people should act only according to what is traditionally expected of their gender.

People should partner with whomever they choose, regardless of sex or gender.

In the pilot study, the HABS correlated significantly with RWA, attitudes towards lesbians, and attitudes towards gay men (Habarth, 2008). This was true for both subscales. The items reflecting RWA, heteronormativity, and attitudes towards lesbian and gay men were presented with a seven-point Likert scale ranging from strongly disagree to strongly agree. Following the wording in Altemeyer's (1998) measure of RWA, the midpoint response for each item was "exactly neutral."

Political ideology was measured on a seven-point bipolar Likert scale ranging from extremely liberal to extremely conservative, with a 'no opinion' option as recommended by Knight (1999). This is consistent with recent studies' measurements of political attitudes on scales ranging from conservative to liberal (Morrison & Morrison, 2002), very conservative to radical (Cole, Zucker, & Ostrove, 1998; Stewart, Settles, & Winter, 1998), and right-wing to left-wing (Gaffié, 2006). Social and economic attitudes were evaluated separately to allow for divergent ratings of these aspects of political ideology. Knight's (1999) review noted that findings of separate social and economic factors are among the "best known" in multidimensional studies of liberalism and conservatism (p. 61). Further, I predicted that Log Cabin Republicans, one target group in this study, would likely identify as more fiscally than socially conservative (see Rogers & Lott, 1997).

The following two questions were used to measure political ideology: (1) How would you describe your political position on social issues (e.g., affirmative action, school prayer, abortion)? and (2) How would you describe your political position on financial issues (e.g., taxes, governmental regulation of businesses)? Wording for the item response choices (e.g., "extremely liberal," "liberal," "slightly liberal," "moderate: middle of the road") came from Knight (1999, p. 63). Those who responded "moderate," "don't know," or "haven't thought much about it" were asked whether they would characterize themselves as liberal or conservative if they had to choose one. "Liberal" was then recoded as 3.5 and "conservative" was recoded as 4.5 on the original seven-point scale. These items are consistent with the American National Election Study format (University of Michigan Center for Political Studies, 2004; N. Winter, personal communication, April 4, 2007).

Personality traits and cognitive styles were measured using established, standardized instruments. For example, Altemeyer's (1998) 20-item measure was used to assess *right-wing authoritarianism* (RWA). In Christopher and Mull's (2006) study, Cronbach's alpha for this measure was .95, and D.G. Winter (personal communication, February 23, 2007) reported observing alphas well over .90 across multiple studies. Altemeyer's previous versions of this measure have also demonstrated excellent reliability and validity (see Altemeyer, 1988 and 1996). In the current study, the alpha was .93. Following Duncan, Peterson, and Winter (1997), participants rated each item using a seven-point scale ranging from strongly disagree to strongly agree. Because some of the RWA items refer to homosexuality, I omitted these items before computing mean RWA scores. Thus the resulting score presumably represented a measure of RWA that did not explicitly overlap with the measure of heteronormativity.

The second cognitive construct, *tolerance of ambiguity*, was measured by Budner's (1962) Scale of Tolerance-Intolerance of Ambiguity (TIA), which has been described as the most widely used and well-established measure of this construct (Buhr & Dugas, 2006; Furnham, 1994; Grenier, Barrette, & Ladouceur, 2005). Budner reported that mean reliability of this measure (Cronbach's alpha) among 13 different samples was .49, noting that this low score could be explained by the complex, multidimensional nature of the construct. He wrote, "increasing complexity of a trait increases the probability that individuals will exhibit unique patternings of the component elements... (and) the more complex the construct... and the measure, the lower will the reliability estimate be" (1962, p. 35). Test-retest reliability was much higher, at .85 (1962, p. 35).

Budner's efforts to establish the TIA's validity resulted in "moderate correlations" with other measures of intolerance of ambiguity (range: .36 to .54, $p < .05$), independent judgments of individuals based on autobiographical information ($r = .55$, $p = .05$), and peer ratings of the individuals ($r = .34$, $p < .01$). Reliability in the present study ($\alpha = .60$) was somewhat higher than Budner's original observation. The TIA scale is comprised of 16 items, 8 of which are negatively worded. Sample items include the following: "People who insist upon a yes or no answer just don't know how complicated things really are," and "What we are used to is always preferable to what is unfamiliar." Respondents

indicated how much they agreed or disagreed with each statement on a seven-point scale. In Budner's original measure, no neutral option was offered, and omissions were scored as "4"; in this administration, a neutral option was offered so that this measure would be consistent with others in the study. Because this scale was used in the present study to measure *tolerance* (rather than *intolerance*) of ambiguity, negatively-worded items were reverse coded so that higher scores indicated greater tolerance. Finally, a mean total score was calculated for this measure.

Third, *openness to experience* was measured by eight items from Saucier's (2002) 40-item Mini-Modular Markers (3M40). I chose this set of adjectives on the basis of Saucier's (2002) report of this measure as an improvement on previous measures of Big Five factors. The 3M40, drawn from 90 Modular Markers (Saucier, 2002), has demonstrated lower intercorrelations (and therefore greater orthogonality) among Big Five factors as compared to Goldberg's (1992) 100-adjective measure. Saucier reported Cronbach's alphas for the 5 factors as ranging from .67 to .82 (2002, p. 22). Further, correlations between 3M40 ratings and reported patterns of behavior (ranging from .31 to .41) and 3M40 ratings and peers' ratings of the same individuals using an alternative Big Five measure (ranging from .42 to .65) provide evidence of the measure's predictive and concurrent validity (Saucier, 2002, p. 26). Only "openness to experience" items from the 3M40 measure were administered in the present study, and these items were randomly inserted into the PAQ gender role measure described above. The items were presented in a bipolar format; respondents chose a letter signifying their position on a scale between two extremes, ranging, for example, from very conventional to very unconventional or from very complex to not at all complex. After reverse-coding items with negative factor loadings, a mean score was computed, following Saucier's recommended scoring method for a similar measure (2005). Reliability for these eight items ($\alpha = .68$) was consistent with Saucier's reports for the 3M40.

Psychological well-being was assessed by measuring depression and life satisfaction, following Luhtanen (2003) and Settles (2004). *Depressive symptoms* (negative well-being) were assessed with the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). An established indicator of depressive symptoms, the CES-D has been described as possessing good internal reliability among

clinical and community samples (Cronbach's alpha = .84 - .90; e.g., Settles, 2004) and discriminant validity (.50 - .70), though it demonstrates poor test-retest reliability over long spans of time (Ensel, 1986, as reported in Oetjen & Rothblum, 2000, p. 60). Test-retest reliability, however, is less relevant because the measure asks specifically about how often depressive symptoms occurred during the past week on a four-point scale (0 = rarely or none of the time; 3 = most of the time). Thus this measure is intended as a gauge of *recent* symptoms, not of enduring or stable characteristics. After reverse-coding for negatively worded items, a mean score was calculated, with higher scores indicating greater depressive symptomatology.

Satisfaction with life was measured with Diener and colleagues' (1985) Satisfaction with Life Scale. Cited over 900 times (based on a recent search using PsycINFO), this five-item measure is clearly established in the literature. The measure has demonstrated strong internal reliability (Cronbach's alpha = .85; Baird, Le, & Lucas, 2006), and Diener and colleagues (1985) report a moderate correlation with self-esteem and a nonsignificant correlation with social desirability. A five-point response scale (from strongly agree to strongly disagree) was used, and responses from the five questions were averaged to compute a total life satisfaction score.

Finally, *social desirability* was measured using the 13-item Marlowe-Crowne short form (Reynolds, 1982). This well-established measure has over 200 citations in the literature (based on a recent literature search using PsycINFO). Reynolds reported that the measure yielded a Cronbach's alpha of .76 and correlated at $r = .93$ with the standard 33-item created by Crowne and Marlowe (1960). The response format is true/false, with higher scores indicating a greater tendency towards responding according to presumed social desirability norms. An overall social desirability mean was calculated after reverse-coding items indicating lower social desirability.

Procedures

Recruitment. Initial calculations indicated that reaching at least 400 participants from a range of demographic backgrounds would provide enough power to detect moderate effect sizes in relationships among study variables (B. West, personal communication, February 28, 2007). Therefore, I employed a variety of recruitment

techniques (see Appendix B for sample recruitment materials). First, email invitations were sent to a wide range of organizations in the metropolitan areas of Detroit, Lansing, Ann Arbor, and Grand Rapids. The organizations included conservative and liberal political groups, sexual minority social and political networks (including a politically conservative sexual minority network), faculty and staff at colleges and universities, civic clubs, foundations, churches and religious networks, professional networks, and small businesses. I targeted these organizations in order to maximize variance according to gender, sexual identity, political orientation, and racial/ethnic identity. I offered an incentive of \$5 per completed survey referral in the hopes of increasing organizational participation in recruitment. Thus, \$5 was credited to referring organizations, or to a charity of their choice, for every participant who indicated that they had heard of the survey through a particular referring organization. In addition, a snowball method was used to gather contact information for additional relevant organizations.

The second recruitment method involved posting advertisements on Facebook, an Internet-based social networking site. Because I had difficulty reaching socially conservative participants using the first recruitment method, Facebook advertisements were targeted to reach those who identified as politically conservative or Republican. Third, participants were recruited in-person and via flyers passed out at athletic and political events in Michigan. These events included University of Michigan and Michigan State University football games, Detroit Lions football games, political rallies for John McCain, and the Michigan Presidential Primary Election (polling locations with a prior history of politically conservative voting). Although the study proposal also included a plan to advertise in local weekly newspapers and magazines, this method was not used because of a predicted low response rate (E. Zurbruggen, personal communication, July 25, 2006). The response rate for the first (organizational and snowball) recruitment method was quite high ($N = 584$ total surveys, 548 usable surveys), whereas the second and third methods yielded a much lower combined number of participants ($N = 30$ total surveys, 28 usable surveys).

Survey website and data collection. The survey was administered online through Psych Data, an Internet survey company based in State College, PA. Designed to meet the needs of psychology researchers, this company provides pricing options for unlimited

use or for use based on number of months, number of survey questions, and number of participants. All survey recruitment materials described the option to complete the survey via a more traditional paper-and-pencil mode, but no participants selected this option. Psych Data provides a “Secure Survey Environment” which offers numerous privacy and data security protections, such as data encryption during transmission, protections against retrieving data once a participant has responded to any questions, and the option to suppress participants’ Internet Protocol addresses from the survey database. In addition, Psych Data offers regular backups to protect against lost data, and its staff members are trained to adhere to ethics consistent with IRB expectations of research involving human subjects. Appendix C contains more detailed information about Psych Data’s security features. Additional benefits to using this particular service include a user-friendly interface, a range of survey presentation options, and the option to allow participants to create unique user IDs and passwords so that they may save a partially completed survey and return to complete it at a later time.

Because the survey was anonymous, signed consent forms were not used. However, before beginning the survey, participants were presented with a webpage that (1) explained the benefits and risks associated with the study and (2) stated that only people age 25 and older were eligible to participate. After completing the survey, participants were given a choice of nonprofit organizations (e.g., 4-H, Hospice, Arts Council of Greater Lansing, Big Brothers-Big Sisters of Metropolitan Detroit, the Make-a-Wish Foundation, the Red Cross, the United Way, Affirmations Gay and Lesbian Community Center, Michigan Environmental Council, The Triangle Foundation) to which a donation of \$5 was made in appreciation of participants’ efforts.

Items measuring study variables were administered in the following order: RWA, tolerance of ambiguity, openness to experience, gender-role orientation, political ideology, contact with sexual minorities, sexual orientation (identity, attraction, fantasy, behavior, fluidity, and identity disclosure), attitudes about bisexuality and fluidity, heteronormativity, psychological well-being (depression and life satisfaction), social desirability, and demographics. At the end of the questionnaire, an open-ended prompt asked participants to share any additional comments. Data from this open-ended question were analyzed to determine the presence of themes. Because only approximately 30% of

participants shared comments at the end of the survey, the resulting themes were not analyzed in relation to other survey item responses.

Sample Characteristics

Overall sample. A total of 717 people accessed the survey website, 614 people answered at least one question, and 576 responded to enough items to be included in the final sample. Of the 500 participants who indicated their gender, 55% were women, 44% were men, and four participants (1%) identified as transgendered. Basic demographic characteristics are presented in Tables 1-3, and more detailed information is included in Appendix D (Tables D2-D3 and D6-D8). As noted above, acceptable variance was achieved in sampling with respect to gender, sexual identity (38% sexual minority), age ($M = 45$, $SD=13$), and political orientation (18% socially conservative, 34% economically conservative). However, the sample was largely European-American or White (8% racial/ethnic minority), well-educated (70% had a college degree), and financially well-off (only 12% indicated financial difficulties). Sixty-nine percent of participants reported that they were married or in a committed relationship, whereas the remaining participants indicated that they were single, divorced, separated, or widowed. In addition, 40% of participants reported that at least one child lived with them at home. Sixteen percent ($n = 77$) of participants were part- or full-time students, and 71% were employed full-time.

Although there was minimal variance according to racial/ethnic minority status, education level, and SES, participants did come from a range of different religious background and communities. For example, 44% ($n = 214$) were from medium or large-sized cities, 34% from suburbs of larger cities, and 22% from small towns or rural communities. With respect to religion, 73% of participants indicated that they were from Christian religious backgrounds, but only 45% described their current religion as Christian. Seventeen percent of participants indicated that they observed a non-Christian religion (including Judaism, Buddhism, Hinduism, or Pagan religions), 12% simply indicated that they were “religious” or “spiritual,” and 27% reported that they were currently atheist or agnostic.

As described above, I wished to understand participants’ historical contexts and therefore assigned cohort membership according to events that occurred when

Table 3

Sample Characteristics: Socioeconomic Status

Variable	<i>N</i>	%
Current financial situation		
Very poor	10	2.1
Barely enough to get by	48	9.9
Enough to get by	172	35.5
More than enough to get by	196	40.4
Well to do	50	10.3
Extremely well to do	9	1.9
Total	485	
Missing	91	
Education		
High school degree	9	1.9
Some college	78	16.1
College degree	132	27.2
Graduate/ professional degree	266	43.8
Total	485	
Missing	91	

Note. A composite SES score was calculated based on the mean of the standardized scores for education and current financial situation.

participants were coming of age (18-25) and, for sexual minorities, when they first “came out” to themselves or others. The largest coming-of-age cohort was defined by the AIDS crisis from 1985-1995 ($n = 220$). Other cohorts were defined by the 1969 Stonewall Riots in New York City (Stonewall Cohort $n = 77$; Pre-Stonewall Cohort $n = 31$), the removal of homosexuality from the Diagnostic and Statistical Manual by the American Psychiatric Association in 1973 ($n = 97$), and a series of progressive social and legal changes following the AIDS crisis ($n = 59$; see Appendix Tables D9-D10 for more detailed information, including counts and percentages for “coming out” cohorts).

As noted above, 38% of participants were categorized as sexual minorities. This group included all those who indicated that they were “mostly heterosexual” and “somewhat more heterosexual than gay/lesbian” as well as those who identified with lesbian, gay, or bisexual descriptors of themselves (see Table 1 and Appendix Table D11 for more detailed data on sexual identity and fluidity). Many of the analyses reported below involve comparisons between sexual minorities and heterosexuals, or separate evaluations of relationships among variables for sexual minorities and heterosexuals. The theoretical basis of this dissertation, heteronormativity, is consistent with such a qualitative distinction between those whose sexual identities and experiences are in accordance with societal expectations, and those (sexual minorities) whose sexual identities or experiences transgress such norms. This distinction also facilitates easily interpretable results in data analysis.

However, it is important to remember that those defined as sexual minorities in this study represent a range of sexual identities and experiences. For example, whereas $2/3$ ($n = 124$) of sexual minorities identified as exclusively lesbian or gay, the remaining $1/3$ identified somewhere between the two poles of heterosexual and lesbian/gay. Nine participants specifically identified themselves as bisexual, but an additional 54 individuals placed themselves closer to one pole than the other.

As noted in Chapter I, I decided to use the phrase “bisexual/between” for all those who identified somewhere between exclusively lesbian/gay and exclusively heterosexual. This allowed me to reach a compromise among parsimony, accuracy, and inclusiveness in my choice of terminology. By selecting this phrase, I hoped to capture some of the complexity and variety represented by this “middle” group, while avoiding conflating the

intra-group variety with individual fluidity in sexual orientation. Because this bisexual/between group was considerably smaller than the heterosexual and lesbian/gay groups, most of the analyses reported below combined all sexual minorities into one group. When possible and theoretically indicated, additional analyses were performed to test for differences between bisexual/between and gay/lesbian groups.

Demographic and political differences by sexual minority status. Several differences in demographic characteristics were observed between sexual minorities and heterosexuals. For instance, it appeared that a greater percentage of heterosexuals were Catholic as compared to sexual minorities, whereas the data suggested that more sexual minorities were Protestant or described themselves simply as “spiritual” or “religious” as compared to heterosexuals ($\chi^2(5, n = 462) = 16.42, p < .01$). In addition, more heterosexuals (76%) were married or in a committed relationship as compared to sexual minorities (58%) ($\chi^2(1, n = 477) = 16.39, p < .001$). There were no significant differences by sexual identity with respect to age, race/ethnicity or type of community (see Appendix Table D12 for further details). There were, however, differences in levels of education, with heterosexuals reporting slightly higher average levels ($t(476) = 3.41, p < .01$). Although there were no differences in childhood financial situations, heterosexuals reported better current financial situations than sexual minorities ($t(476) = 3.11, p < .01$). Heterosexual participants were also more socially conservative ($t(491) = 6.17, p < .001$) and economically conservative ($t(490) = 3.12, p < .01$) than sexual minorities.

Demographic and political differences by gender. Men and women demonstrated some significant differences on both categorical and continuous demographic variables. For example, whereas just over half (53%) of men in the sample were heterosexuals, most of the women (70%) identified as exclusively heterosexual ($\chi^2(1, n = 489) = 15.86, p < .001$). Race/ethnicity and relationship status did not differ significantly by gender (see Appendix Table D13). However, there was a trend towards significant differences in current religious orientation by gender; it appeared that a greater percentage of women identified as Catholic as compared to men, whereas the data suggested that a greater percentages of men identified as Protestant and atheist/agnostic ($\chi^2(5, n = 465) = 10.16, p < .10$). Women, on average, were also slightly younger than men in the sample ($t(478) =$

2.62, $p < .01$). Women reported somewhat less prosperous financial situations, both current ($t(479) = 2.43, p < .05$) and childhood ($t(478) = 3.34, p < .01$), as compared to men in the study. Women and men did not differ in their levels of education or social political orientation (see Appendix Table D14), but men reported being more economically conservative than women ($t(493) = 4.17, p < .001$)

Plan of Data Analyses

After computing composite scores for each construct, I evaluated descriptive statistics and then examined correlations, analyses of covariance (ANCOVAs), and multiple regressions to test the hypotheses as listed below. Correlations and chi squares were used to determine the significance of relationships between pairs of variables (continuous and categorical); t -tests, one-way ANCOVAs, and two-way ANCOVAs were used to test for significant differences in continuous variables by group status (e.g., women vs. men, sexual minorities vs. heterosexuals); and multiple regressions assessed the differential effects of independent variables on outcomes such as psychological well-being. Specific analyses were performed as follows:

- Hypothesis 1. Two-way analyses of covariance (ANCOVAs) assessed differences in sexual orientation fluidity scores by gender, both overall and within sexual orientation groups. Women were expected to report greater sexual orientation fluidity than men, even when controlling for sexual orientation.
- Hypothesis 2. One-way ANCOVAs assessed the differences in RWA and heteronormativity scores by sexual minority status. Sexual minority participants were expected to report lower heteronormativity and RWA than heterosexual participants.
- Hypothesis 3. One-way ANCOVAs assessed the differences in tolerance of ambiguity and openness to experience scores by sexual minority status. Sexual minority participants were expected to report greater tolerance of ambiguity and openness to experience than heterosexual participants.
- Hypothesis 4. Partial correlations assessed the significance of relationships between heteronormativity and sexual orientation fluidity, tolerance of ambiguity, and openness to experience.

- Hypothesis 5. Partial correlations assessed differences in heteronormativity, RWA, tolerance of ambiguity, and openness to experience scores among heterosexuals according to their contact with sexual minorities. Heterosexuals with greater contact with sexual minorities were predicted to report significantly lower heteronormativity and RWA and greater tolerance of ambiguity and openness to experience.
- Hypothesis 6. Multiple regressions were used to assess the variance among heterosexuals in heteronormativity accounted for by gender and contact with sexual minorities. Both variables were expected to be significant predictors of heteronormativity.
- Hypothesis 7. Fisher's r to z transformations allowed for assessment of differences between correlation coefficients by sexual minority status with respect to the relationships between psychological well-being and heteronormativity, tolerance of ambiguity, and openness to experience. Sexual minorities were expected to demonstrate significantly stronger correlations, because heteronormativity, tolerance of ambiguity, and openness to experience are theorized to be more salient to sexual minorities' psychological well-being.
- Hypothesis 8. Multiple regressions were used to assess the variance among sexual minorities in positive well-being accounted for by identity disclosure, tolerance of ambiguity, openness to experience, RWA, and heteronormativity, all of which were expected to be significant predictors.

CHAPTER III

RESULTS

This chapter begins with a description of preliminary analyses and results and concludes with the results of analyses specific to the hypotheses listed above. The preliminary analyses include an assessment of (1) relationships among demographic variables, (2) descriptive statistics for the major scales, and (3) relationships among potential confounds (age, SES, social desirability) and dependent variables (attitudes about sexuality, and psychological well-being). The remaining analyses were based on the study's core hypotheses and related questions that arose during the process of analyzing the data. With few exceptions, the hypotheses were well-supported by the data.

Preliminary Analyses: Demographics, Descriptives, and Potential Confounding Variables

As a preliminary step towards hypothesis testing, I first examined relationships among demographic variables, descriptive data for the main study variables, and relationships between demographics, potential confounds, and dependent variables. These data and analyses are described below.

Relationships among demographic variables. As shown in Table 4, there are numerous significant correlations among demographic variables. For example, participant age correlates significantly with employment status and student status as well as current and childhood subjective SES ratings (older participants were less likely to be employed or students, reported more positive current financial situations and more negative childhood financial situations). In addition, level of education and current financial situation, the two variables used to create a composite SES score, correlate significantly with each other ($r = .20, p < .001$), and current financial situation correlates significantly with all of the other continuous demographic variables (age, employment

Table 4

Intercorrelations Among Demographic and Political Orientation Variables (N = 477-506)

Variable	2	3	4	5	6	7	8
1. Age	-.25***	-.36***	-.07	.16***	-.14**	-.02	-.07
2. Employment status	--	-.23***	.17***	.16**	.02	.04	.00
3. Student status		--	.05	-.13**	.07	.03	.04
4. Education			--	.20***	.14**	-.02	-.01
5. Current financial situation				--	.17***	.00	.06
6. Financial situation while growing up					--	.07	.10*
7. Political orientation (social)						--	.66***
8. Political orientation (economic)							--

* $p < .05$, ** $p < .01$, *** $p < .001$

status, student status, and childhood financial situation). Because of concerns about the components of SES (current financial situation and education) being inaccurate estimates of “actual” SES for students, I conducted additional analyses of social-class component variables by student status. Although comparing full- and part-time students to non-students did not yield a significant difference in educational level, the two groups were different in current financial situation categories. Nearly 2/3 of students, but only 45% of non-students, reported that they were “very poor,” “had barely enough to get by,” or “had enough to get by but not many extras” ($\chi^2(1, N = 478) = 9.35, p < .001$).

Because the lower current financial status reported by students may not reflect “actual” (or prospective) social class for current students, I ran all major analyses both with the full sample and also excluding students. Because the results were consistent regardless of the inclusion of students in the sample, I have reported results from full-sample analyses below.

Descriptive statistics. Means, standard deviations, and ranges for all major scales are presented in Appendix Table D15. Histograms revealed that major variables approximated normal distribution, with some exceptions. For example, social and economic political orientations, RWA, heteronormative attitudes about sexual behavior, and depressive symptoms showed some negative skew. In addition, femininity and life satisfaction were somewhat positively skewed. However, given the robustness of the statistical procedures used, I determined that the analyses did not need to be corrected for violation of normal distribution. In addition, these somewhat skewed distributions were expected given that the sample included more liberal than conservative participants and more women than men.

Age, SES, and social desirability as potential confounds. Age, SES, and social desirability were significantly correlated with numerous scales and items reflecting attitudes about sexuality and/or psychological well-being, both in the overall sample and also within various subgroups (women, men, sexual minorities, and heterosexuals; see Appendix Tables D16 through D21). Therefore, age and SES were included as covariates or controls in all analyses, and social desirability was included as a control when examining relationships between psychological variables.

Differences by Gender Identity and Gender-Role Orientation

Differences in components of sexual orientation by gender. The first major hypothesis concerns differences in sexual orientation fluidity by gender. Specifically, women were expected to demonstrate greater sexual fluidity, or change in sexual orientation, than men. Although fluidity was assessed across multiple domains of sexual orientation, I have focused here on self-reported changes in overall sexual orientation⁵. As shown in Table 5, a two-way ANCOVA revealed that women reported greater sexual fluidity than men, and that sexual minorities were more fluid than heterosexuals. Post hoc pairwise comparisons⁶ revealed that the gender differences held only for sexual minorities; whereas sexual minority women reported greater fluidity than sexual minority men, fluidity was not significantly different for heterosexual women and men. Additional post hoc analyses demonstrated that for both women and men, sexual minorities reported greater fluidity than heterosexuals. A second ANCOVA, omitting the bisexual/between group and including only exclusively lesbian/gay and heterosexual subgroups replicated these results (see Appendix Table D22). This test was conducted to rule out the possible inflation of sexual minority fluidity scores including people who, being neither exclusively heterosexual nor exclusively lesbian/gay, would presumably report greater change in sexual orientation over time. Finally, I ran a third ANCOVA, examined estimated marginal means by gender for bisexual/ between participants, and found that bisexual/between women reported greater sexual fluid than bisexual/between men ($F(1,463) = 10.24, p < .01$).

Differences in gender role orientation. Because I conceptualized rigid gender role expectations to be a prerequisite for heteronormative attitudes about sexuality, I examined the variation in gender-role orientation before assessing differences in personality or outcome measures. As expected, two-way ANCOVAs (see Appendix Tables D23 and D24 for complete statistics) revealed that women's scores on femininity were higher than men's ($F(1,466) = 16.10, p < .001$), although post hoc analyses showed

⁵ Recall that the sexual identity categories were defined by participants' self-categorization based on the past year only, and the fluidity item asked participants to report how much their sexual orientation had changed throughout their lives.

⁶ Because of the need to account for covariates, all post hocs involved Least Significant Difference adjustments based on comparisons of estimated marginal means from the ANCOVA analyses.

Table 5

Analysis of Covariance of Sexual Orientation Fluidity by Gender and Sexual Minority Status

	Descriptive statistics							
	Men			Women			Total	
	<i>n</i>	<i>M</i>	<i>SE</i>	<i>n</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Sexual minority	99	1.81 _{ab}	.09	80	2.58 _{ac}	.10	2.19	.07
Exclusively heterosexual	107	1.08 _b	.09	185	1.17 _c	.06	1.12	.05
Total		.44	.06		1.88	.06	1.66	.04

Note. All means are adjusted for the effects of age and SES. Cell means with common subscripts are significantly different from each other at $p < .05$.

Variance table				
Effect	Sum squares	<i>df</i>	<i>MS</i>	<i>F</i>
Gender	19.69	1	19.69	26.77***
Sexual identity	118.43	1	118.43	161.02***
Gender × sexual identity	12.55	1	12.55	17.07***
Error	342.01	465	.74	

*** $p < .001$

that this finding only held up for heterosexual women; there was no difference in femininity among sexual minority men and women. There was no main effect for gender when examining variance in masculinity ($F(1,466) = .03, p = ns$). However, post hoc comparisons showed that heterosexual men had significantly higher masculinity scores than sexual minority men ($M_s = 3.79$ and 3.61 , respectively).

I had also predicted that gender role conformity would be stronger among more socially conservative individuals, such that women high on social conservatism would score higher on measures of femininity and lower on measures of masculinity, and men high on conservatism would score higher on masculinity and lower on femininity. Because neither age nor SES correlated with social conservatism for women or men, I did not include controls when computing these simple correlations. For men, correlations were significant in the predicted directions: social conservatism correlated negatively with feminine role characteristics ($r = -.23, n = 218, p < .01$) and positively with masculine role characteristics ($r = .17, n = 218, p < .05$). However, these correlations were not significant for sexual minority men. For women overall, social political orientation did not relate significantly to femininity or masculinity. Among sexual minority women and heterosexual women, only one trend towards significance emerged: for sexual minority women, there was a trend towards greater social conservatism correlating with lower expressions of femininity ($r = -.19, n = 81, p < .10$).

Attitudinal and Personality Differences by Sexual Identity

I made several predictions about differences in personality and attitudinal variables by sexual identity, all of which were supported by the results. Specifically, one-way ANCOVAs indicated that sexual minorities were significantly lower than heterosexuals in both heteronormativity ($F(1,466) = 84.86, p < .001$) and RWA ($F(1,471) = 41.35, p < .001$). In addition, sexual minorities demonstrated greater tolerance of ambiguity ($F(1,470) = 7.49, p < .01$) and greater openness to experience ($F(1,471) = 14.32, p < .001$) than heterosexuals (see Appendix Table D25 for adjusted means). Some of these differences might be artifacts of high correlations between RWA and political conservatism. After controlling for social political orientation in addition to age and SES, the differences by sexual minority status remained highly significant for RWA ($F(1,$

470) = 7.89, $p < .01$) and heteronormativity ($F(1, 465) = 45.79, p < .001$), but only marginally significant for openness to experience ($F(1, 470) = 3.37, p < .10$). Sexual minority status differences were nonsignificant for tolerance of ambiguity when controlling for social political orientation in addition to age and SES ($F(1, 469) = .31, p = ns$).

Further analyses confirmed that these sexual identity differences generally held among women and men, although sexual minority men were no more tolerant of ambiguity ($F(1, 203) = 2.43, p = ns$) or open to experience ($F(1, 201) = .41, p = ns$) than heterosexual men. With respect to all four of these dependent variables (RWA, heteronormativity, tolerance of ambiguity, and openness to experience, there were no differences observed in post-hoc comparisons of exclusively gay vs. bisexual/between men. Similarly, there were no significant differences in mean scores for lesbian vs. bisexual/between women.

Correlates of Heteronormativity

I had predicted that heteronormative attitudes would covary with aspects of personality such as (low) sexual fluidity, (low) tolerance of ambiguity, (low) openness to experience, and (high) right-wing authoritarianism (RWA). First, however, I assessed whether heteronormativity correlated positively with social desirability. Social desirability correlates slightly but significantly with the normative-sexual-behavior subscale ($r = .14, n = 480, p < .01$), but does not correlate significantly with the gender-as-binary subscale ($r = .08, n = 479, p = ns$).

Next, after controlling for social desirability, I observed that each of the remaining predictions was supported by the data. Sexual fluidity, as measured by a 5-point Likert self-report item (“Throughout my life, my sexual orientation has... always been the same” ... “very often changed”) correlated negatively with both subscales of heteronormativity ($r = -.24, n = 476, p < .001$ for gender-as-binary subscale; $r = -.19, n = 477, p < .001$ for normative-sexual-behavior subscale). Tolerance of ambiguity also demonstrated strong negative correlations with both subscales of heteronormativity ($r = -.37, n = 476, p < .001$ for *gender-as-binary subscale*; $r = -.40, n = 477, p < .001$ for *normative-sexual-behavior subscale*). Similarly, openness to experience correlates

negatively with both subscales ($r = -.32, n = 476, p < .001$ for gender-as-binary subscale; $r = -.29, n = 477, p < .001$ for normative-sexual-behavior subscale). In addition, as predicted, RWA shows extremely high positive correlations with both subscales of heteronormativity ($r = .58, n = 476, p < .001$ for gender-as-binary subscale; $r = .78, n = 477, p < .001$ for normative-sexual-behavior subscale). Similar correlational patterns emerged among women and men, although for men, there was no significant relationship between sexual orientation fluidity and the normative-sexual-behavior subscale, and there was only a near-significant correlational trend with the gender-as-binary subscale ($r = -.12, n = 206, p < .10$). One anomalous result was observed within sexual identity subgroups: sexual fluidity correlated *positively* with normative beliefs about sexual behavior among exclusively lesbian/gay participants (see Table 6). However, when examined by gender sub-groups, this only remained true for gay men ($r = .33, n = 64, p < .01$); lesbian sexual fluidity had no significant relationship with the normative-sexual-behavior subscale.

Although the directions of correlations between personality variables and heteronormativity are generally the same across the sample, somewhat different patterns of significance emerged according to sexual identity subgroups. For example, neither tolerance of ambiguity nor openness to experience correlated significantly with heteronormative attitudes for bisexual/between sexuality participants, but these variables did correlate significantly with at least one aspect of heteronormativity among exclusively gay/lesbian and exclusively heterosexual participants. As shown in Table 6, comparisons based on Fisher's r to z transformations revealed significant differences between several of these correlations. Tables D26 and D27 include correlates of heteronormativity by both gender and sexual identity subgroups. Although sexual fluidity appears to relate to heteronormativity more strongly for sexual minority men as compared to sexual minority women, comparisons based on Fisher's r to z transformation revealed that none of these apparent differences were significant.

Another significant correlate of heteronormativity was social conservatism, which demonstrated relationships with heteronormativity as well as other scales in the predicted directions. First, social conservatism was observed to correlate positively with both subscales of heteronormativity: gender-as-binary ($r = .55, n = 476, p < .001$) and

Table 6

Correlates of Heteronormativity by Sexual Identity

Variable	Gender as binary			Normative sexual behavior		
	Exclusively lesbian or gay (<i>n</i> = 117-119)	Bisexual/ between (<i>n</i> = 58-59)	Exclusively heterosexual (<i>n</i> = 286)	Exclusively lesbian or gay (<i>n</i> = 117-119)	Bisexual/ between (<i>n</i> = 58-59)	Exclusively heterosexual (<i>n</i> = 286)
Sexual fluidity item	-.01	.00	-.13*	.11 _c	-.23 _c *	-.05
RWA (no LGBT items)	.25 _a **	.47***	.62 _a ***	.60 _d **	.75***	.78 _d ***
Tolerance of ambiguity	-.33**	-.13 _b	-.43 _b ***	-.34***	-.21 _e	-.47 _e ***
Openness to experience	-.19*	-.11	-.33***	-.23*	-.08	-.29***

Note. All correlations were adjusted for the effects of age, SES, and social desirability. Coefficients with common subscripts are significantly different from each other at $p < .05$.

* $p < .05$, ** $p < .01$, *** $p < .001$

normative-sexual-behavior ($r = .67, n = 477, p < .001$). In addition, social conservatism correlated negatively with tolerance of ambiguity ($r = -.39, n = 480, p < .001$) and openness to experience ($r = -.35, n = 481, p < .001$). Further, these relationships were significant when examined among women, men, lesbians/gay men, bisexual women and men, and heterosexuals, with one exception: the relationship between social conservatism and tolerance of ambiguity was nonsignificant for bisexual participants. Comparisons based on Fisher's r to z transformations revealed significant differences between many of the comparisons by sexual identity; in particular, relationships between social conservatism and all variables except openness to were generally stronger for heterosexuals as compared to at least one of the two sexual minority subgroups (see Appendix Table D28).

Correlates of Contact with Sexual Minorities

I made several predictions about relationships between contact with sexual minorities and attitudinal and personality variables for heterosexuals. For example, I hypothesized that heterosexuals with higher levels of contact with sexual minorities would report lower heteronormativity and RWA than heterosexuals with less sexual minority contact. As described above, numbers of lesbian and gay male friends were averaged to produce a single variable reflecting contact with sexual minorities. Even after accounting for the effects of age, SES, and social desirability, I found that number of gay/lesbian friends correlates negatively with both the gender-as-binary ($r = -.25, n = 278, p < .001$) and normative-sexual-behavior ($r = -.36, n = 278, p < .001$) subscales of the heteronormativity measure. Number of gay or lesbian friends is negatively related to RWA for heterosexuals in this sample ($r = -.28, n = 278, p < .001$). These findings were similar for both women and men.

I also predicted that heterosexuals with higher levels of sexual minority contact would demonstrate greater tolerance of ambiguity and openness to experience than heterosexuals with lower levels of contact with sexual minorities. I found that both tolerance of ambiguity ($r = .23, n = 278, p < .001$) and openness to experience ($r = .24, n = 278, p < .001$) correlated significantly with number of gay or lesbian friends. These

findings were also significant when comparing sexual minorities to heterosexuals within gender sub-groups.

Predicting Heteronormativity Among Heterosexuals

The final three hypotheses in the study involve predictions within sexual identity groupings. First, I predicted that for heterosexuals, gender and contact with sexual minorities would contribute uniquely to variance in heteronormativity. As shown in Table 7, hierarchical regressions support this hypothesis; being a woman and having relatively more lesbian and gay friends both demonstrated independent, significant negative relationships to overall heteronormativity scores. Results were equivalent for both overall heteronormativity and its two subscales (gender-as-binary and normative-sexual-behavior).

Comparing Correlates of Psychological Well-Being by Sexual Minority Status

Building on research described above, I hypothesized differences in correlations among attitudes, personality characteristics, and psychological well-being by sexual minority status. I anticipated that heteronormative attitudes and related personality characteristics would be relevant (or more relevant) to mental health outcomes for sexual minorities as compared to heterosexuals. As shown in Table 8, there were no differences by sexual minority status in correlations between psychological well-being and either tolerance of ambiguity or openness to experience. However, heteronormative beliefs about sexual behavior correlated negatively with life satisfaction for sexual minorities and did not correlate significantly for heterosexuals. Among lesbian women only, I found that tolerance of ambiguity correlated positively with overall heteronormativity and negatively with depression, and life satisfaction correlated negatively with normative attitudes about sexual behavior (see Appendix Table D29). These relationships were nonsignificant for bisexual/between and heterosexual women. Among men, a somewhat different pattern emerged. Whereas binary beliefs about gender appeared to predict fewer depressive symptoms for heterosexual men and greater life satisfaction for gay

Table 7

Summary of Hierarchical Regression Analyses for Variables Predicting Heteronormativity Among Heterosexuals (n = 278)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Age	-.03	.06	-.03	-.04	.06	-.04	.06	.06	.06
SES	-.09	.07	-.08	-.14	.07	-.12*	-.12	.06	-.11 [†]
Gender				-.44	.13	-.20**	-.40	.12	-.19***
LG contact (friends)							-.40	.07	-.33***
R^2		.01			.05			.15	
<i>F</i> for change in R^2		1.01			11.37**			32.14***	

Note. Because including the interaction term for gender \times contact resulted in no significant increase in R^2 , I have not included it in this table.

[†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 8

Intercorrelations Among Psychological Well-Being, Demographic Variables, and Independent Variables for Sexual Minorities and Heterosexuals

Variable	Psychological well-being			
	Depressive symptoms		Life satisfaction	
	Sexual minorities (<i>n</i> = 177-185)	Heterosexuals (<i>n</i> = 282-295)	Sexual minorities (<i>n</i> = 187-184)	Heterosexuals (<i>n</i> = 282-296)
Age				
SES composite				
Social desirability				
Heteronormativity:				
Total	Raw			
	Adjusted			
Gender as binary	Raw			
	Adjusted			
Normative sexual behavior	Raw			
	Adjusted			
Tolerance of ambiguity	Raw			
	Adjusted			
Openness to experience	Raw			
	Adjusted			

Note. Where indicated, correlations were adjusted for the effects of age, SES, and social desirability. Correlation coefficients with a common subscript are different from each other at $p < .05$.

$^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

men, heteronormativity correlated with *lower* life satisfaction among bisexual/between men (see Appendix Table D30). Although I have reported these results here, I have focused in Chapter IV on interpreting the results of regression analyses, because they include additional variables and thus provide greater context for understanding mental health outcomes among sexual minorities.

Predicting Mental Health Outcomes Among Sexual Minorities

Finally, I examined combined predictors of psychological well-being among sexual minorities. Well-being was operationalized along two dimensions (depressive symptoms and life satisfaction), so I constructed separate regression analyses for these two dependent variables. I had hypothesized that identity disclosure, tolerance of ambiguity, and openness to experience would predict greater psychological well-being, whereas RWA and heteronormativity would predict lower well-being scores⁷.

It is important to note that the analyses reported below are somewhat different than those originally planned. After finding nonsignificant results based on analyses with all sexual minorities, I decided to pursue analyses separately for exclusively lesbian/gay and bisexual/between participants. Further, I excluded tolerance of ambiguity and openness to experience from the analyses reported below because they demonstrated no independent significant relationships with depression or life satisfaction, and I added variables (femininity and masculinity) that *had* demonstrated significant relationships in the partial correlations reported above (see Appendix Tables D19 and D20)⁸. Thus, my approach to these regression analyses shifted somewhat from hypothesis-testing to an assessment of whether observed correlates of psychological well-being continued to predict this outcome when including other variables in the model. Therefore, the following results need to be cross-validated by future studies.

First, I examined predictors of depression. Table 9 shows that greater mean disclosure of sexual identity, but none of the other variables, predicted fewer depressive symptoms for exclusively gay and lesbian participants. For the bisexual/between

⁷ Because RWA and heteronormativity were correlated, I computed VIF and tolerance for variables in each regression model to confirm that multicollinearity was not problematic for these analyses.

⁸ Because RWA and heteronormativity were correlated, I computed VIF and tolerance for variables in each regression model to confirm that multicollinearity was not problematic for these analyses.

subgroup, I added femininity and masculinity to the model because of significant correlations with depression. As shown in Table 10, greater expression of socially sanctioned “feminine” and “masculine” traits both predicted fewer depressive symptoms for the subgroup composed of bisexual/between men and women, but no other variables related significantly to depression. Despite small subgroup *ns* that reduced the number of significant effects, some of the regression patterns were clearly similar for men and women within sexual identity subgroups. However, I also observed several potentially meaningful differences. For example, disclosure appears to be less relevant to lesbian women’s as compared to gay men’s depressive symptoms. For bisexual/between women, higher masculinity and femininity scores *both* predicted fewer depressive symptoms, whereas these relationships were much weaker for bisexual/between men.

The second psychological outcome variable was life satisfaction. As with the analyses examining depressive symptoms, I first determined that several variables in the original hypothesis were unrelated to life satisfaction for sexual minorities. I therefore excluded tolerance of ambiguity, openness to experience, and the gender-as-binary subscale of the Heteronormative Attitudes and Beliefs Scale (HABS) from the final regression analyses. As shown in Table 11, sexual identity disclosure *positively* predicted life satisfaction for lesbians/gay men. Table 12 summarizes results for bisexual/between participants. For this subgroup, masculinity *positively* predicted life satisfaction, and heteronormativity *negatively* predicted life satisfaction, but only when the interaction between heteronormativity and disclosure was included in the model. In addition, disclosure demonstrated a near- significant trend towards positively predicting life satisfaction for this subgroup, after accounting for the effects of all other variables in the model. Several differences emerged for men and women within sexual identity groups. For instance, heteronormativity negatively predicts life satisfaction for lesbians in this sample, but this relationship is not significant for gay men. And disclosure, masculinity, and femininity stood out as the strongest (positive) predictors of life satisfaction for bisexual/between women, whereas RWA and heteronormativity were implicated as potential predictors of lower life satisfaction for bisexual/between men.

Table 9

Summary of Hierarchical Regression Analyses for Variables Predicting Depressive Symptoms Among Lesbians and Gay Men (n = 114)

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Age	-.23	.12	-.16 [†]	-.28	.12	-.20*	-.30	.13	-.21*	-.32	.13	-.22*
SES	-.39	.10	-.34***	-.40	.10	-.34***	-.34	.11	-.29**	-.30	.11	-.25**
RWA				-.02	.21	-.01	-.04	.20	-.02	-.04	.20	-.02
Heteronormativity				.27	.17	.15	.23	.17	.13	.14	.18	.08
Disclosure (Mean)							-.26	.12	-.19*	-.39	.15	-.28*
Heteronormativity × Disclosure										-.28	.18	-.16
<i>R</i> ²		.15			.17			.21			.22	
<i>F</i> for change in <i>R</i> ²		10.12***			1.44			4.37*			2.38	

[†]*p* < .10, **p* < .05, ***p* < .01, ****p* < .001

Table 10

Summary of Hierarchical Regression Analyses for Variables Predicting Depressive Symptoms Among Bisexual/Between Participants (n = 59)

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Age	-.30	.14	-.27*	-.24	.14	-.22 [†]	-.24	.14	-.22 [†]	-.16	.14	-.15
SES	-.32	.14	-.30*	-.30	.14	-.28*	-.38	.13	-.35**	-.32	.13	-.29*
RWA				-.28	.28	-.17	-.34	.26	-.20	-.21	.26	-.12
Heteronormativity				-.04	.23	-.03	-.05	.22	-.04	-.16	.22	-.12
Femininity (PAQ)							-.31	.12	-.29*	-.31	.12	-.28*
Masculinity (PAQ)							-.30	.13	-.27*	-.31	.13	-.28*
Disclosure (Mean)										-.04	.09	-.06
<i>R</i> ²		.22			.25			.41			.44	
<i>F</i> for change in <i>R</i> ²		7.86**			1.15			7.17**			2.53	

Note. A fifth model included an interaction term for disclosure and heteronormativity, but is not reported here because it did not add a significant amount of variance (*R*² change = .03).

[†]*p* < .10, **p* < .05, ***p* < .01

Table 11

Summary of Hierarchical Regression Analyses for Variables Predicting Life Satisfaction Among Lesbians and Gay Men (n = 115)

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Age	-.08	.10	-.07	-.04	.11	.04	-.02	.10	-.02	-.02	.11	-.02
SES	.40	.09	.40***	.37	.09	.38***	.33	.09	.33**	.30	.10	.31**
RWA				-.03	.19	-.02	-.01	.19	-.01	-.10	.17	-.06
Heteronormativity (normative-sexual- behavior)				-.28	.18	-.18	-.26	.17	-.16	-.09	.15	-.06
Disclosure (Mean)							.23	.10	.20*	.31	.13	.26*
Heteronormativity × Disclosure										.17	.15	.12
R^2		.16			.19			.23			.23	
<i>F</i> for change in R^2		10.76***			2.33			4.97*			.49	

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 12

Summary of Hierarchical Regression Analyses for Variables Predicting Life Satisfaction Among Bisexual/Between Participants (n = 58)

Variable	Model 1			Model 2			Model 3			Model 4			Model 5		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Age	.02	.13	.02	.05	.14	.05	-.01	.14	-.01	-.06	.14	-.06	-.04	.13	-.04
SES	.40	.13	.40**	.46	.13	.46**	.42	.13	.42**	.39	.13	.40**	.41	.13	.41**
RWA				.15	.31	.10	-.02	.32	-.01	.12	.32	.08	.14	.31	.09
Heteronormativity (normative-sexual- behavior)				-.37	.25	-.30	-.23	.26	-.18	-.32	.26	-.25	-.54	.27	-.43*
Femininity (PAQ)							.02	.13	.02	.00	.12	.09	.03	.12	.03
Masculinity (PAQ)							.26	.14	.26 [†]	.30	.13	.30*	.24	.13	.23 [†]
Disclosure (Mean)										.16	.09	.23 [†]	.08	.09	.11
Heteronormativity × Disclosure													-.25	.10	-.35*
<i>R</i> ²		.17			.21			.27			.31			.39	
<i>F</i> for change in <i>R</i> ²		5.58**			1.60			1.96			3.28 [†]			6.23*	

[†]*p* < .10, **p* < .05, ***p* < .01

Qualitative Analysis of Survey Comments

Approximately 30% ($n = 141$) of participants who completed the survey made specific comments in the space provided at the end. These comments helped me to understand better the divergent perspectives represented by the survey data, and they also provide useful information to guide future research. In this section, I provide descriptions and examples of six themes that emerged from these data. Responses were coded for multiple themes as needed.

Critique of survey. The most common theme in participants' comments involved critiques of the survey items or of whole measures ($n = 52$, or 37% of those who wrote comments). Most critiques were mild, tentative, or constructive (e.g., "...some questions were really two questions. So my answers might not clearly represent what I was thinking," and "was kinda biased in the initial questions"). However, a small number of comments were somewhat stronger (e.g., "I don't see what good can come out of surveys like this one," and "...overall a survey that brings to mind the garbage in, garbage out principle"). The concerns raised by critiques also varied, including objection to "bias" or "inflammatory language" in the RWA measure; inadequate sensitivity to polyamorous⁹, transgendered, or physically disabled people; and the limitations of forced-choice questions that lacked options to elaborate. For instance, one participant wrote:

Your question about 'current relationship' is too limited. It presumes a relationship with ONLY ONE PERSON, and even at that, you do not define your context or reference to WHAT TYPE of relationship you inquire; e.g. sexual companionship, mentor, parent, spousal/partner. Your questionnaire [sic] is in need of more opportunities for a respondent [sic] to "Explain if you so desire" on each page or after every question.

Compliments and gratitude. In contrast to the critiques noted above, 43 participants (30% of those who wrote comments) expressed praise, thanks, or other positive responses to the survey. These comments ranged from simple expressions of "thanks" to specific praise for the survey design and potential impact

⁹ The word *polyamorous* is used to describe a range of possible configurations of romantic, sexual, or committed relationships involving more than two people (e.g., open marriages, committed relationships involving three or more people).

This study was well constructed! It looks like you added a questionnaire on social desirability bias at the end-- great idea for a study like this!

Hmm... were you intentionally using loaded language in that first section to make us disagree with things that, if worded differently, we would agree with? Because if so... clever!

So wonderful that you are donating to local charities! Way to go!!!

This survey is one of the best ones I have taken to date.

A few participants also indicated specific gratitude or enthusiasm about the subject of the survey (e.g., "I am so happy that research is being developed [sic] to all persons' needs," and "I think it is awesome that you are doing research that includes sexual orientation and gender identity").

Elaboration of attitudes or beliefs. Twenty percent ($n = 29$) of those who wrote comments at the end of the survey used the space to elaborate on or clarify their responses to specific survey items or general issues related to sexual orientation, politics, or religion. Several participants wrote that their positions on political issues were not adequately captured in the survey:

I had a hard time with liberal conservative questions on economic issues. I marked slightly liberal but that doesn't really reflect my views. I feel that there should be massive wealth redistribution but that the state ought to pay a minimal role in this. I also feel that the credit system should be abolished.

Your assumptions underlying many of your questions are faulty. For example, I would describe myself as somewhat liberal on affirmative action and conservative on abortion and unsure on school prayer. But, you have those all lumped together. How will you get valid information if you make bad assumptions? How will you know which of the issues my answer actually applies to?... While I agree that there are problems with our society, I don't necessarily think that the answer is a strong leader who will squash evil. Evil can't be squashed that way... I wanted to write a paragraph for each question to explain your misconception but i [sic] don't have the time (and I don't have the questions in front of me). Of course I'm making some assumptions myself about what you believe on these issues. But I think you need to have some more conversations with people who disagree.

Elaborative comments about sexuality included moral and religious references that expressed varying levels of tolerance for non-heterosexual identities:

I believe there are people who think they are gay/lesbian. But...I also believe it is also a personal choice. I do not judge people according to their sexual orientation. My believe [sic] is to love the sinner not their sin. I believe there are people who are gay/lesbian who love the Lord with all their heart but can't break free from the deception....

... On the one hand, I fervently believe that certain things, such as homosexuality and any sex outside of marriage, are sins against God. On the other hand, I don't believe that I have the right to dictate other people's behavior; I don't tell people what I think about their relationships unless they specifically ask. I don't think that the law should govern that kind of behavior either - it's between them, the other person in the relationship, and God. Also, while I don't think I know anyone who's homosexual, I wouldn't ostracize someone who was; if I cut off all contact with people who commit sins and never speak to them, I wouldn't be able to talk to myself, much less anyone else. We ALL sin, it's just a matter of which ones in particular we're committing.

On the other hand, there were also a few remarks demonstrating tolerance or acceptance of queer or non-hetero-sexualities. Here is one example:

... [The survey] was an eye-opening experience. Even though I identified as a gay man - the transgender/transsexual issue brought up prejudice. Bi-sexual use to as well. Neither do [sic] at this point in my life. I would hope that I would be compassionate toward anyone that is struggling with sexual orientation or gender identity. It takes great courage to break the norm and stand up for what you believe is either a choice or a God given gift. Either way - it is a personal issue. I'm preaching - sorry - thanks - [participant's first name included here]

Still other elaborations of survey content involved vague references to a combination of themes (sexual orientation, politics, social norms). For instance:

I was worried when I initially saw the donation would go to United Way. I do not support the United Way because they support organizations that discriminate such as the Boy Scouts. I was glad that other alternatives were offered: Thank you. I was also glad that the survey recognized bisexuality, as unfortunately many other surveys either assume heterosexuality, or include only homosexuality but not bisexuality. ... Although I am generally a fan of people pursuing their sexual interests, ... I am not willing to say that *all* people should when some people's sexual interests impinge on the freedom or even the lives of others.

... I, in my opinion, think that mankind has a long way to go before we can call ourselves "civilized". People need to take a long hard look at themselves. People need to learn the meaning of tolerance. Some people,

with their religion, and political beliefs, SCARE THE HELL OUT OF ME. They hold ideas that that [sic] could ruin the world.

Sharing personal stories. Some participants elaborated on their experiences, noting that the survey had been enjoyable, thought-provoking, or personally meaningful for them. For instance, a respondent wrote:

Excellent questions, enjoyed participating. I especially enjoyed the narrowing of categories to get a true indication of my feelings and thoughts. I had to think and sense how I felt about things in a unique way. Opened my eyes to my own path.

For some, the survey was personally meaningful because of their own life experiences. For example, after writing about changes in her own sexual identity across time, one participant shared:

...an interesting side note regarding heredity my son... is gay and has been in a committed relationship for 10 years and i [sic] have a second cousin in a committed lesbian relationship... thank you for this survey...

Requesting results. Fifteen respondents (10% of those who responded) indicated that they would like to hear about the results of the survey. Some requested that a summary be provided to the organization that referred them to the website. One participant wrote, “How will we ever know the results?” Another participant asked me to send the results to an e-mail address included in the comment.

Reiterating donation recipient. The frequency of responses clarifying a donation recipient ($n = 24$; 17%) suggest that this section of the survey could have been more clearly organized. Participants wrote comments such as, “Please give \$5.00 to [name of organization],” and “PLease [sic] donate my \$5 to [name of organization]... It was confusing to have to pick who to donate to without their being on the list.” This last example pertains to the referral incentive for organizations; I had told organizations that if their members mentioned where they heard about the survey, I would donate \$5 to them or to the charity of their choice. This donation was in addition to the \$5 per survey given to Michigan-based charitable organizations (participants chose from a list of options at the end of the survey). There appeared to be some confusion about how to make sure the referring organizations were also credited.

Other responses. In addition to the six main themes described above, there were 18 responses that involved other types of information. Many of these participants wrote “good luck” or an equivalent message at the end of their comments. Several participants shared suggestions for future research, including developing a similar study of transgender identities or pursuing studies that address racial diversity within sexual minority populations. Another participant suggested that the researcher spend more time with conservative Christians in order to fully understand their perspectives before doing further research. In contrast, one participant ended with the following comment: “Keep up the good fight!”

CHAPTER IV

DISCUSSION AND CONCLUSIONS

This chapter includes a summary and interpretation of the major findings, a review of major themes, acknowledgment of the limitations of this study, and proposed directions for future research assessing heteronormative attitudes and beliefs.

As noted in Chapter I, there were three major research questions driving this study. The first question focused on gender and sexual identity differences in sexual orientation, heteronormative attitudes and beliefs, and more general personality constructs such as RWA, tolerance of ambiguity, and openness to experience. Predictions involving greater sexual orientation fluidity, tolerance of ambiguity, and openness to experience and lesser RWA and heteronormativity among women as compared to men were generally well supported by the data. Similarly, sexual minorities demonstrated greater sexual fluidity, tolerance of ambiguity, and openness to experience, and lesser RWA and heteronormativity than participants identifying as exclusively heterosexual.

The other two research questions involved relationships among heteronormativity, general personality constructs, and psychological well-being in heterosexuals and sexual minorities. The second research question focused on correlates and consequences of heteronormativity among heterosexuals, and the data strongly supported related hypotheses linking various personality constructs and attitudes to the amount of contact that heterosexuals had with sexual minorities. The third research question inquired about the consequences of heteronormativity for sexual minorities' psychological well-being. Hypotheses suggested that heteronormativity and its correlates would predict lower ratings of psychological well-being for sexual minorities. Some significant findings emerged, implicating normative attitudes about sexuality in more negative mental health outcomes for sexual minorities.

Taken together, these results suggest a conceptual model of heteronormative attitudes and beliefs that integrates relationships between personality, identity, and well-being. Such a model could be quite useful in understanding the ways in which individuals respond to or participate in the maintenance of heteronormativity in broader social contexts. I turn to the task of interpreting the results of this study in the following sections.

Gender Identity, Gender-Role Orientation, and Heteronormativity

Differences in components of sexual orientation by gender. As predicted, sexual minority women demonstrated more sexual orientation fluidity than their male counterparts. This is consistent with a growing literature on sexual fluidity among women (e.g., Baumeister, 2000; Diamond, 2008; Peplau, et al, 1998). However, heterosexual women's reports of fluidity were *no different* from heterosexual men's reports. Given lower heteronormativity scores among women and sexual minorities, and a negative correlation between fluidity and heteronormativity, any of the following might be true: 1) sexual minority women's sexual fluidity leads to the development of less heteronormative attitudes; 2) sexual minority women's lower heteronormativity leads to less rigid interpretations of identity and/or less rigid proscriptions against behavior that conflicts with past sexual identity; or 3) a third variable leads to both lower heteronormativity scores and greater sexual fluidity for sexual minority women. For example, sexual minority women hold marginalized social positions with respect to both gender and sexual orientation. With less to lose, and thus fewer reasons to maintain rigid boundaries for themselves or rigid expectations of others' behaviors, this might lead to both greater sexual orientation fluidity and lower levels of heteronormative attitudes and beliefs. Such a process would imply that social heteronormativity actually places greater restrictions on those with more social power, those who are seen as 'normal' or, as Rich (1980) noted, those who do not question how they came to be attracted to opposite sex partners. Whereas there are greater social sanctions against those who violate heteronormative expectations, I understand Rich's theory of compulsory heterosexuality to mean that *everyone* ultimately suffers from hegemonic social order. Those with more

power must maintain their positions at all costs, and those with less power must work around reduced opportunities and protect themselves from aggression meant to keep them from gaining ‘normal’ status.

Of course, it is not possible to test such hypotheses in the present study, but it would be worthwhile to examine heteronormativity in prospective or longitudinal studies similar to Diamond’s (e.g., 2000, 2006, 2008) to assess for potential causal relationships. In addition, it would be useful to replicate the results of the current study to see if it is only among sexual minorities that women are more sexually fluid than men. Such results would lend further support to a theory of identity consistency as particularly important for those on the more powerful sides of hegemonic social lines.

Differences in gender-role orientation. As noted in the introduction, recent literature (e.g., Finlay & Scheltema, 1999) indicates that *masculinity* and *femininity* might best be thought of as specific gender-linked traits such as *instrumentality* and *expressiveness*. The words masculinity and femininity necessarily conjure binary, essentialized characterizations of males/men and females/women. On the other hand, using descriptive language to represent what was previously conceived of as masculine and feminine characteristics allows us to move beyond observations of simple differences (e.g., women are feminine and men are masculine) to more complex, and arguably more interesting, questions (e.g., what is ‘masculinity’? And why might expressiveness for men be proscribed to a greater degree than instrumentality for women?) Recent literature demonstrates the importance of these more complex questions: although women still tend to be more feminine (i.e., expressive) than men, masculinity (i.e., instrumentality) is often observed to be equivalent for women and men. There may still be negative consequences for women who violate gender norms (e.g., Halberstein, 1999), but the consequences for boy’s and men’s gender transgressions are arguably more virulent (e.g., Katz, et al, 2002; Farquhar & Wasylikiw, 2007).

Data from the present study further support a more complex conceptualization of gender-role orientation in that differences in gender-role orientation cut across gender and sexual identity. For example, whereas heterosexual women’s scores on femininity were higher than heterosexual men’s scores, and there was a trend towards heterosexual men being more traditionally masculine than heterosexual women, there were no gender

differences in self-rated expressions of so-called femininity or masculinity among sexual minorities. This is consistent with sexual minorities' more flexible attitudes about gender (lower scores on gender-as-binary subscale of the HABS); in other words, sexual minorities' less dualistic beliefs about gender roles matched their less gender-bound manifestations of instrumentality and expressiveness. It is also interesting that among heterosexuals, there was only a trend towards greater instrumentality among men, whereas women were significantly more expressive than men. This is consistent with theories about greater social pressure for men to renounce supposedly feminine traits, whereas more instrumental women may reap psychological benefits (Saunders & Kashuback-West, 2006) and are afforded greater opportunities and access to power in some contexts¹⁰.

For heterosexual men, adherence to a more traditional gender-role orientation also differed by social conservatism, such that more socially conservative heterosexual men evidenced higher instrumentality scores and lower expressiveness scores. This was not the case for more socially conservative heterosexual women or sexual minority men, and more socially conservative sexual minority women evidenced a trend towards *lower* expressiveness. Patterns of gender-role conformity among socially conservative heterosexual men may be explained by considering the ways in which being financially privileged, White, heterosexual, and male affords people greater access to social status and power. In turn, those with greater power may perceive themselves as having the most to lose as distinctions between men's and women's roles are blurred. Thus it makes sense that conservative men would hold strongly to their own traditional gender roles in an effort to reinforce the differences between themselves and social 'others.' Duncan, Peterson, and Winter (1997) made a similar point about people with greater power and privilege aggressively maintaining "hegemonic lines" between themselves those less powerful (p. 8).

In sum, the observed differences in sexual identity, gender identity, and gender role expression are consistent with the underlying theory of heteronormativity – that beliefs about gender as binary are a prerequisite for normative beliefs about sexual

¹⁰ Even while I am writing this, Hillary Rodham Clinton's confidence and instrumentality have captured the nation's attention and allowed her to traverse far into a domain previously populated only by men.

behavior and identity. In addition, these results suggest that those with the greater social status and power may be more averse to espousing or accepting identities and behaviors that transgress socially normative expectations. As outlined in Chapter I, this fits with Jackson's (2006) description of the ways in which those within heteronormative boundaries are restricted from violating the norms, whereas those outside the boundaries are ostracized and sanctioned for their violations.

Correlates of Heteronormativity

In addition to demonstrating a negative relationship with sexual orientation fluidity, the HABS and its two subscales correlated negatively with tolerance of ambiguity and openness to experience and positively with RWA. Heteronormativity also correlated positively with social conservatism, and negatively with both tolerance of ambiguity and openness to experience. These findings are consistent with literature on relationships between political orientation, personality variables, and attitudes towards sexual minorities (e.g., Whitley & Ægisdóttir, 2000). Although heteronormativity is highly correlated with RWA, the HABS items focus only on beliefs and attitudes about the natures of gender and sexual identities, not on expectations of authoritative regulation of gender and sexual identities. This distinction allows for the examination of underlying beliefs that may be somewhat independent of overt actions or even political orientation. For example, whereas social conservatives were more likely to hold heteronormative beliefs, there was nonetheless enough variation in heteronormativity among social *liberals* to examine other possible explanations for rigid thinking about gender and sexuality.

I also examined the relationship of social desirability to heteronormativity. Although this relationship was not included in the major hypotheses for this study, it is nevertheless interesting to note that social desirability correlated positively with the normative-sexual-behavior subscale but demonstrated no significant relationship with essentialist and binary beliefs about gender. On the other hand, there is no significant relationship between social desirability and beliefs about gender as binary and biologically determined. One possible explanation for this discrepancy is that people who are especially concerned with how they are perceived socially might be more

susceptible to the social pressures to conform to normative expectations about sexual behavior. Beliefs about gender as binary, on the other hand, might be due to less (or non-) conscious processes, such that people might adhere to the implicit expectations of gender as binary and biologically determined regardless of the degree to which they strive to present themselves as socially appropriate.

Significant differences in relationships between heteronormativity and psychological well-being according to sexual identity suggest that, as theorized, heteronormative attitudes have different ramifications for heterosexuals and sexual minorities. In fact, believing that gender is binary and biologically determined correlated *negatively* with depressive symptoms for heterosexuals. It would be interesting to assess whether heterosexuals who believe strongly in gender as being binary and biologically determined feel a greater sense of comfort and ease about their own location in a gender-stratified social order. In contrast, we might ask whether heterosexuals who question the nature of gender as a binary phenomenon experience disconcerting internal conflicts about their participation in the maintenance of (from their perspective) flawed and arbitrary gender hierarchies.

Attitudinal and Personality Differences by Sexual Minority Status

As expected, heterosexuals were higher in heteronormativity and RWA than sexual minorities, whereas sexual minorities were higher in tolerance of ambiguity and openness to experience. There were only two exceptions when examining differences separately among men and women: sexual minority men were no more tolerant of ambiguity or open to experience than heterosexual men. These exceptions indicate a possible interaction between gender and sexual identity for at least some of the personality and attitudinal variables measured in the present study. Future research might examine interactions between gender and sexual identity in the context of a model of social power; as suggested above, it may be that those with greater social power (Whites, men, heterosexuals) would be especially averse to ambiguity or transgression of norms in themselves and others.

Predicting Heteronormativity Among Heterosexuals

Correlations and regression analyses among heterosexuals indicated that women held less heteronormative beliefs than men, and that heterosexuals with more lesbian and gay friends held significantly less normative beliefs about both gender and sexual behavior. In addition, number of gay and lesbian friends was negatively related to RWA for heterosexuals.

It is difficult to know exactly how to interpret the relationship between sexual minority contact and lower heteronormativity. For example, it could be that only those who are more tolerant of difference and less concerned about the authority of social norms would seek out and maintain contact with sexual minorities. On the other hand, recent literature suggests that contact with lesbians, gays, and bisexuals leads directly to greater acceptance of sexual minorities, at least among undergraduate college students (Kardia, 1996). Another possibility is that certain underlying personality variables lead to more contact with sexual minorities as well as greater acceptance of non-heterosexual orientations. This explanation is supported by study findings that heterosexuals with greater tolerance of ambiguity and openness to experience have more gay and lesbian friends as well as less heteronormative attitudes and beliefs.

Predicting Mental Health Outcomes Among Sexual Minorities

I had originally theorized that personality characteristics such as RWA, tolerance of ambiguity, and openness to experience would predict both heteronormativity and psychological well-being, and that heteronormativity scores would independently predict psychological well-being for sexual minorities. The results strongly support the first prediction (that personality characteristics would predict heteronormativity). However, the remaining hypotheses were only partially supported, with different results according to gender and sexual identity (bisexual/between men and women, exclusively lesbian, exclusively gay).

For both gay men and lesbians, greater mean disclosure of sexual identity to important people in their lives (family, friends, and coworkers) predicted fewer symptoms of depression and greater life satisfaction. In addition, heteronormativity negatively predicted life satisfaction, but only for lesbians. For bisexual/between

participants, only the masculinity/ instrumentality and femininity/expressiveness scores predicted fewer depressive symptoms, and these variables most strongly predicted depressive symptoms among bisexual/between *women*. Spence and Helmreich (1979) would classify those who score high on both masculinity and femininity as or androgynous. It is interesting that androgyny (i.e., scoring high on both masculinity and femininity) demonstrated a negative connection to depressive symptoms only among bisexual/between participants (to be sure, I checked the same regression models for exclusively lesbian/gay and heterosexual participants and found that gender-role orientation had no significant relationship with depression or life satisfaction for either of these sub-groups). Finally, RWA and heteronormativity predicted lower life satisfaction for bisexual/between men, whereas bisexual/between women's identity disclosure, instrumentality, and expressiveness strongly predicted greater life satisfaction for this subgroup.

Although I did not originally hypothesize different predictors of psychological well-being for lesbian, gay and bisexual/between participants, the results do make sense given the unique challenges faced by members of these identity groups. Bisexuals experience additional stigmatization (e.g., dismissal of bisexuality as a valid or stable identity) and are marginalized among heterosexuals as well as gays and lesbians. In addition, being female leads to less access to social and institutional power, which might result in greater reliance on community support. In this context, where it is difficult to find communities that tolerate (let alone welcome) bisexuality, it makes sense that neither lower heteronormativity scores nor greater identity disclosure alone would predict psychological well-being for bisexual/between women. Instead, bisexual/between women who are satisfied with their lives appear to draw on the interactions of multiple buffers and strengths (both intra- and interpersonal) in order to reach this higher degree of life satisfaction. On the other hand, lesbians, who must deal with heteronormative social pressures but can also more readily find community-based support, appear to require fewer buffers or strengths in order to achieve greater psychological well-being.

Reviewing generalizability. When considering the contributions of stigma and marginalization to mental health, it is important to remember the particular demographics of this sample. Although the bisexual/between participants might have experienced a

greater degree of ostracism and identity-related stress than lesbians or gay men, intersections with other marginalized or disenfranchised identity positions are *not* represented in this sample. For instance, being lesbian, gay, or bisexual in addition to being a racial or ethnic minority, being transgendered, being lower in socioeconomic status, and/or having a physical disability or severe/chronic illness would produce stresses and challenges unique to each intersection. Given preliminary evidence for unique predictors of mental health for people identifying as bisexual/between, it would be useful to pursue research in order to identify risk and protective factors specific to particular intersections of identities.

Thematic Summary of Findings

The Heteronormative Attitudes and Beliefs Scale (HABS). The present study replicated previous work indicating high internal reliability and convergent validity for the HABS. The overall measure and its two sub-scales, gender-as-binary and normative-sexual-behavior, are extremely highly correlated with RWA and negatively correlated with tolerance of ambiguity and openness to experience. Although these high correlations suggest substantial conceptual overlap between RWA and heteronormativity, there is also evidence for fine distinctions to be made between these constructs. For example, RWA and heteronormativity are more highly correlated among heterosexuals than sexual minorities, suggesting that unique facets of RWA and heteronormativity are experienced and expressed by sexual minorities. Further research involving comparisons between sub-scales of RWA and heteronormativity for sexual identity groups is thus warranted.

Sexual minorities and psychological well-being. Predictors of psychological well-being appear to vary somewhat by sexual identity. Whereas identity disclosure, or “outness” predicted both fewer depressive symptoms and greater life satisfaction among lesbians and gay men, a combination of variables, including gender-role orientation and less heteronormative attitudes predicted positive outcomes for bisexual/between participants. These divergent findings inspire questions about the effects of marginalization on mental health outcomes for those who do not fit neatly into pre-defined sexual identity categories, and further research is warranted in this domain.

Sexual orientation, gender, and personality. The results of the present study suggest that attitudes and beliefs about what constitutes normal sexuality are strongly related to a combination of personality, identity, and social context. For example, people who are generally more authoritarian, less tolerant of ambiguity, and less open to different experiences in life also appear to have more rigid expectations and beliefs about gender and sexuality; however, these personality characteristics are most strongly related to heteronormative attitudes for heterosexuals. A second example is that being a sexual minority appears to lead to greater sexual orientation fluidity and less rigid views about gender and sexuality. Further, it appears that being a woman *and* a sexual minority leads to even greater fluidity in sexual orientation.

On the surface, we might interpret such group differences as being caused by some essential or inherent quality of individuals belonging to these groups. But an arguably more interesting next step is to ask why and how such discrepancies have come to exist. As outlined above, I propose that the motivation among those with the most power to maintain their power and privilege should be strongly considered as a causal factor connecting hegemonic group membership and heteronormative attitudes. Although beyond the scope of the data presented here, we should also consider how, as Kitzinger (2005) explained, heteronormativity is socially produced and perpetuated. A particular kind of heterosexuality is unwittingly reproduced and reinforced by forms that require an announcement of relationship status (married, separated, divorced, etc.), by organizations that grant health care to employees' spouses, by school forms that request information about mothers and fathers, and even by casual conversations that involve information about significant others and families.

Some argue, rightfully so, that granting marital status to same-sex couples will greatly reduce prejudice against sexual minorities. However, we should think carefully about the ways in which heteronormativity and hegemony operate so that social gains for same-sex couples do not simply shift the line of normality, thus allowing married gays and lesbians into the hegemony of 'normal' and necessarily creating new out-groups of marginalized 'others.' The limitations of heteronormativity might be merely replaced by another kind of normativity if we do not carefully consider the deeper meaning of theoretical critiques of compulsory heterosexuality (e.g., Jackson, 2006; Rich, 1980).

Such theories could, and should, be adapted to critique new hegemonies that ostracize those who choose not to marry, or those whose family structures differ from the traditional ‘nuclear family.’

All of these theoretical implications lead back to important practical applications: the importance of identity, marginalization, stigma, access to community support, and outness should all be considered as possible contributors to mental health outcomes in sexual minority populations.

Psychological heteronormativity. The overall results of this study suggest that heteronormative attitudes and beliefs are highly relevant to understanding certain aspects of personality, the consequences of contact between heterosexuals and sexual minorities, and overall mental health for both heterosexuals and at least some sexual minority sub-groups. It is my hope that future research drawing from similar demographics will replicate the results of the present study, and that investigations based on different demographic parameters will lead to more elaborated conceptual models of heteronormativity and its correlates. For example, it would be useful to examine relationships among heteronormativity, RWA, and social power. We might ask, are RWA and heteronormativity driven by a fear of losing power among those inhabiting hegemonic social positions? If so, what purposes do RWA and heteronormativity serve among those with less power? Longitudinal research would best facilitate the investigation of such cause-effect questions.

Limitations, Future Directions, and Concluding Thoughts

Demographic differences by sexual identity: considering generalizability. Several demographic differences emerged for sexual minorities as compared to participants identifying as exclusively heterosexual. Specifically, sexual minorities reported lower average levels of education, were less likely to be employed full-time, reported lower average household incomes, and indicated less prosperous current financial situations than heterosexuals. Controlling for SES in all comparative analyses helped me to know if differences could be clearly attributed to sexual minority status and not just to these SES-related confounds. However, this finding prompts a question about why sexual

minorities in this sample differed from heterosexuals on SES-related variables, and whether such differences might be an important contributor to divergent life experiences.

A recent nationally representative poll of sexual minorities to U.S. census data indicates that sexual minorities are equivalent to the general population with respect to gender, race, and ethnicity, but that sexual minorities are on average younger ($M = 40.6$) than heterosexuals ($M = 45.9$), are more highly educated, and have considerably lower household incomes (Egan, Edelman, & Sherrill, 2008, pp. 7-8). In the present study, however, sexual minorities and heterosexuals were roughly equivalent in age, heterosexuals reported higher levels of education and income than sexual minorities, and a greater proportion of sexual minorities were men as compared to the heterosexual subgroup. In sum, the only two demographic findings consistent with the poll comparing U.S. sexual minorities and heterosexuals were 1) equivalent percentages of racial/ethnic minorities among heterosexuals and sexual minorities and 2) lower household incomes for sexual minorities as compared to heterosexuals. Thus, it was particularly important to control for differences in age and education when running analyses for the current study, and to replicate analyses based on the overall sample separately for women and men. These corrections and post-hoc analyses allow for better generalizability of results to other sexual minorities in the U.S.

A difference between this sample and national demographics that could not be addressed in the analyses is the disproportionate percentage of White participants. Nationally, approximately 69% of the general population (and 69% of sexual minorities) reportedly identify as White or Caucasian, with the remaining 31% identifying as Black, Hispanic, Biracial, or “other” (Egan, Edelman, & Sherrill, 2008, p. 7). Given that the present study’s sample was predominately White or Caucasian (93%) it was not possible to conduct separate analyses for racial or ethnic minorities; thus the overall results may only be generalized to White/Caucasian sexual minorities in the U.S.

Further, the very small number of transgender participants ($n = 4$) meant that I could not conduct analyses to determine whether any of the observed effects were different for this group. Regrettably, this study cannot speak to relationships between gender-role orientation, personality characteristics, heteronormative attitudes, and mental health outcomes for transgendered people. As suggested by one participant, it would be

useful to develop a parallel study focusing on transgender individuals' attitudes, experiences, and psychological well-being.

Learning from qualitative data. As noted above, participants' qualitative responses at the end of the survey provide important contextual information for this study. Because I had specifically targeted socially conservative groups in the hopes of balancing political orientation across the sample, I was not surprised to encounter implied and explicit critiques of the items about sexuality, politics, and authoritarianism. Although I do not anticipate addressing all of these critiques, I will likely make some adjustments in future research. For example, I would like to eliminate problematic, "double-barreled" items – those that contain more than one question but require a single answer or rating. In response to other critiques, I will also provide more opportunities for qualitative responses throughout the survey, and I will aim towards language that is optimally inclusive of polyamorous, transgendered, and other marginalized groups. I found it humbling to be faced with my own normative processes when reading feedback from participants who felt somewhat overlooked or excluded while taking the survey.

Comments that focused on elaborations of attitudes about sexuality or political issues will also be useful as I think about future directions for research on heteronormativity. For example, several participants indicated that they were not able to represent their "love the sinner; hate the sin" perspectives of homosexuality in response to survey items. It would be interesting to know more about whether such individuals' heteronormative attitudes are equivalent to attitudes of those who are more overtly hostile towards sexual minorities.

Summary of limitations. As noted above, the results of the current study may be limited in generalizability to White/Caucasian, college-educated, financially well-off populations. Although the sample was sufficiently diverse in its distribution of most of the psychological and sexuality variables, it was lacking in particular demographics, including people of color as well as working class and transgendered individuals. Further, analyses in this study focused primarily on a single aspect of orientation: current identity label. Even though the various domains of sexual orientation in the current study were extremely highly correlated with one another ($\alpha = .97$), a careful investigation of cases in which identity, behavior, and attraction did *not* cohere could provide useful

information to guide future research. This might allow for preliminary assessments of how heteronormativity operates when identity categories are destabilized, inconsistent, or fluid. In addition, such efforts would facilitate greater interchange between the interpretation of results and the social constructionist theories described in the introduction.

In short, the study adequately measured normative attitudes and beliefs in a sample that may be most representative of somewhat privileged sectors of U.S. society. This has been a highly useful endeavor, for groups with power contribute in important ways to the maintenance of social norms. However, it is also important to know more about how heteronormativity relates to outcomes for those who are more marginalized, or for those who dwell at the intersections of multiple oppressions. Future research should balance recruitment among groups with a range of access to social capital and influence in order to pursue this goal.

Future directions in studies of heteronormativity. In addition to pursuing a better understanding of heteronormativity and the statistical properties of the HABS, future research could examine the potential causes and consequences of heteronormative attitudes and beliefs, and investigate the interrelations among psychological, social, and institutional contributors and effects of heteronormativity. Also, the current study's findings of differences in mental health outcomes by sexual identity call for further exploration in both qualitative and quantitative research. Potential areas of psychological scholarship on heteronormativity include:

1. Replication of current findings in populations with different demographics.
2. Comparisons on heteronormativity among clinical and non-clinical samples of sexual minorities. Clinical samples could be drawn from psychiatric as well as medical settings.
3. Assessment of mental health outcomes for sexual minorities whose family, friends, or coworkers exhibit more heteronormative attitudes and beliefs.
4. Examination of different facets of RWA as they relate to heteronormativity and homophobia.
5. Qualitative interviews with sexual minorities scoring relatively higher and lower on the HABS in order to assess for thematic differences in discussions about sexual identity, relationships, community, and overall health and well-being

6. The use of additional measures of psychological well-being in order to identify positive outcomes for sexual minorities and heterosexuals who are lower in heteronormativity.

The HABS could also be used to assess curricular or organizational interventions aimed at increasing acceptance of sexual minorities. Before being used in such a setting, basic test-retest reliabilities of the measure should be confirmed. It would also be worthwhile to examine the stability of heteronormative attitudes and beliefs across time, and to identify any potential antecedents of changes in heteronormativity.

Concluding thoughts. As suggested above, the potential problems and consequences of heteronormative attitudes are many, for normative expectations of gender and sexual experiences likely affect all those who adhere to or transgress such norms. Development of the HABS was a preliminary step towards a better understanding of the significance of heteronormativity in our daily lives. In the context of Rich's (1980) theories about the unquestioned and compulsory nature of heterosexuality, the HABS allows us to make the invisible visible, and to begin to question those assumptions that maintain the 'normalcy' and resulting compulsory nature of heterosexuality. In other words, the very measurement of heteronormative attitudes and beliefs undermines their status as unquestioned social norms. In striving to better understand how heteronormativity operates across social and intrapsychic domains, we may yet, as Yep (2003) proposed, be able to challenge the boundaries of (hetero)sexuality – to undermine some of the ways in which heterosexuality is created and maintained, to destabilize some of the ways in which gender hierarchies and social institutions and practices uphold heterosexuality, and to understand sexuality as only one layer in our complex and intersecting identities.

APPENDIX A

SURVEY

PsychData Homepage

The screenshot shows the PsychData homepage with the following elements:

- Header:** PsychData logo with the tagline "CONFIDENCE IN RESEARCH".
- Navigation:** A sidebar menu with links for Home, About Us, Testimonials, Features, Purchase, Library, Support, and Contact Us.
- Sign In:** A section with "Sign In" and "Create Account" links.
- Success Message:** "You have successfully signed out."
- Survey Creation:** A prompt to "Create your online surveys with confidence and ease." followed by a description of IRB-preferred services.
- Go to Survey #:** An input field with a "go" button.
- Free Survey with Account:** A section with a "First Name" input field and a "go" button.
- Library Articles:** A list of links including Departmental Contracts, Save and Return Surveys, IRB Application Tips, Question Logic, Random Stimulus Assignment, Frequently Asked Questions, Compare Us, and Question Types.
- Testimonials:** A box containing a photo of a man and a testimonial quote: "Members of my department were so persuaded by the service, that we purchased a site license for PsychData." with a "(more...)" link.
- Security:** Three "VeriSign Secured" logos with "VERIFY" text.
- Footer:** Copyright © 2001-2008 PsychData®, LLC. All rights reserved.

Participants who received flyers about the study typed the survey number in the dialog box near the top of the screen.

Save and Return Login Feature



Thursday, April 24, 2008

Survey # 122365
[Help?](#)

Please select the appropriate choice:

New Participants - This is the first time you are answering questions to this survey. This survey is configured to let you to save your work and continue later. To save your progress, be sure that you have completely finished the page you are on and then click on the "Save and Exit" button on the bottom of the page. [Click here to print these instructions](#) .

Create Nickname (5 or more characters)
Create Password (5 to 10 characters)

Returning Participants - Welcome back! You will begin where you previously left off.

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Participants created “nicknames” and passwords so that they could save and return to finish the survey at a later time.

Opening Page of Survey

Social and Political Opinions, Beliefs and Experiences Study

Welcome to the Social and Political Opinions, Beliefs and Experiences Study!

This project is a study of people's beliefs and experiences related to social and political issues, including sexuality. We are interested in learning more about how people's attitudes, opinions, beliefs, and experiences relate to each other.

The survey will take about 20-30 minutes. All surveys will be stored anonymously on a secure web server. In addition, no individual responses or surveys will be identified in any reports on this study. The survey will be administered by PsychData, a company that protects the security and anonymity of responses. Please see the following website if you would like more information about PsychData:
<http://psychdata.com/content/security.asp>

Your participation is completely voluntary and anonymous. We will not ask for your name at any time. You are free to participate or not and to skip any questions you would rather not answer, and you may decide to leave the study at any time without penalty or loss of benefits to which you may otherwise be entitled. In appreciation of your time and effort, we will donate \$5.00 for each completed survey to a Michigan-based charitable organization. You will have the opportunity to select an organization at the end of the survey.

There are no known risks or direct benefits related to your participation in this survey. Although you may not receive direct benefit from your participation, others may ultimately benefit from the knowledge obtained in this study.

Should you have any questions or concerns about your participation, please feel free to contact the study coordinator, Jan Habarth at jhabarth@umich.edu. You may also reach Jan at (734) 763-0063.

Should you have questions regarding your rights as a research participant, please contact the Institutional Review Board, 540 E. Liberty Street, Suite 202, Ann Arbor, MI 48104-2210, (734) 936-0933, email: irbhsbs@umich.edu.

Thank you for participating! Please feel free to refer others to the survey website:

<https://www.psychdata.com/s.asp?SID=121155>

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Survey Items

Social and Political Opinions, Beliefs, and Experiences Study

Social & Political Issues

Below are some statements representing different attitudes and beliefs. You will probably find that you agree with some of the statements, and disagree with others, to varying extents. Please indicate your reaction to each statement by choosing the appropriate phrase beneath each statement.

1) Our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways and sinfulness that are ruining us. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
2) Gays and lesbians are just as healthy and moral as anybody else. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
3) It's always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubts in people's minds. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
4) Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
5) The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
6) There is absolutely nothing wrong with nudist camps. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
7) Our country needs free thinkers who will have the courage to defy traditional ways, even if this upsets many people. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
8) Our country will be destroyed someday if we do not smash the perversions eating away at our moral fiber and traditional beliefs. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
9) Everyone should have their own lifestyle, religious beliefs, and sexual preferences, even if it makes them different from everyone else. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
10) The "old-fashioned ways" and "old-fashioned values" still show the best way of life. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
11) You have to admire those who challenged the law and the majority's view by protesting for abortion rights, for animal rights, or to abolish school prayer. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
12) What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
13) Some of the best people in our country are those who are challenging our government, criticizing religion, and ignoring the "normal way" things are supposed to be done. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree

14) God's laws about abortion, pornography, and marriage must be strictly followed before it is too late, and those who break them must be strongly punished. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
15) There are many radical, immoral people in our country today, who are trying to ruin it for their godless purposes, whom the authorities should put out of action. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree

16) A "woman's place" should be wherever she wants to be. The days when women are submissive to their husbands and social conventions belong strictly in the past. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
17) Our country will be great if we honor the ways of our forefathers, do what the authorities tell us to do, and get rid of the "rotten apples" who are ruining everything. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
18) There is no "ONE right way" to live life; everybody has to create their own way. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
19) Homosexuals and feminists should be praised for being brave enough to defy "traditional family values." <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
20) This country would work a lot better if certain groups of troublemakers would just shut up and accept their group's traditional place in society. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree

10% complete!
Part 1 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

21) A person who leads an even, regular life in which few surprises or unexpected happenings arise really has a lot to be grateful for. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
22) In the long run it is possible to get more done by tackling small, simple problems rather than large and complicated ones. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
23) People who insist upon a yes or no answer just don't know how complicated things really are. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
24) There is really no such thing as a problem that can't be solved. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
25) The sooner we all acquire similar values and ideals the better. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
26) Many of our most important decisions are based upon insufficient information. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
27) Teachers or supervisors who hand out vague assignments give a chance for one to show initiative and originality. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
28) I would like to live in a foreign country for a while. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree

29) Often the most interesting and stimulating people are those who don't mind being different and original. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
30) It is more fun to tackle a complicated problem than to solve a simple one. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
31) An expert who doesn't come up with a definite answer probably doesn't know too much. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
32) What we are used to is always preferable to what is unfamiliar. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
33) People who fit their lives to a schedule probably miss most of the joy of living. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
34) A good teacher is one who makes you wonder about your way of looking at things. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
35) A good job is one where what is to be done and how it is to be done are always clear. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
36) I like parties where I know most of the people more than ones where all or most of the people are complete strangers. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree

20% complete!
Part 2 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

About You

The items below inquire about what kind of a person you think you are. Each item consists of a pair of characteristics, with the letters A-E in between. Each pair describes contradictory characteristics – that is, you cannot be both at the same time, such as very artistic and not at all artistic.

The letters form a scale between the two extremes. You are to choose a letter which describes where you fall on the scale. For example, if you think you have no artistic ability, you would choose A; if you think you are pretty good, you might choose D; if you are only medium, you might choose C; and so forth.

1) very conventional <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very unconventional

2) not at all emotional <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very emotional

3) feelings not easily hurt <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E feelings easily hurt

4) not at all competitive <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very competitive

5) **feels very inferior** A B C D E **feels very superior**

6) **not at all understanding of others** A B C D E **very understanding of others**

7) **very unintellectual** A B C D E **very intellectual**

8) **gives up very easily** A B C D E **never gives up easily**

9) **very nonconforming** A B C D E **very conforming**

10) **not at all kind** A B C D E **very kind**

11) **not at all able to devote self completely to others** A B C D E **able to devote self completely to others**

12) **very submissive** A B C D E **very dominant**

13) **can make decisions easily** A B C D E **has difficulty making decisions**

14) **indifferent to others' approval** A B C D E **highly needful of others' approval**

15)
not at all complex <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very complex

30% complete!

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

Choose a letter which describes where *you* fall on the scale. For example, if you think you have no artistic ability, you would choose A; if you think you are pretty good, you might choose D; if you are only medium, you might choose C; and so forth.

16)
goes to pieces under pressure <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E stands up well under pressure

17)
not at all aware of others' feelings <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very aware of others' feelings

18)
never cries <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E cries very easily

19)
not at all self-confident <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very self-confident

20)
not at all independent <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very independent

21)
very unreflective <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very reflective

22)
not at all philosophical <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E very philosophical

23)
very passive A B C D E very active

24)
not at all aggressive A B C D E very aggressive

25)
very little need for security A B C D E very strong need for security

26)
very cold in relations with others A B C D E very warm in relations with others

27)
not at all excitable in a major crisis A B C D E very excitable in a major crisis

28)
not at all helpful to others A B C D E very helpful to others

29)
very home oriented A B C D E very worldly

30)
very rough A B C D E very gentle

40% complete!
Part 3 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

Views about Issues

How would you describe your political position on social issues (e.g., affirmative action, school prayer, abortion)?

- extremely liberal
- liberal
- slightly liberal
- moderate: middle of the road
- slightly conservative
- conservative
- extremely conservative
- don't know
- haven't thought about it

If you had to choose, would you consider yourself a liberal or a conservative with respect to social issues?

- liberal
- conservative

How would you describe your political position on economic or financial issues (e.g., taxes, governmental regulation of businesses)?

- extremely liberal
- liberal
- slightly liberal
- moderate: middle of the road
- slightly conservative
- conservative
- extremely conservative
- don't know
- haven't thought about it

If you had to choose, would you consider yourself a liberal or a conservative with respect to economic issues?

- liberal
- conservative

45% complete!

Part 4 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

People in Your Life

1) Please think about your friends from the past two years. Approximately how many of your friends are:

	none	1-2	3-5	6-10	more than 10
straight women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
straight men	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gay men	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lesbians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bisexual women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bisexual men	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transgendered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
people whose sexual orientation is unknown to you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2) NOT including the friends you noted above, approximately how many of your acquaintances from the past two years are:

	none	1-2	3-5	6-10	more than 10
straight women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
straight men	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gay men	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lesbians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bisexual women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bisexual men	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
transgendered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
people whose sexual orientation is unknown to you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3) At what age do you think you first realized that you knew a gay, lesbian, or bisexual person?

50% complete!
Part 5 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

About Sexuality

1) What label(s) would you use to describe your sexual orientation or identity DURING THE PAST YEAR?

2) What label(s) would you have used to describe your sexual orientation or identity FROM AGE 18 TO ONE YEAR AGO?

3) At what age did you come to think of yourself as having a sexual orientation?

4) At what age did you first tell another person about your sexual orientation? [OR if you have never told another person about your sexual orientation, please describe why not.]

(1000 characters remaining)

5) How would you rate your sexual orientation or identity DURING THE PAST YEAR on the following scale?
<input type="radio"/> exclusively gay or lesbian
<input type="radio"/> mostly gay or lesbian
<input type="radio"/> somewhat more gay/lesbian than heterosexual
<input type="radio"/> bisexual
<input type="radio"/> somewhat more heterosexual than gay/lesbian
<input type="radio"/> mostly heterosexual
<input type="radio"/> exclusively heterosexual

6) How would you rate your sexual orientation(s) or identity FROM AGE 18 TO ONE YEAR AGO on the following scale?
<input type="radio"/> exclusively gay or lesbian
<input type="radio"/> mostly gay or lesbian
<input type="radio"/> somewhat more gay/lesbian than heterosexual
<input type="radio"/> bisexual
<input type="radio"/> somewhat more heterosexual than gay/lesbian
<input type="radio"/> mostly heterosexual
<input type="radio"/> exclusively heterosexual

7) How would you rate your sexual attractions DURING THE PAST YEAR on the following scale?
<input type="radio"/> exclusively attracted to women
<input type="radio"/> mostly attracted to women
<input type="radio"/> somewhat more attracted to women than to men
<input type="radio"/> attracted equally to women and men
<input type="radio"/> somewhat more attracted to men than to women
<input type="radio"/> mostly attracted to men
<input type="radio"/> exclusively attracted to men

8) How would you rate your sexual attractions FROM AGE 18 TO ONE YEAR AGO on the following scale?
<input type="radio"/> exclusively attracted to women
<input type="radio"/> mostly attracted to women
<input type="radio"/> somewhat more attracted to women than to men
<input type="radio"/> attracted equally to women and men
<input type="radio"/> somewhat more attracted to men than to women
<input type="radio"/> mostly attracted to men
<input type="radio"/> exclusively attracted to men

9) How would you rate your sexual fantasies DURING THE PAST YEAR on the following scale?
<input type="radio"/> exclusively fantasize about women
<input type="radio"/> mostly fantasize about women
<input type="radio"/> fantasize somewhat more about women than about men
<input type="radio"/> fantasize equally about women and men
<input type="radio"/> fantasize somewhat more about men than about women
<input type="radio"/> mostly fantasize about men
<input type="radio"/> exclusively fantasize about men

10) How would you rate your sexual fantasies FROM AGE 18 TO ONE YEAR AGO on the following scale?
<input type="radio"/> exclusively fantasized about women
<input type="radio"/> mostly fantasized about women
<input type="radio"/> fantasized somewhat more about women than about men
<input type="radio"/> fantasized equally about women and men
<input type="radio"/> fantasized somewhat more about men than about women
<input type="radio"/> mostly fantasized about men
<input type="radio"/> exclusively fantasized about men

11) Within the past year, have you been in any of the following types of relationships? Please check all that apply.

- in a primary relationship with a woman
- dating women casually
- single
- dating both women and men
- dating men casually
- in a primary relationship with a man
- Other (Please specify)

12) In the PAST (from age 18 to 1 year ago), were you ever in any of the following types of relationships? Please check all that apply.

- in a primary relationship with a woman
- dating women casually
- single
- dating both women and men
- dating men casually
- in a primary relationship with a man
- Other (Please specify)

<p>13) How much of your CURRENT sexual behavior (within the past year) is with women vs. men?</p> <p><input type="radio"/> exclusively sexually active with women</p> <p><input type="radio"/> mostly sexually active with women</p> <p><input type="radio"/> more sexually active with women than with men</p> <p><input type="radio"/> sexually active equally with women and men</p> <p><input type="radio"/> more sexually active with men than with women</p> <p><input type="radio"/> mostly sexually active with men</p> <p><input type="radio"/> exclusively sexually active with men</p> <p><input type="radio"/> not sexually active</p>
<p>14) From age 18 to 1 year ago, how much of your sexual behavior has been with women vs. men?</p> <p><input type="radio"/> exclusively sexually active with women</p> <p><input type="radio"/> mostly sexually active with women</p> <p><input type="radio"/> more sexually active with women than with men</p> <p><input type="radio"/> sexually active equally with women and men</p> <p><input type="radio"/> more sexually active with men than with women</p> <p><input type="radio"/> mostly sexually active with men</p> <p><input type="radio"/> exclusively sexually active with men</p> <p><input type="radio"/> not sexually active</p>

- 15) Throughout my life, my sexual orientation has
- always been the same
 - mostly been the same
 - somewhat been the same
 - somewhat changed
 - often changed
 - very often changed

<p>16) How many of your family members know your sexual orientation?</p> <p><input type="radio"/> all <input type="radio"/> most <input type="radio"/> some <input type="radio"/> few <input type="radio"/> none</p>

<p>17) How many of your friends know your sexual orientation?</p> <p><input type="radio"/> all <input type="radio"/> most <input type="radio"/> some <input type="radio"/> few <input type="radio"/> none</p>

<p>18) How many of your coworkers know your sexual orientation?</p> <p><input type="radio"/> all <input type="radio"/> most <input type="radio"/> some <input type="radio"/> few <input type="radio"/> none</p>

<p>19) It is important to me that straight people I know are aware of my sexual orientation</p> <p><input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree</p>

<p>20) Are you worried, concerned, or afraid that people will think that you are lesbian, gay, bisexual, or transgender?</p> <p><input type="radio"/> extremely worried <input type="radio"/> quite worried <input type="radio"/> somewhat worried <input type="radio"/> slightly worried <input type="radio"/> not at all worried</p>

21) Are you worried, concerned, or afraid that people will think that you are straight or heterosexual? <input type="radio"/> extremely worried <input type="radio"/> quite worried <input type="radio"/> somewhat worried <input type="radio"/> slightly worried <input type="radio"/> not at all worried

60% complete!
Part 6 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

Some people say that bisexuality is not real, but instead is a phase or a label people use when they're not sure about who they are. Other people say that bisexuality is a valid way of defining oneself. What do you think? Please check the statement that most closely matches what you believe.

- Bisexuality is definitely not a real or valid way of defining one's sexuality.
- Bisexuality is probably not a real or valid way of defining one's sexuality.
- I'm not sure.
- Bisexuality is probably a real and valid way of defining one's sexuality.
- Bisexuality is definitely a real and valid way of defining one's sexuality.

Some people believe that sexual orientation is something that can change over the span of one's life, and others think that it is something that always remains the same. What do you think about this? Please choose the answer that best matches your beliefs about the following statements:

1) A person's sexual orientation can change over time. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
2) A person who was previously heterosexual might be bisexual or homosexual at a later point in life. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
3) A person who was previously homosexual might be bisexual or heterosexual at a later point in life. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
4) A person's sexual behavior can change, but sexual orientation always stays the same. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
5) A person who was previously sexually active only with women might at a later point in life become sexually active with a man. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
6) A person who was previously sexually active only with men might at a later point in life become sexually active with a woman. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree

Below are more statements representing different attitudes and beliefs. You will probably find that you agree with some of the statements, and disagree with others, to varying extents. Please indicate your reaction to each statement by circling the appropriate phrase beneath each statement.

1) In healthy intimate relationships, women may sometimes take on stereotypical 'male' roles, and men may sometimes take on stereotypical 'female' roles. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
2) In intimate relationships, women and men take on roles according to gender because that's really the best way to have a successful relationship. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree

3) There are only two sexes: male and female. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
4) People should partner with whomever they choose, regardless of sex or gender. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
5) Gender is the same thing as sex. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
6) Femininity and masculinity are determined by biological factors, such as genes and hormones, before birth. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
7) All people are either male or female. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
8) Things go better in intimate relationships if people act according to what is traditionally expected of their gender. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
9) Gender is a complicated issue, and it doesn't always match up with biological sex. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
10) Its perfectly okay for people to have intimate relationships with people of the same sex. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
11) People who say that there are only two legitimate genders are mistaken. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
12) Gender is something we learn from society. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
13) There are particular ways that men should act and particular ways that women should act in relationships. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
14) The best way to raise a child is to have a mother and a father raise the child together. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
15) Sex is complex; in fact, there might even be more than 2 sexes. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree
16) Women and men need not fall into stereotypical gender roles when in an intimate relationship. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> slightly disagree <input type="radio"/> exactly neutral <input type="radio"/> slightly agree <input type="radio"/> agree <input type="radio"/> strongly agree

70% complete!

Part 7 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

Everyday Feelings & Actions

Below is a list of the ways you might have felt or behaved recently. Please indicate how often you have felt this way during the past week.

During the past week:

1) I was bothered by things that usually don't bother me. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
2) I did not feel like eating; my appetite was poor. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
3) I felt that I could not shake off the blues even with help from my family or friends. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
4) I felt that I was just as good as other people. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
5) I had trouble keeping my mind on what I was doing. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
6) I felt depressed. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
7) I felt that everything I did was an effort. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
8) I felt hopeful about the future. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
9) I thought my life had been a failure. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
10) I felt fearful. <input type="radio"/> rarely or none of the time (less than 1 day) <input type="radio"/> some or a little of the time (1-2 days) <input type="radio"/> occasionally or a moderate amount of the time (3-4 days) <input type="radio"/> most or all of the time (5-7 days)
<input type="radio"/> most or all of the time (5-7 days)

<p>11) My sleep was restless.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>12) I was happy.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>13) I talked less than usual.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>14) I felt lonely.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>15) People were unfriendly.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>16) I enjoyed life.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>17) I had crying spells.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>18) I felt sad.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>19) I felt that people dislike me.</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>
<p>20) I could not get "going."</p> <p><input type="radio"/> rarely or none of the time (less than 1 day)</p> <p><input type="radio"/> some or a little of the time (1-2 days)</p> <p><input type="radio"/> occasionally or a moderate amount of the time (3-4 days)</p> <p><input type="radio"/> most or all of the time (5-7 days)</p>

80% complete!
Part 8 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

Your Life as a Whole

Below is a list of the ways you might think about your life. You will probably find that you agree with some of the statements, and disagree with others, to varying extents. Please indicate your reaction to each statement by circling the appropriate phrase beneath each statement.

1) In most ways my life is close to my ideal. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> neither agree nor disagree <input type="radio"/> agree <input type="radio"/> strongly agree
2) The conditions of my life are excellent. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> neither agree nor disagree <input type="radio"/> agree <input type="radio"/> strongly agree
3) I am satisfied with my life. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> neither agree nor disagree <input type="radio"/> agree <input type="radio"/> strongly agree
4) So far I have gotten the important things I want in life. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> neither agree nor disagree <input type="radio"/> agree <input type="radio"/> strongly agree
5) If I could live my life over, I would change almost nothing. <input type="radio"/> strongly disagree <input type="radio"/> disagree <input type="radio"/> neither agree nor disagree <input type="radio"/> agree <input type="radio"/> strongly agree

More about You

Listed below are a number of statements concerning personal attitudes and traits. Read each item and circle either *true* or *false* according to how the statement pertains to you personally.

1) There have been times when I felt like rebelling against people in authority even though I knew they were right. <input type="radio"/> True <input type="radio"/> False
2) I have never been irked when people expressed ideas very different from my own. <input type="radio"/> True <input type="radio"/> False
3) It is sometimes hard for me to go on with my work if I am not encouraged. <input type="radio"/> True <input type="radio"/> False
4) I am sometimes irritated by people who ask favors of me. <input type="radio"/> True <input type="radio"/> False
5) I sometimes try to get even rather than forgive and forget. <input type="radio"/> True <input type="radio"/> False
6) No matter who I'm talking to, I'm always a good listener. <input type="radio"/> True <input type="radio"/> False
7) I'm always willing to admit it when I make a mistake. <input type="radio"/> True <input type="radio"/> False
8) On a few occasions, I have given up doing something because I thought too little of my ability. <input type="radio"/> True <input type="radio"/> False
9) There have been occasions when I took advantage of someone. <input type="radio"/> True <input type="radio"/> False

10) I have never deliberately said something that hurt someone's feelings. <input type="radio"/> True <input type="radio"/> False
11) I am always courteous, even to people who are disagreeable. <input type="radio"/> True <input type="radio"/> False
12) There have been times when I was quite jealous of the good fortune of others. <input type="radio"/> True <input type="radio"/> False
13) I sometimes feel resentful when I don't get my way. <input type="radio"/> True <input type="radio"/> False

90% complete!
Part 9 of 10

-----Page Break-----

Social and Political Opinions, Beliefs, and Experiences Study

1) In what year were you born?

2) Please indicate how you describe your racial or ethnic identity:

3) Given the following choice of categories, which best represents your race/ethnicity? Please select one:

- African American or Black
- Asian American
- Euro American or White
- Latina/o or Hispanic American
- Native American
- Other (Please specify)

4) Gender:

5) Gender of your spouse or partner (if applicable):

6) Please indicate your level of education:

- less than high school graduate
- high school, but no college
- some college
- college graduate
- post-graduate/professional degree

7) How would you describe your current religion?

8) How would you describe your religious background?

What is your relationship status?

- single
- married
- in a committed relationship
- divorced
- separated
- Other (Please specify)

10) Are you employed? Please select one:

- no
- part-time
- full-time

11) Are you a student? Please select one:

- no
- part-time
- full-time

12) Please describe who lives in your household. Do not use names; just use an initial and indicate the person's relationship to you:

	First Initial (sample: A.)	Age (sample: 12)	Relationship to You (sample: daughter)
1)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
2)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
3)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
4)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
5)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
6)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
7)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
8)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
9)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
10)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
11)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
12)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>
13)	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 50px; height: 15px;" type="text"/>	<input style="width: 100px; height: 15px;" type="text"/>

13) How would you characterize your current financial situation? Please select one:

- Very poor, not enough to get by
- Barely enough to get by
- Have enough to get by but not many "extras"
- Have more than enough to get by
- Well to do
- Extremely well to do

14) Total Household Income (please select one):

- less than 25,000
- 25,000-50,000
- 50,000-75,000
- 75,000-100,000
- over 100,000

15) Which of the following statements best describes your family situation growing up? Please select one:

- Very poor, not enough to get by
- Barely enough to get by
- Had enough to get by but not many "extras"
- Had more than enough to get by
- Well to do
- Extremely well to do

16) In which type of community do you live? Please select one:

- large city (>500,000)
- medium-sized city (100,000 - 500,000)
- suburbs
- small town or village
- rural

What is your zip code?

almost done!

-----Page Break-----

Donation Options for Socially Liberal Participants

* Thank you for your participation in this survey! In appreciation of your time and effort, we will donate \$5 per participant to a Michigan-based charitable organization. Please choose below to indicate the organization to which you would like us to donate.

- American Red Cross
- Big Brothers Big Sisters
- Hospice of Michigan
- Make-a-Wish Foundation of Michigan
- Michigan 4-H Foundation
- Michigan Association of United Ways
- Michigan Council for Arts and Cultural Affairs
- Affirmations Gay and Lesbian Community Center
- Triangle Foundation
- Other (Please specify)

This list of donation options was provided to participants who rated themselves as “slightly liberal,” “liberal,” or “extremely liberal” with respect to social issues. Participants who chose American Red Cross or Big Brothers Big Sisters were asked to indicate the specific chapter to which the donation should be sent.

Donation Options for Socially Conservative Participants

Social and Political Opinions, Beliefs, and Experiences Study

* Thank you for your participation in this survey! In appreciation of your time and effort, we will donate \$5 per participant to a Michigan-based charitable organization. Please check below to indicate the organization to which you would like us to donate.

- American Red Cross
- Big Brothers Big Sisters
- Hospice of Michigan
- Make-a-Wish Foundation of Michigan
- Michigan 4-H Foundation
- Michigan Association of United Ways
- Michigan Council for Arts and Cultural Affairs
- Other (Please specify)

Final Pages of Survey

Social and Political Opinions, Beliefs, and Experiences Study

Finally, where did you hear about this survey?

Additional comments (optional):

(7900 characters remaining)

You've finished the survey!
Please go to the next page.

Please click on "Submit"

powered by www.psychdata.com

After submitting the survey, participants were directed to a final screen that included a final thanks for their participation, contact information for the principal investigator, and an option to forward a survey invitation to others.

APPENDIX B

PSYCHDATA SECURITY STATEMENT

The screenshot shows a Mozilla Firefox browser window displaying the PsychData Security Statement page. The browser's address bar shows the URL <http://www.psychdata.com/content/security.asp>. The page header includes the PsychData logo with the tagline "CONFIDENCE IN RESEARCH" and the date "Sunday, May 11, 2008".

The main content area is titled "Security Statement" and is divided into two sections:

- Overview**: A paragraph explaining that PsychData provides superior online research services to the social science community, emphasizing the security of researcher data and adherence to industry standards for Internet security and IRB standards. It mentions the use of multiple enterprise-level security features and an open dialogue with interested parties.
- Server Infrastructure**: A paragraph detailing the physical security of the servers, including 24-hour monitoring, biometric/intrusion sensors, card readers, and redundant HVAC systems. It also mentions a private transport network and fiber connectivity.

A sidebar on the left contains navigation links: "Sign In", "Create Account", "Home", "About Us", "Testimonials", "Features", "Purchase", "Library", "Support", and "Contact Us". A "The Library" section on the right lists 15 items, with "Security Statement" as item 6.

Help ?

The Library

1. [Save and Return](#)
2. [IRB Application Tips](#)
3. [Identifying Info](#)
4. [Question Logic](#)
5. [Random Stimulus](#)
6. [Security Statement](#)
7. [FAQ](#)
8. [Compare Us](#)
9. [Question Types](#)
10. [Using Copyrighted Materials](#)
11. [Researcher Tips](#)
12. [Comparison](#)
13. [Link to PsychData](#)
14. [Helpful Links](#)
15. [Instant set up](#)

that the network will be down no more than 5 minutes in one year.

Enterprise-Level Database Architecture

PsychData utilizes a robust, centralized, and enterprise-level SQL Server database that is easily capable of handling millions of records and multiple concurrent users. All database transactions utilize TSQL stored procedures for increased database security and efficiency. In addition, our database has been carefully constructed to achieve architecture efficiency and conforms to the Second Normal Form (2NF).

Server Operating System

All servers must use some form of software "platform" in order to operate. PsychData servers are powered by Windows Server 2003 and utilize Internet Information Services (IIS) 6.0. Microsoft Windows Server 2003 is considered to be as secure or more secure than Apache and Linux/Unix platforms. Our servers are professionally administered, updated with the latest security patches and closely monitored at all times.

Secure Socket Layer (SSL) 128-bit Encryption

In order to protect data and other sensitive information during transit from our web pages to our database, we utilize Secure Socket Layer (SSL) 128-bit encryption technology. For many years, Internet-based credit card transactions have been successfully protected by SSL, which utilizes state-of-the-art SSL encryption algorithms. Data is encrypted at the instant that a user submits it and can only be decoded by the target server. PsychData has been granted an SSL certificate from VeriSign, the industry leader in SSL technology.

Code Base

All websites are dependent on the "code base", or programming, which actually runs the site. PsychData provides additional levels of security to our users through our carefully scripted Active Server Pages (ASP) code base. Our logic-routines are server-side and all transactions are first verified for

authenticity against database records. Forms (i.e., surveys) are processed using both client-side form validation for user convenience, and server-side validation for purposes of security and data integrity. Our code-base offers substantial protection to our users (and to their data) against attempted abuse. Additionally, we have developed our unique Secure Survey Environment (SSE) that offers a host of additional safeguards to ensure precise data integrity during survey participation. Indeed, SSE makes it possible to separate identifying information from your research data at the point it is submitted, making PsychData significantly more confidential than paper-and-pencil research methods.

Summary

PsychData has been carefully designed to provide superior online research services to the social science community in a secure setting. The security of our systems and our member's data is our top priority. If you have a question or concern about the safety of online research, we encourage you to [contact us](#) to find out more.

 Send this page to a colleague
Security Statement | Privacy Policy



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APPENDIX C

RECRUITMENT MATERIALS

Sample E-mail Invitation to an Organization

Dear [insert name here]:

I am writing to you because I am seeking participants for my dissertation research project. I have an online survey that I would like to invite your members (over the age of 25) to complete. If you agree to let me post an announcement to your group, I'll donate \$5 per completed survey to [insert name of organization] or any other group (including political candidates) you would like to designate.

The subject of my study is political and social attitudes. I want to make sure that many different perspectives are represented in the survey and have been contacting organizations throughout the state of Michigan to recruit volunteers over the age of 25.

Here is a quick overview of my study:

The survey takes about 20-30 minutes to complete and includes questions about a variety of social and political issues, as well as some more personal questions (e.g., personality, sexual orientation). I feel that it is important that people know that a) there will be some more personal questions included in the survey and b) that the survey is anonymous (I indicated in my contract with PsychData that I will not collect IP addresses).

Thanks for your consideration, and please feel free to be in touch with any questions.

Sincerely,
Jan Habarth
Ph.D. Candidate
University of Michigan

P.S. here is suggested text to forward to your members:

Volunteers (25 and older) wanted for online survey! Raise money for [name of organization]!

This survey is being conducted by a graduate student at the University of Michigan. In appreciation of your time, **\$5 will be donated to [name of organization] for every**

completed survey. Please feel free to forward this link to others who might be interested.

The survey involves questions about social and political attitudes. Some of the questions are more personal, involving issues such as sexuality. The survey is anonymous; no one associated with the study will ever know who responded to the questions. The survey takes about 20-30 minutes.

Click on the link below to take this survey:

Survey link: <https://www.psychdata.com/s.asp?SID=121155>

In case you are interested, here are further details about the study:

- This project is a study of people's beliefs and experiences related to social and political issues, including sexuality. The survey takes about 20-30 minutes.

- All responses will be completely anonymous—we do not ask for names. All surveys will be stored in a locked filing cabinet, or stored anonymously on a secure web server. All results will be reported in terms of group averages and relationships.
- Volunteers may access the survey online at <https://www.psychdata.com/s.asp?SID=121155>. The survey will be administered by PsychData, a company that protects the security and anonymity of responses. Please see the following website if you would like more information about PsychData: <http://psychdata.com/content/security.asp>
- Participation is completely voluntary. Volunteers are free to participate or not, and to skip any questions that they would rather not answer.

Please feel free to contact me if you have any questions. You may reach Jan Habarth (graduate student coordinating this study) at jhabarth@umich.edu, or (734) 763-0063. You may reach David Winter, Jan's faculty advisor, at dgwinter@umich.edu.

Thank you very much for your consideration!

Best wishes,

Jan Habarth
Ph.D. Candidate
University of Michigan

phone: (734) 763-0063

Department of Psychology
530 Church St.
Ann Arbor, MI 48109-1043

Sample Flyer Distributed at Political Rallies and Polling Locations

Raise \$\$ for your favorite candidate or political party!
Participants 25 and Older Wanted for Online Study.

This project is a study of people's beliefs and experiences related to social and political issues, including sexuality.
The survey will take about 20-30 minutes.

SURVEY WEBSITE: www.psychdata.com
Go to survey number "122365"

For every person who completes this survey, we will donate \$5.00 to the organization of your choice.
You will have the opportunity to select an organization at the end of the survey.
You may designate a political candidate or political party as the recipient.

Questions? Contact Jan Habarth: jhabarth@umich.edu or (734) 763-0063.

All surveys will be anonymous. All results will be reported in terms of group averages and relationships. The survey will be administered by PsychData, a company that protects the security and anonymity of responses. Please see the following website if you would like more information about PsychData: <http://psychdata.com/content/security.asp>. Your participation is completely voluntary and anonymous. We will not ask for your name at any time. You are free to participate or not, and to skip any questions you would rather not answer.

APPENDIX D
TABLES

Table D1

Reliability of Measures

Measure	# of items	Cronbach's alpha					
		Total Sample (<i>n</i> = 439-524)	Women (<i>n</i> = 245-274)	Men (<i>n</i> = 190-216)	Lesbian/Gay (<i>n</i> = 106-121)	Bisexual/ between (<i>n</i> = 59-63)	Heterosexual (<i>n</i> = 268-302)
RWA	18	.93	.93	.93	.82	.88	.94
Tolerance of ambiguity	16	.60	.61	.59	.50	.50	.63
Openness to experience	6	.68	.68	.69	.68	.48	.70
PAQ: femininity	8	.75	.78	.71	.72	.73	.77
PAQ: masculinity	8	.73	.70	.76	.72	.69	.73
Beliefs about sexual fluidity	6	.81	.83	.78	.73	.76	.85
Heteronormativity: Total	16	.90	.90	.91	.79	.88	.91
Gender as binary	8	.85	.85	.85	.79	.82	.85
Normative sexual behavior	8	.86	.85	.87	.68	.83	.87
Depressive symptoms	20	.92	.91	.92	.94	.90	.90
Life satisfaction	5	.87	.87	.88	.88	.88	.87
Social desirability	13	.63	.61	.64	.53	.69	.65

Table D2

Sample Characteristics: Race/ Ethnicity

Variable	<i>n</i>	%
Race/ Ethnicity		
European-American/ White	444	92.5
African-American/ Black	13	2.7
Latino/a/ Hispanic	8	1.7
Asian/ Asian-American	6	1.3
Indian/ South Asian	4	.8
Native American	2	.4
Middle Eastern	1	.2
Mixed or biracial	2	.4
Total	480	
Missing	96	

Table D3

Sample Characteristics: Background and Current Religious Orientation

Variable	Background Religion		Current Religion	
	<i>n</i>	%	<i>n</i>	%
Full list (14 categories)				
Catholic	129	28.0	56	11.9
Protestant, denomination specified	149	32.4	90	19.2
Christian, unspecified	60	13.0	64	13.6
Unitarian Universalist	1	.2	11	2.3
Jewish	19	4.1	15	3.2
Buddhist	1	.2	8	1.7
Hindu	2	.4	4	.9
Native American or Indigenous	0	0.0	3	.6
Pagan, Wiccan, Earth-Based, or New Age	2	.4	17	3.6
Baha'i	1	.2	1	.2
Muslim	1	.2	0	0.0
Multiple religions or transdenominational	13	2.8	20	4.3
Religious or spiritual, unspecified	39	8.5	55	11.7
Atheist/ agnostic/ not religious	43	9.3	125	26.7
Condensed list (6 categories)				
Catholic	129	28.0	56	11.9
Protestant, denomination specified	149	32.4	90	19.2
Christian, unspecified	60	13.0	64	13.6
Other religion ^a	40	8.7	79	16.8
Religious or spiritual, unspecified	39	8.5	55	11.7
Atheist/ agnostic/ not religious	43	9.3	125	26.7
Total	460		469	
Missing (includes uncodable adjectives)	116		107	

^aThis category consisted of Unitarian, Jewish, Buddhist, Hindu, Native American, Pagan, Baha'i, and Muslim participants, as well as those who reported observing multiple religions.

Table D4

Correlations Among All Sexual Fluidity Variables

	Sexual fluidity item	count # of sexual orientation dimensions in which gendered objects shifted	difference between past/present sexual identity ratings	difference between past/present attraction ratings	difference between past/present fantasy ratings	difference between past/present sexual behavior ratings	count # of sexual orientation dimensions in which gendered objects shifted to greater same sex orientation	count # of sexual orientation dimensions in which gendered objects shifted to greater opposite sex orientation
Sexual fluidity item	1.000	.706**	-.293**	-.328**	-.242**	-.006	.327**	.572**
N	494.000	.000 428	.000 486	.000 479	.000 474	.896 448	.000 428	.000 428
count # of sexual orientation dimensions in which gendered objects shifted	.706**	1.000	-.525**	-.464**	-.342**	-.143**	.431**	.830**
N	.000 428	430.000	.000 430	.000 430	.000 430	.003 430	.000 430	.000 430
difference between past/present sexual identity ratings	-.293**	-.525**	1.000	.695**	.528**	.462**	.293**	-.757**
N	.000 486	.000 430	490.000	.000 478	.000 470	.000 444	.000 430	.000 430
difference between past/present attraction ratings	-.328**	-.464**	.695**	1.000	.684**	.469**	.359**	-.731**
N	.000 479	.000 430	.000 478	483.000	.000 470	.000 442	.000 430	.000 430
difference between past/present fantasy ratings	-.242**	-.342**	.528**	.684**	1.000	.354**	.365**	-.600**
N	.000 474	.000 430	.000 470	.000 470	476.000	.000 440	.000 430	.000 430
difference between past/present sexual behavior ratings	-.006	-.143**	.462**	.469**	.354**	1.000	.494**	-.463**
N	.896 448	.003 430	.000 444	.000 442	.000 440	451.000	.000 430	.000 430
count # of sexual orientation dimensions in which gendered objects shifted to greater same sex orientation	.327**	.431**	.293**	.359**	.365**	.494**	1.000	-.145**
N	.000 428	.000 430	.000 430	.000 430	.000 430	.000 430	430.000	.003 430
count # of sexual orientation dimensions in which gendered objects shifted to greater opposite sex orientation	.572**	.830**	-.757**	-.731**	-.600**	-.463**	-.145**	1.000
N	.000 428	.000 430	.000 430	.000 430	.000 430	.000 430	.003 430	430.000

** Correlation is significant at the 0.01 level (2-tailed).

Table D5

Factor Loadings on the Heteronormative Attitudes and Beliefs Scale

Item	Component	
	1	2
1. What we think of as biological sex is actually made up by society.	-.411	.077
2. Gender is determined by biological factors, such as genes and hormones, before birth.	.650	.074
3. People should partner only with individuals of the opposite sex.	.419	.494
4. There are only two sexes: male and female.	.779	.078
5. It is just because of what society expects that babies are assigned to a gender based on what their bodies look like.	-.483	-.071
6. All people are either male or female.	.790	.129
7. If you are male or female, then you are that gender for all time.	.675	.200
8. Gender means who a person is, based on sex.	.734	.218
9. When people undergo sex change operations, they are altering their biological sex.	-.039	-.421
10. Sexual orientation and identity are complex and difficult to determine unless you get to know a person.	-.529	-.344
11. In intimate relationships, women and men take on roles according to gender for a reason; it's really the best way to have a successful relationship.	.247	.704
12. Some people just don't fit into either male or female sex categories	-.760	-.123
13. In intimate relationships, people should act only according to what is traditionally expected of their gender	.027	.575
14. As long as children are not exposed to homosexual ideas, they will grow up to be straight.	.264	.588
15. Gender is the same thing as sex.	.823	.089
16. All of my friends and family members are straight.	.303	.279
17. It's perfectly okay for people to have intimate relationships with people of the same sex.	-.305	-.677
18. Even people born with both a penis and a vagina are essentially male OR female.	.558	.301
19. You can figure out gender by looking at a person.	.400	.452
20. The best way to raise a child is to have a mother and a father raise the child together.	.168	.616
21. In healthy intimate relationships, women may sometimes take on stereotypical 'male' roles, and men may sometimes take on stereotypical 'female' roles.	.039	-.591
22. Being sexually attracted to someone of the same sex indicates an imbalance or abnormality of some sort.	.397	.530
23. Gender is something that is "made up" by society, not created by nature.	-.677	-.121
24. Sex is complex; in fact, there might even be more than 2 sexes.	-.751	-.092

Table D5 (continued)

Factor Loadings on the Heteronormative Attitudes and Beliefs Scale

Item	Component	
	1	2
25. Gender is a complicated issue, and it doesn't always match up with biological sex.	-.801	-.093
26. When I meet new people, I use neutral language to refer to partners, because the person may or may not be heterosexual.	-.184	-.102
27. It is possible that people who identify themselves as heterosexual will at some point fall in love with someone of the same sex.	-.243	-.509
28. Women and men need not fall into stereotypical gender roles when in an intimate relationship.	.001	-.541
29. People who seem normal are probably straight.	.133	.569
30. People should partner with whomever they choose, regardless of sex or gender.	-.222	-.561
31. There are particular ways that men should act and particular ways that women should act in relationships.	.080	.733
32. When I meet new people, I assume that they are straight.	-.197	.215
33. People who say that there are only two legitimate genders are mistaken.	-.801	-.059
34. In intimate relationships, it is not necessary for women and men to adopt particular roles according to gender.	-.065	-.482
35. Gender is something we learn from society.	-.705	-.096
36. Living a 'good life' has little to do with sexual orientation.	.089	-.144
37. It is hard to be sure of a person's sexual orientation without specifically asking.	-.429	-.126
38. Even a person with ambiguous genitalia is still either male or female.	.694	.244

Note. Final sixteen HABS items are in bold.

Table D6

Sample Characteristics: Continuous Variables

Variable	<i>N</i>	Range	<i>M</i>	<i>SD</i>
Number of others in household	398	0 – 9	1.66	1.16
Number of children in household	398	0 – 8	.72	1.08
SES composite	488	-2.78 – 1.71	.00	.78

Table D7

Sample Characteristics: Socioeconomic Status

Variable	<i>N</i>	%
Financial situation while growing up		
Very poor	10	2.1
Barely enough to get by	57	11.8
Enough to get by	225	46.5
More than enough to get by	150	31.0
Well to do	40	8.3
Extremely well to do	2	.4
Total	484	
Missing	92	
Annual household income		
Less than 25,000	61	12.9
25,000 – 50,000	112	23.7
50,000 – 75,000	93	19.7
75,000 – 100,000	83	17.5
Over 100,000	124	26.2
Total	473	
Missing	103	

Table D8

Sample Characteristics: Categorical Demographic Variables

Variable	<i>N</i>	%
Employment status		
Not working	64	13.2
Working part-time	78	16.1
Working full-time	343	70.7
Total	485	
Student Status		
Not a student	404	84.0
Part-time student	36	7.5
Full-time student	41	8.5
Total	481	
Missing	95	
Type of community		
Medium or large-sized city	214	44.2
Suburbs	166	34.3
Small town, village, or rural	104	21.5
Total	484	
Missing	92	
Relationship status		
Single ^a	148	31.0
Married or in committed relationship	329	69.0
Total	477	
Missing	99	
Living with children		
0 children	239	60.1
1 or more children	159	40.0
Total	398	
Missing	178	

^aThis category also includes divorced, separated, and widowed.

Table D9

Coming-of-Age Cohorts

Cohort	Defining events	Event dates	Birthdates	<i>n</i>	%
Pre-Stonewall	Kinsey reports published	1948, 1953			
	Homosexuality in mainstream media	1960 – 1963	< 1944	31	6.4
Stonewall	Protests in response to police raid at Stonewall Bar in New York City	1969	1944 – 1951	77	15.9
DSM	Homosexuality removed from DSM	1973	1952 – 1959	97	20.0
AIDS	Rock Hudson dies of AIDS	1985			
	AIDS crisis and AIDS-related activism	1985 – 1995	1960 – 1978	220	45.5
Post-AIDS	Ellen DeGeneres comes out on TV	1997			
	Vermont same-sex civil unions legalized	2003	> 1979	59	12.2
Total				484	
Missing				92	

Table D10

“Coming Out” Cohorts (Sexual Minorities Only)

Cohort	Defining events	Event dates	Cohorts defined by date of “coming out”			
			Out to self ^a		Disclosed to another person	
			<i>n</i>	%	<i>n</i>	%
Pre-Stonewall	Kinsey reports published	1948, 1953				
	Homosexuality in mainstream media	1960 – 1963	35	19.9	10	6.0
Stonewall	Protests in response to police raid at Stonewall Bar in New York City	1969	13	7.4	12	7.2
DSM	Homosexuality removed from DSM	1973	51	29.0	37	22.3
AIDS	Rock Hudson dies of AIDS	1985				
	AIDS crisis and AIDS-related activism	1985 – 1995	56	29.9	59	35.5
Post-AIDS	Ellen DeGeneres comes out on TV	1997				
	Vermont same-sex civil unions legalized	2003	21	11.2	48	28.9
Total			176		166	
Missing			11		21	

^aThese cohorts were determined by the year in which participants first thought of themselves as having a sexual orientation.”

Table D11

Sexual Identity and Fluidity: Categorical Variables

Variable	<i>n</i>	%
Current sexual identity		
Responses to sexual identity survey question		
Exclusively lesbian or gay	124	25.2
Mostly lesbian or gay	14	2.8
Somewhat more gay/lesbian than heterosexual	4	.8
Bisexual	9	1.8
Somewhat more heterosexual than gay/lesbian	8	1.6
Mostly heterosexual	28	5.7
Exclusively heterosexual	306	62.1
Three groups		
Exclusively lesbian or gay	124	25.2
Bisexual or between gay/lesbian and heterosexual	63	12.7
Exclusively heterosexual	306	62.1
Total	493	
Missing	83	
Sexual fluidity		
Throughout my life, my sexual orientation has...		
Always been the same	355	71.9
Mostly or somewhat been the same	86	17.4
Somewhat, often, or very often changed	53	10.7
Total	494	
Missing	82	
Count of dimensions of sexual fluidity ^a		
0	223	51.9
1-2	118	27.4
3-4	89	20.7
Total	430	
Missing	146	

^aOne point was given for a difference in “past” and “present” responses for each of the following: identity labels, attraction, fantasy, and behavior.

Table D12

Crosstabs: Key Demographic Variables by Sexual Identity

Variable	Sexual Minority	Exclusively Heterosexual	Total	χ^2
Current religion				
Catholic	5.6	16.3	12.1	
Protestant, denomination specified	21.8	17.7	19.3	
Christian, unspecified	14.5	13.1	13.6	
Other religion	14.0	19.1	17.1	
Spiritual or religious, unspecified	14.5	9.9	11.7	
Atheist/ agnostic/ not religious	29.6	24.0	26.2	
Total (<i>n</i>)	(179)	(283)	(462)	16.42**
Relationship status				
Single	41.8	24.2	31.0	
Married or in a committed relationship	58.2	75.8	69.0	
Total (<i>n</i>)	(184)	(293)	(477)	16.39***
Race/ ethnicity				
Racial/ ethnic minority	6.0	8.2	7.4	
European American/ Caucasian	94.0	91.8	92.6	
Total (<i>n</i>)	(182)	(291)	(473)	<i>ns</i>
Type of Community				
Medium or large-sized city	46.2	42.3	43.8	
Suburbs	37.0	33.1	34.6	
Small town, village, or rural	16.8	24.6	21.6	
Total (<i>n</i>)	(184)	(293)	(477)	<i>ns</i>

Note. Sexual minority category was defined by the following response to sexual identity item: exclusively lesbian/gay, mostly lesbian/gay, somewhat lesbian/gay, bisexual, somewhat heterosexual, mostly heterosexual. All percentages are based on corresponding column totals.

** $p < .01$, *** $p < .001$

Table D13

Crosstabs: Percentages of Participants within Demographic Categories by Gender

Variable	Men	Women	Total	χ^2
Sexual identity				
Sexual minority	47.2	29.7	37.4	
Exclusively heterosexual	52.8	70.3	62.6	
Total (<i>n</i>)	(216)	(273)	(489)	15.86***
Current Religion				
Catholic	9.8	13.8	12.0	
Protestant, denomination specified	22.4	16.9	19.4	
Christian, unspecified	12.7	14.6	13.8	
Other religion	13.7	19.6	17.0	
Spiritual or religious, unspecified	10.2	12.7	11.6	
Atheist/ agnostic/ not religious	31.2	22.3	26.2	
Total (<i>n</i>)	(205)	(260)	(465)	10.16 [†]
Relationship status				
Single	31.8	30.5	31.0	
Married or in a committed relationship	68.2	69.5	69.0	
Total (<i>n</i>)	(211)	(269)	(480)	<i>ns</i>
Race/ ethnicity				
Racial/ ethnic minority	7.7	7.5	7.6	
European American/ Caucasian	92.3	92.5	92.4	
Total (<i>n</i>)	(208)	(268)	(476)	<i>ns</i>

Note. All percentages are based on corresponding column totals. Transgender participants were not included in these analyses because the group was too small (*n*=4).

[†]*p* <.10, ****p* <.001

Table D14

Demographics and Political Attitudes by Gender and Sexual Minority Status

Variable	Gender				Sexual minority status			
	Men		Women		Y		N	
	<i>(n = 210-219)</i>		<i>(n = 269-277)</i>		<i>(n = 184-187)</i>		<i>(n = 293-306)</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age	46.46	12.87	43.40**	12.62	44.57	12.12	44.72	13.22
Education	4.41	.78	4.31	.83	4.20	.83	4.45**	.79
Current financial situation	3.65	1.00	3.44*	.89	3.36	.98	3.64**	.90
Financial situation while growing up	3.47	.84	3.21**	.89	3.33	.90	3.32	.86
Political orientation (social)	2.81	1.56	2.62	1.51	2.17	1.05	3.02***	1.68
Political orientation (economic)	3.79	1.75	3.18***	1.48	3.16	1.57	3.63**	1.65

* $p < .05$, ** $p < .01$, *** $p < .001$

Table D15

Independent and Dependent Variables: Descriptive Statistics

Variable	<i>N</i>	Range	<i>M</i>	<i>SD</i>
Political orientation: social	508	1.0 – 7.0	2.70	1.53
Political orientation: economic	506	1.0 – 7.0	3.45	1.63
Sexual fluidity item	494	1.0 – 6.0	1.54	1.04
RWA (no LGBT items)	574	1.0 – 6.5	2.22	1.05
Tolerance of ambiguity	516	2.8 – 5.0	4.84	.54
Openness to experience	505	2.2 – 5.0	3.82	.52
PAQ: femininity	506	2.3 – 5.0	4.03	.49
PAQ: masculinity	506	1.8 – 4.9	3.75	.53
Heteronormativity	484	1.1 – 6.4	2.89	1.06
Attitudes about bisexuality	478	1.0 – 5.0	4.01	1.02
Beliefs about sexual fluidity	480	1.2 – 7.0	4.65	1.14
Depressive symptoms	488	1.0 – 3.6	1.51	.47
Life satisfaction	487	1.0 – 5.0	3.41	.84
Social desirability	486	1.0 – 2.0	1.45	.20

Table D16

Intercorrelations among Demographic, Independent, and Dependent Variables (Full Sample; N =434)

Variable	Attitudes about sexuality ^a		Heteronormativity		Psychological well-being	
	Bisexuality	Fluidity	Gender as binary	Normative sexual behavior	Depressive symptoms	Life satisfaction
Age	.00	-.15**	.03	.07	-.21***	.02
SES composite	-.06	-.01	.05	.02	-.31***	.39***
Social desirability	-.04	-.12**	.08	.14**	-.19***	.11*
Adjusted for the effects of age, SES, and social desirability						
Sexual fluidity item	.23***	.23***	-.24***	-.19***	.06	-.04
Lesbian/gay friends	.09 [†]	.00	-.32***	-.41***	.03	.03
PAQ: femininity	.05	-.03	-.07	-.20***	-.05	.05
PAQ: masculinity	-.06	-.02	.05	-.01	-.24***	.21***
Political orientation: social ^b	-.31***	-.09*	.55***	.68***	-.05	.04
Political orientation: fiscal ^b	-.21***	-.11*	.35***	.42***	-.03	.00
RWA (no LGBT items)	-.36***	-.09 [†]	.59***	.79***	-.06	.03
Tolerance of ambiguity	.26***	.14**	-.39***	-.42***	.02	-.05
Openness to experience	.14**	.04	-.32***	-.30***	.04	-.04

^aScales range from 1 (negative attitudes) to 7 (positive attitudes). ^bScales range from 1 (extremely liberal) to 7 (extremely conservative).

* $p < .05$, ** $p < .01$, *** $p < .001$

Table D17

Intercorrelations among Demographic, Independent, and Dependent Variables (Men Only; n = 187)

Variable	Attitudes about sexuality ^a		Heteronormativity		Psychological well-being	
	Bisexuality	Fluidity	Gender as binary	Normative sexual behavior	Depressive symptoms	Life satisfaction
Age	-.04	-.14*	.00	.05	-.17*	.04
SES composite	-.06	.12	.14*	.08	-.30***	.41***
Social desirability	.05	-.15*	.02	.06	-.15*	.14
Adjusted for the effects of age, SES, and social desirability						
Sexual fluidity item	.19*	.12	-.10	-.11	.01	-.10
Lesbian/gay friends	.09	-.06	-.32***	-.44***	-.01	.03
PAQ: femininity	-.03	-.02	-.22**	-.35***	-.01	-.02
PAQ: masculinity	-.16*	-.11	.12	.04	-.22**	.25***
Political orientation: social ^b	-.34***	.01	.63***	.71***	-.08	.10
Political orientation: fiscal ^b	-.26***	-.08	.43***	.46***	-.05	.06
RWA (no LGBT items)	-.37***	.01	.59***	.82***	-.17*	.11
Tolerance of ambiguity	.33***	.08	-.41***	-.47***	.10	-.09
Openness to experience	.12	-.01	-.28***	-.28***	.04	-.15*

^aScales range from 1 (negative attitudes) to 7 (positive attitudes). ^bScales range from 1 (extremely liberal) to 7 (extremely conservative).

* $p < .05$, ** $p < .01$, *** $p < .001$

Table D18

Intercorrelations among Demographic, Independent, and Dependent Variables (Women Only; n = 242)

Variable	Attitudes about sexuality ^a		Heteronormativity		Psychological well-being	
	Bisexuality	Fluidity	Gender as binary	Normative sexual behavior	Depressive symptoms	Life satisfaction
Age	.07	-.12*	.03	.06	-.23***	.01
SES composite	-.01	-.07	-.06	-.09	-.31***	.36***
Social desirability	-.12*	-.10	.14*	.22***	-.22***	.11
Adjusted for effects of age, SES, and social desirability						
Sexual fluidity item	.25***	.25***	-.29***	-.23***	.13*	.00
Lesbian/gay friends	.09	.06	-.30***	-.37***	.07	.04
PAQ: femininity	.07	-.10	.05	-.04	-.10	.06
PAQ: masculinity	.04	.05	-.03	-.06	-.29***	.24***
Political orientation: social ^b	-.30***	-.15*	.48***	.63***	-.01	-.02
Political orientation: fiscal ^b	-.14*	-.08	.26***	.34***	-.03	.02
RWA (no LGBT items)	-.34***	-.10	.60***	.75***	.03	-.05
Tolerance of ambiguity	.20**	.17**	-.41***	-.41***	-.06	.00
Openness to experience	.21**	.10	-.40***	-.40***	.00	.11

^aScales range from 1 (negative attitudes) to 7 (positive attitudes). ^bScales range from 1 (extremely liberal) to 7 (extremely conservative).

* $p < .05$, ** $p < .01$, *** $p < .001$

Table D19

Intercorrelations among Demographic, Independent, and Dependent Variables (Lesbians and Gays Only; n = 111)

Variable	Attitudes about sexuality ^a		Heteronormativity		Psychological well-being	
	Bisexuality	Fluidity	Gender as binary	Normative sexual behavior	Depressive symptoms	Life satisfaction
Age	-.13	-.08	.17	.18	-.21*	.01
SES composite	.00	-.09	.04	-.09	-.35***	.40***
Social desirability	-.21*	-.13	.04	.04	-.10	.17
Adjusted for effects of age, SES, and social desirability						
Sexual fluidity item	.17 [†]	.41***	.03	.15	-.01	-.05
Lesbian/gay friends	.06	.08	-.18 [†]	-.14	-.07	.02
PAQ: femininity	-.07	-.14	-.08	-.18 [†]	-.15	-.08
PAQ: masculinity	.00	.08	.04	-.10	.12	.12
Political orientation: social ^b	-.21*	-.04	.34***	.37***	.18 [†]	-.18 [†]
Political orientation: fiscal ^b	-.10	-.02	.15	.20*	-.04	-.08
RWA (no LGBT items)	-.11	.10	.27**	.66***	.05	-.15
Tolerance of ambiguity	.25***	.11	-.32**	-.34***	-.15	.06
Openness to experience	.13	-.07	-.21*	-.24*	-.14	-.12

^aScales range from 1 (negative attitudes) to 7 (positive attitudes). ^bScales range from 1 (extremely liberal) to 7 (extremely conservative).

* $p < .05$, ** $p < .01$, *** $p < .001$

Table D20

Intercorrelations among Demographic, Independent, and Dependent Variables (Bisexuals and Between L/G – Het. Only; n = 56)

Variable	Attitudes about sexuality ^a		Heteronormativity		Psychological well-being	
	Bisexuality	Fluidity	Gender as binary	Normative sexual behavior	Depressive symptoms	Life satisfaction
Age	-.08	-.37**	.24	.23	-.32*	.08
SES composite	-.03	-.16	.11	.21	-.35**	.39**
Social desirability	-.09	.14	.09	-.07	.05	-.16
Adjusted for effects of age, SES, and social desirability						
Sexual fluidity item	.23 [†]	.27*	-.05	-.21	-.03	.06
Lesbian/gay friends	-.09	-.22	-.17	-.20	.10	-.04
PAQ: femininity	.02	-.07	-.04	-.21	-.37**	.20
PAQ: masculinity	-.04	-.45**	-.07	-.18	-.29*	.31*
Political orientation: social ^b	-.06	-.14	.48***	.53***	-.01	-.17
Political orientation: fiscal ^b	.01	-.23	.26 [†]	.23 [†]	.19	-.24 [†]
RWA (no LGBT items)	-.12	-.25 [†]	.54***	.77***	-.14	-.17
Tolerance of ambiguity	-.16	.03	-.17	-.19	.09	-.03
Openness to experience	.14	-.13	-.19	-.06	-.05	.06

^aScales range from 1 (negative attitudes) to 7 (positive attitudes). ^bScales range from 1 (extremely liberal) to 7 (extremely conservative).

* $p < .05$, ** $p < .01$, *** $p < .001$

Table D21

Intercorrelations among Demographic, Independent, and Dependent Variables (Heterosexuals only; n = 267)

Variable	Attitudes about sexuality ^a		Heteronormativity		Psychological well-being	
	Bisexuality	Fluidity	Gender as binary	Normative sexual behavior	Depressive symptoms	Life satisfaction
Age	.08	-.10	-.08	.02	-.20**	.02
SES composite	-.04	.07	-.07	-.07	-.22***	.34***
Social desirability	.06	-.09	.04	.10	-.17**	.07
Adjusted for effects of age, SES, and social desirability						
Sexual fluidity item	.14*	.05	-.15*	-.08	.04	.02
Lesbian/gay friends	.11 [†]	.08	-.25***	-.34***	-.09	.12 [†]
PAQ: femininity	.10	.01	-.07	-.20**	.04	-.01
PAQ: masculinity	-.05	.04	.04	.04	-.33***	.28***
Political orientation: social ^b	-.38***	.09	.57***	.70***	-.06	.11 [†]
Political orientation: fiscal ^b	-.28***	-.10	.40***	.48***	-.04	.10
RWA (no LGBT items)	-.45***	-.09	.64***	.79***	-.03	.07
Tolerance of ambiguity	.30***	.15*	-.44***	-.47***	.05	-.08
Openness to experience	.13*	.10 [†]	-.33***	-.31***	.04	.00

^aScales range from 1 (negative attitudes) to 7 (positive attitudes). ^bScales range from 1 (extremely liberal) to 7 (extremely conservative).

* $p < .05$, ** $p < .01$, *** $p < .001$

Table D22

Analysis of Covariance of Sexual Fluidity by Gender and Sexual Identity

	Descriptive statistics							
	Men			Women			Total	
	<i>n</i>	<i>M</i>	<i>SE</i>	<i>n</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Exclusively lesbian/gay	69	1.55 _{ab}	.09	51	2.31 _{ac}	.11	1.92	.07
Exclusively heterosexual	107	1.06 _b	.07	185	1.17 _c	.06	1.12	.05
Total		1.30	.06		1.74	.06	1.52	.04

Note. All means are adjusted for the effects of age and SES. Cell means with common subscripts are significantly different from each other at $p < .05$.

Variance table				
Effect	Sum squares	<i>df</i>	<i>MS</i>	<i>F</i>
Gender	15.25	1	15.25	27.29***
Sexual identity	51.69	1	51.69	92.53***
Gender × sexual identity	8.59	1	8.59	15.38***
Error	226.80	406	.56	

*** $p < .001$

Table D23

Analysis of Covariance of Femininity by Gender and Sexual Minority Status

	Descriptive statistics							
	Men			Women			Total	
	<i>n</i>	<i>M</i>	<i>SE</i>	<i>n</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Sexual minority	98	4.05 _a	.05	81	4.11	.05	3.97	.03
Exclusively heterosexual	108	3.82 _{ab}	.05	185	4.13 _b	.03	4.08	.04
Total		3.94	.03		4.12	.03	4.02	.02

Note. All means are adjusted for the effects of age and SES. Cell means with common subscripts are significantly different from each other at $p < .05$.

Variance table				
Effect	Sum squares	<i>df</i>	<i>MS</i>	<i>F</i>
Gender	3.49	1	3.49	16.10***
Sexual identity	1.15	1	1.15	5.31*
Gender × sexual identity	1.54	1	1.54	7.10**
Error	100.96	466	.22	

*** $p < .001$

Table D24

Analysis of Covariance of Masculinity by Gender and Sexual Identity

	Descriptive statistics							
	Men			Women			Total	
	<i>n</i>	<i>M</i>	<i>SE</i>	<i>n</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Sexual minority	98	3.61 _a	.05	81	3.69	.06	3.65	.04
Exclusively heterosexual	108	3.79 _a	.05	185	3.68	.05	3.73	.03
Total		3.70	.04		3.69	.04	3.69	.03

Note. All means are adjusted for the effects of age and SES. Cell means with common subscripts are significantly different from each other at $p < .05$.

Variance table				
Effect	Sum squares	<i>df</i>	<i>MS</i>	<i>F</i>
Gender	.01	1	.01	.03
Sexual identity	.72	1	.72	2.72
Gender × sexual identity	.97	1	.97	3.67 [†]
Error	123.06	466	.26	

[†] $p < .10$

Table D25

Univariate Analyses of Covariance on Personality Characteristics by Sexual Minority Status

Characteristic (possible range)	Sexual minorities (<i>n</i> =182-184)	Heterosexuals (<i>n</i> =287-293)	<i>F</i>
	<i>M</i> (<i>SE</i>)	<i>M</i> (<i>SE</i>)	
RWA (1-7)	1.79 (.07)	2.40 (.06)	41.35***
Heteronormativity			
Gender as binary (1-7)	2.79 (.09)	3.74 (.07)	67.07***
Normative sexual behavior (1-7)	1.92 (.08)	2.71 (.06)	68.09***
Total (1-7)	2.36 (.07)	3.23 (.06)	84.86***
Tolerance of ambiguity (1-7)	4.94 (.04)	4.80 (.03)	7.49**
Openness to experience (1-5)	3.95 (.04)	3.77 (.03)	14.32***

Note. In all analyses, age and SES were included in the model as covariates. Means are estimated marginal means.

p* < .01, *p* < .001

Table D26

Correlates of Heteronormativity by Sexual Identity (Men Only)

Variable	Gender as binary			Normative sexual behavior		
	Exclusively gay (<i>n</i> = 62)	Bisexual/ between (<i>n</i> = 24)	Exclusively heterosexual (<i>n</i> = 100)	Exclusively gay (<i>n</i> = 62)	Bisexual/ between (<i>n</i> = 24)	Exclusively heterosexual (<i>n</i> = 100)
Sexual fluidity item	.17	.24	-.20*	.33**	-.16	-.06
RWA (no LGBT items)	.20	.49 *	.65***	.65***	.77***	.81***
Tolerance of ambiguity	-.25 [†]	-.31	-.50***	-.24 [†]	-.25	-.61***
Openness to experience	-.22 [†]	-.15	-.36***	-.19	-.26	-.38***

Note. All correlations were adjusted for the effects of age, SES, and social desirability.

[†]*p* < .10, **p* < .05, ***p* < .01, ****p* < .001

Table D27

Correlates of Heteronormativity by Sexual Identity (Women Only)

Variable	Gender as binary			Normative sexual behavior		
	Exclusively lesbian (<i>n</i> = 44)	Bisexual/ between (<i>n</i> = 23)	Exclusively heterosexual (<i>n</i> = 174)	Exclusively lesbian (<i>n</i> = 44)	Bisexual/ between (<i>n</i> = 23)	Exclusively heterosexual (<i>n</i> = 174)
Sexual fluidity item	-.14	-.16	-.12	.02	-.19	-.05
RWA (no LGBT items)	.40**	.37 [†]	.60***	.67***	.68***	.75***
Tolerance of ambiguity	-.46**	-.02	-.41***	-.56***	-.34 [†]	-.38***
Openness to experience	-.18	-.16	-.39***	-.35*	.05	-.35***

Note. All correlations were adjusted for the effects of age, SES, and social desirability.

[†]*p* < .10, **p* < .05, ***p* < .01, ****p* < .001

Table D28

Correlates of Social Conservatism by Gender and Sexual Identity

Variable	Sexual Identity			Gender	
	Exclusively lesbian or gay (<i>n</i> = 119-121)	Bisexual/ between (<i>n</i> = 61-63)	Exclusively heterosexual (<i>n</i> = 287-292)	Women (<i>n</i> = 265-269)	Men (<i>n</i> = 207-210)
Heteronormativity:					
Gender as binary	.37 _a ***	.45***	.55 _a ***	.50***	.61***
Normative sexual behavior	.39 _b ***	.53 _c ***	.70 _{bc} ***	.65***	.70***
Total	.46 _d ***	.54***	.69 _d ***	.63***	.72***
RWA (no LGBT items)	.51 _e ***	.56 _f ***	.81 _{ef} ***	.80***	.76***
Tolerance of ambiguity	-.28**	-.06 _g	-.43 _g ***	-.33***	-.46***
Openness to experience	-.27**	-.34**	-.34***	-.41***	-.32***

Note. All correlations are adjusted for the effects of age, SES, social desirability. Coefficients with common subscripts are significantly different from each other at $p < .05$.

* $p < .05$, ** $p < .01$, *** $p < .001$

Table D29

Intercorrelations Among Psychological Well-Being, Demographic Variables, and Independent Variables for Sexual Minorities and Heterosexuals (Women Only)

Variable	Psychological well-being					
	Depressive symptoms			Life satisfaction		
	Lesbian women (<i>n</i> = 45)	Bisexual/ between women (<i>n</i> = 22)	Heterosexual women (<i>n</i> = 180)	Lesbian women (<i>n</i> = 45)	Bisexual/ between women (<i>n</i> = 22)	Heterosexual women (<i>n</i> = 180)
Heteronormativity:						
Total	.31*	-.19	-.01	-.18	-.03	.03
Gender as binary	.28 [†]	-.10	-.04	-.06	-.03	.00
Normative sexual behavior	.20	-.24	.03	-.31*	-.03	.05
Tolerance of ambiguity	-.35*	-.04	.01	.19	-.01	-.09
Openness to experience	-.27 [†]	-.18	.09	.09	.28	.07

Note. All correlations were adjusted for the effects of age, SES, and social desirability.

[†]*p* < .10, **p* < .05, ***p* < .01, ****p* < .001

Table D30

Intercorrelations Among Psychological Well-Being, Demographic Variables, and Independent Variables for Sexual Minorities and Heterosexuals (Men Only)

Variable	Psychological well-being					
	Depressive symptoms			Life satisfaction		
	Gay men (<i>n</i> = 62)	Bisexual/ between men (<i>n</i> = 30)	Heterosexual men (<i>n</i> = 180)	Gay men (<i>n</i> = 62)	Bisexual/ between men (<i>n</i> = 30)	Heterosexual men (<i>n</i> = 180)
Heteronormativity:						
Total	.02	-.19	-.13	-.08	-.36 [†]	.10
Gender as binary	.05	-.20	-.17 [†]	.88***	-.25	.09
Normative sexual behavior	-.04	-.14	-.07	-.08	-.43*	.09
Tolerance of ambiguity	-.01	.22	.12	-.04	.11	-.14
Openness to experience	.00	-.10	.05	-.25	.05	-.17 [†]

Note. All correlations were adjusted for the effects of age, SES, and social desirability.

[†]*p* < .10, **p* < .05, ***p* < .01, ****p* < .001

Table D31

Correlations Among Facets of Sexual Orientation

		Sexual identity (exclusively lesbian/gay to exclusively heterosexual)	same vs. opposite sex attractions	same vs. opposite sex fantasies	sexbehav with same vs. opposite sex partner(s)	Sexual fluidity item	Mean disclosure
Sexual identity (exclusively lesbian/gay to exclusively heterosexual)	Pearson Correlation Sig. (2-tailed) N	1 493	.957** .000 491	.948** .000 476	.985** .000 392	-.358** .000 489	.263** .000 472
same vs. opposite sex attractions	Pearson Correlation Sig. (2-tailed) N	.957** .000 491	1 494	.953** .000 477	.950** .000 393	-.379** .000 490	.324** .000 472
same vs. opposite sex fantasies	Pearson Correlation Sig. (2-tailed) N	.948** .000 476	.953** .000 477	1 479	.936** .000 390	-.375** .000 477	.321** .000 461
sexbehav with same vs. opposite sex partner(s)	Pearson Correlation Sig. (2-tailed) N	.985** .000 392	.950** .000 393	.936** .000 390	1 394	-.327** .000 392	.249** .000 379
Sexual fluidity item	Pearson Correlation Sig. (2-tailed) N	-.358** .000 489	-.379** .000 490	-.375** .000 477	-.327** .000 392	1 494	-.469** .000 474
Mean disclosure	Pearson Correlation Sig. (2-tailed) N	.263** .000 472	.324** .000 472	.321** .000 461	.249** .000 379	-.469** .000 474	1 476

** . Correlation is significant at the 0.01 level (2-tailed).

Table D32

Correlations Between Main Sexual Fluidity Variables by Gender

gender recoded into M or F only		Sexual fluidity item	count # of sexual orientation domains in which gendered objects shifted
men	Sexual fluidity item	1	.630**
			.000
	<i>N</i>	217	176
	count # of sexual orientation domains in which gendered objects shifted	.630**	1
		.000	
	<i>N</i>	176	177
women	Sexual fluidity item	1	.747**
			.000
	<i>N</i>	273	252
	count # of sexual orientation domains in which gendered objects shifted	.747**	1
		.000	
	<i>N</i>	252	253

** . Correlation is significant at the 0.01 level (2-tailed).

Table D33

Correlations Between Main Sexual Fluidity Variables by Sexual Identity

sexorientscale_current recoded into 2 groups		Sexual fluidity item	count # of sexual orientation domains in which gendered objects shifted
exclusively heterosexual	Sexual fluidity item	1	.679**
			.000
	<i>N</i>	303	275
	count # of sexual orientation domains in which gendered objects shifted	.679**	1
		.000	
	<i>N</i>	275	276
sexual minority	Sexual fluidity item	1	.552**
			.000
	<i>N</i>	186	153
	count # of sexual orientation domains in which gendered objects shifted	.552**	1
		.000	
	<i>N</i>	153	154

** . Correlation is significant at the 0.01 level (2-tailed).

Table D34

Descriptive Statistics: Age of Disclosure and Contact by Sexual Identity and Gender

Variable	Range	Full sample (N = 290-443)			Sexual minorities (n = 169-179)		Heterosexuals (n = 115-260)		Women (n = 142-241)		Men (n = 141-203)	
		M	SD	M	SD	M	SD	M	SD	M	SD	
Age first considered own sexual orientation	0 – 50	15.3	7.8	18.8	9.3	13.0	5.4	15.4	7.5	15.2	8.1	
Age first disclosed sexual orientation	5 – 55	21.7	10.3	25.3	10.3	16.7	7.9	22.1	10.9	21.4	9.6	
Age first knew an LGBT person	0 – 50	17.3	6.7	15.9	6.7	18.2	6.5	17.5	6.9	17.0	6.5	

Table D35

Frequencies: Age of Disclosure and Contact by Sexual Identity

Variable	Full sample		Exclusively gay/ lesbian		Bisexual/between		Exclusively heterosexual	
	N	%	N	%	N	%	N	%
Age first knew an LGBT person								
Don't know	1	.2	0	0.0	0	0.0	1	
N/A	8	1.8	0	0.0	0	0.0	8	
Never met and LGBT person	3	.7	0	0.0	0	0.0	3	
Valid responses (age)	442	97.3	114	100.0	60	100.0	257	
Total	454		114		60		306	
Missing	122		10		3		37	
Age first considered own sexual orientation								
Don't know	11	2.3	1	.8	1	1.6	8	2.8
N/A	2	.4	0	0.0	0	0.0	2	.7
Never thought about it	20	4.2	1	.8	3	4.8	16	5.6
Valid responses (age)	443	93.1	120	96.4	59	93.7	260	90.9
Total	476		122		63		286	
Missing or uncodable	100		2		0		20	
Age first disclosed own sexual orientation								
Don't know	12	2.7	0	0.0	1	1.6	11	4.3
N/A	7	1.6	0	0.0	1	1.6	6	2.4
Never told another person	131	29.8	0	0.0	11	17.8	118	46.6
Valid responses (age)	290	65.9	120	100.0	49	79.0	118	46.6
Total	440		120		62		253	
Missing or uncodable	136		4		1		53	

Table D36

Frequencies: Disclosure by Sexual Identity

Variable	Full sample		Exclusively gay/ lesbian		Bisexual/between		Exclusively heterosexual	
	N	%	N	%	N	%	N	%
How many family members know your sexual orientation?								
None	19	3.9	1	.8	16	26.2	2	.7
Few	18	3.7	10	8.2	3	4.9	5	1.7
Some	11	2.3	5	4.1	2	3.3	3	1.0
Most	46	9.4	24	19.7	16	26.2	6	2.0
All	393	80.7	82	67.2	24	39.3	283	94.6
Total	487		122		61		299	
Missing	89		2		2		7	
How many friends know your sexual orientation?								
None	8	1.6	0	0.0	3	4.8	5	1.7
Few	18	3.7	3	2.5	11	17.7	4	1.3
Some	20	4.1	10	8.2	7	11.3	1	.3
Most	77	15.8	31	25.4	17	27.4	29	9.7
All	365	75.8	78	63.9	24	38.7	260	87.0
Total	488		122		62		299	
Missing	88		2		1		7	
How many coworkers know your sexual orientation?								
None	49	10.1	14	11.5	19	30.6	14	4.7
Few	29	6.0	14	11.5	10	16.1	5	1.7
Some	38	7.9	17	13.9	10	16.1	10	3.4
Most	84	17.4	33	27.0	8	12.9	43	14.5
All	284	58.7	44	36.1	15	24.2	224	75.7
Total	484		122		62		296	
Missing	92		2		1		10	

Table D37

Correlations Among Sexual Orientation Variables, Contact with Sexual Minorities, and Worries about Identity Perceptions

	Sexual identity (exclusively lesbian/gay to exclusively heterosexual)	Sexual fluidity	At what age did you come to think of yourself as having a sexual orientation?	At what age did you first tell another person about your sexual orientation?	At what age do you think you first realized that you knew a gay, lesbian, or bisexual person?	MEAN of sexual minority friends and acquaintances	MEAN of straight friends and acquaintances	Are you worried, concerned, or afraid that people will think that you are lesbian, gay, bisexual, or transgender?	Are you worried, concerned, or afraid that people will think that you are straight or heterosexual?
Sexual identity (exclusively lesbian/gay to exclusively heterosexual) <i>N</i>	1 .000 493	-.358** .000 489	-.361** .000 439	-.390** .000 284	.198** .000 431	-.479** .000 440	.337** .000 467	-.300** .000 484	-.297** .000 484
Sexual fluidity <i>N</i>	-.358** .000 489	1 .000 494	.292** .000 441	.303** .000 285	-.022 .641 435	.214** .000 440	-.194** .000 468	.327** .000 487	.215** .000 487
At what age did you come to think of yourself as having a sexual orientation? <i>N</i>	-.361** .000 439	.292** .000 441	1 .000 443	.640** .000 278	.170** .001 395	.086 .085 400	-.221** .000 423	.205** .000 439	.115* .016 439
At what age did you first tell another person about your sexual orientation? <i>N</i>	-.390** .000 284	.303** .000 285	.640** .000 278	1 .000 287	.194** .002 264	.152* .012 272	-.213** .000 276	.197** .001 286	.019 .748 286
At what age do you think you first realized that you knew a gay, lesbian, or bisexual person? <i>N</i>	.198** .000 431	-.022 .641 435	.170** .001 395	.194** .002 264	1 .000 442	-.213** .000 396	-.029 .550 419	-.074 .128 429	-.157** .001 430
MEAN of sexual minority friends and acquaintances <i>N</i>	-.479** .000 440	.214** .000 440	.086 .085 400	.152* .012 272	-.213** .000 396	1 .000 450	.102* .030 449	.081 .091 439	.202** .000 438
MEAN of straight friends and acquaintances <i>N</i>	.337** .000 467	-.194** .000 468	-.221** .000 423	-.213** .000 276	-.029 .550 419	.102* .030 449	1 .000 479	-.216** .000 465	-.136** .003 465
Are you worried, concerned, or afraid that people will think that you are lesbian, gay, bisexual, or transgender? <i>N</i>	-.300** .000 484	.327** .000 487	.205** .000 439	.197** .001 286	-.074 .128 429	.081 .091 439	-.216** .000 465	1 .000 489	.228** .000 487
Are you worried, concerned, or afraid that people will think that you are straight or heterosexual? <i>N</i>	-.297** .000 484	.215** .000 487	.115* .016 439	.019 .748 286	-.157** .001 430	.202** .000 438	-.136** .003 465	.228** .000 487	1 .000 489

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table D38

Summary of Hierarchical Regression Analyses for Variables Predicting Life Satisfaction Among Sexual Minorities (n = 171)

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Age	-.01	.08	-.01	.00	.08	.00	.01	.08	.01	.00	.08	.00
SES	.41	.07	.41***	.37	.07	.38***	.40	.08	.40	.37	.08	.37***
TOA				.01	.09	.01	-.01	.09	-.01	.00	.09	.00
Openness				-.14	.09	-.13	-.15	.09	-.13 [†]	-.15	.08	-.13 [†]
RWA				-.26	.13	-.16*	-.15	.15	-.09	-.13	.15	-.08
Heteronormativity							-.17	.13	-.12	-.15	.13	-.10
Disclosure										.14	.06	.16*
<i>R</i> ²		.17			.20			.21			.23	
<i>F</i> for change in <i>R</i> ²		16.67***			2.10			1.77			4.84*	

[†]*p* < .05, **p* < .05, ***p* < .01, ****p* < .001

Table D39

Summary of Hierarchical Regression Analyses for Variables Predicting Depressive Symptoms Among Sexual Minorities (n = 172)

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Age	-.26	.09	-.20**	-.26	.10	-.20**	-.27	.10	-.21**	-.26	.10	-.20**
SES	-.36	.08	-.32***	-.37	.09	-.32***	-.38	.09	-.34***	-.37	.09	-.32***
TOA				-.04	.10	-.03	-.02	.10	-.02	-.03	.10	-.03
Openness				-.10	.10	-.08	-.10	.10	-.07	-.10	.10	-.07
RWA				-.10	.15	-.05	-.18	.18	-.09	-.20	.17	-.10
Heteronormativity							.13	.15	.08	.11	.15	.07
Disclosure										-.10	.07	-.10
R^2		.17			.18			.18			.19	
<i>F</i> for change in R^2		16.83***			.56			.79			1.93	

* $p < .05$, ** $p < .01$, *** $p < .001$

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