The Measure of a Man: A Critical Methodology for Investigating Essentialist Beliefs about Sexual Orientation Categories in Japan and the United States

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The measure of a man: A critical methodology for investigating essentialist beliefs about sexual orientation categories in Japan and the United States

by

Brian R. Davis

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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ABSTRACT

The measure of a man: A critical methodology for investigating essentialist beliefs about sexual orientation categories in Japan and the United States

by

Brian R. Davis

Advisor: Deborah L. Tolman

Methods for studying laypeople’s beliefs about sexual orientation categories have evolved in step with larger theoretical and epistemological shifts in the interdisciplinary study of sexuality. The dominant approach to measuring laypeople’s sexual orientation beliefs over the past decade was made possible through an epistemological shift from a nature vs. nurture paradigm to a social constructionist theoretical model of psychological essentialism (Medin, 1989; Medin & Ortony, 1989; Rothbart & Taylor, 1992). Despite this shift, I argue that the forced-response scale-based survey methodologies typically used to operationally define essentialist beliefs about sexual orientation at best only partially realize the social constructionist potential of this underlying theory. By critically reconstructing this theory of psychological essentialism from an epistemological stance rooted in discourse, I developed a methodology reliant not on investigators’ but rather laypeople’s own mobilization of culturally shared discourses of sexuality. In testing this methodology, I focus on one theoretical dimension of psychological essentialism—inductive potential, or the extent to which shared knowledge about category membership allows for inference of a wealth of associated information about specific
category members. I explored this critical methodology through a mixed-method empirical investigation of laypeople’s beliefs in the inductive potential of sexual orientation categories in relation to two components of sexuality: sexual desire and romantic love. I sought to answer two research questions:

1) To what extent, and in what ways, do laypeople discursively mobilize inductive potential beliefs about homosexual or heterosexual men’s sexual desire and romantic love?

2) To what extent, and in what ways, is laypeople’s discursive mobilization of those inductive potential beliefs explained by their gendered and/or cultural contexts?

In Study 1, I primed cultural discourses of sexual orientation categories prior to an impression formation task. Students from four-year public universities in the Tokyo (N = 197; ages 18-23) and New York City (N = 208; ages 18-25) metropolitan areas read a series of fictional diary entries featuring a male college student (the target) describing his attraction to either a female or male classmate. Each participant then manually drew a Euler diagram comprised of circles representing their impressions of the relative importance (circle size) and interrelationships between (circle overlap) six identities associated with the target. To the extent participants engaged in inductive potential beliefs, I predicted that: (H1) participants would perceive sexual desire as more centrally defining of a same-sex attracted male target relative to an other-sex attracted male target; and (H2) participants would perceive romantic love as less centrally defining of a same-sex attracted male target relative to an other-sex attracted male target. Fitting multiple circle size and overlap outcomes to separate generalized linear models, I found a consistent pattern of support for both predictions. Cultural and gendered differences added additional nuance to these experimental patterns: Japanese participants associated men with greater sexual desire and less romantic love relative to their US peers, regardless of
perceived sexual orientation. Additionally, US and Japanese men, compared to women, appeared to associate these two components of sexuality more frequently with men’s social roles. As such, while these results strongly suggested the presence of participants’ inductive potential beliefs about sexual orientation categories, they also pointed to important variation across culture and gender.

In an effort to discursively unpack the inductively rich meanings associated with these additional gendered and cultural patterns, as well as establish the cultural credibility of my interpretations of the results of this experimental manipulation, in a second study I engaged separate peer focus groups in New York City (N = 20; ages 19-25) and Tokyo (N = 21; ages 20-24) in discursively interpreting the Euler diagrams produced in Study 1. Using thematic analysis, I identified three themes concerning the ways several distinct sexual orientation discourses were culturally understood in the US and Japan; the ways those discourses were imbricated with other distinct discourses of cultural identity; and the ways laypeople voiced resistance to these sexual orientation discourses. I concluded that the experimental pattern from Study 1 could be explained in part through US participants’ rejection of an essentialist discourse of binary sexual orientation in favor of a focus on sexual practices; Japanese participants’ responses marked instead a troubling of essentialist discourses of binary gender. Taken together, these findings from Study 1 and 2 implicate sexual orientation as an inductively potent discourse in laypeople’s construction of beliefs about male sexuality across cultural contexts and genders, albeit in cultural distinct ways. These results thus add to past research on essentialist beliefs while also highlighting a need for critical methodologies sensitive to the ways culturally embedded and multiply imbricated transnational discourses of sexuality inform beliefs about men.
ACKNOWLEDGMENTS

I would be remiss if I did not first and foremost extend my gratitude to Dr. Yuki Shimizu, Saitama University, for making this project possible through her generous donation of time and resources as well as arrangement of grant support. While the long journey of this dissertation began modestly enough with our early language exchange chats over tea and coffee in New York City, over the subsequent years I have benefitted enormously—and learned much—from our experiences navigating research collaboration across cultures, languages and psychological subdisciplines. I also gratefully acknowledge grant support from the IIE Fulbright program in Japan and all JUSEC staff; a CUNY Doctoral Student Research Grant; and the APAGS LGBT Dissertation Grant through the American Psychological Association.

Many marvelous mentors guided the evolution of my thinking and development as a critical scholar during this journey. From the beginning of my training, Deb Tolman welcomed me into the community of scholars through her full faith in my ability to navigate my own unique professional developmental path. Sean Massey and Peter Hegarty encouraged my critical interest in essentialist beliefs, while John Greenwood opened my eyes to the importance of critically interrogating the “social” in social psychology. Wendy Luttrell provided early guidance on mixed methods approaches to integrating interpretive communities and cultural competence, and Phil Hammack encouraged me to run with the concept of identity centrality. Brett Stoudt, Jay Verkuilen and Mike Smithson guided my critical thinking about instrumentation, Euler diagrams and generalized linear models. Midori Yusa volunteered many hours poring over translations with me while debating the finer points of Japanese discourses of sexuality. Yuko Higashi introduced me to the world of critical sexuality scholarship and advocacy in Japan; this
dissertation hopefully marks but the first step in an ongoing research collaboration and friendship. Special thanks also go to David Halperin for his professional skepticism tempered with personal support; to him I offer my steadfast professional commitment to “do my fucking job.” Finally, my heartfelt gratitude goes to Doug Kimmel for his friendship and guidance from the beginning to the end of this journey.

Thanks also go to my psychology students at Hunter College for volunteering their time and energies with much of the “grunt work”: Karen Arias, Katie Batista, Jessica Beltran, Danielle Bertino, Veronica Bravo, Asmaa Butt, Katherine Carol, Jordan Danis, Melissa Diaz, Mitchel Domovsky, Frances Dottino, Marie Duard, Noor (Nora) Ennab, Lindsey Gonzalez, Jane Huang, Paula Jurado, Oumy Ka, Shufan (Theresa) Kong, Raymond Lam, Gary Law, David Lee, Ying Ying Liang, Tommy Lin, Niurka Liranzo, Cynthia Liriano, Dorothy Marcello, Sarina Mordukhayeva, Sahida Nasim, Justin Nus, Ji-Won Oh, Cristina Onea, Erica Ortiz, Kiara Ramirez, Ketty Sierra, Avinash Sukhee, Patricia Tapia, Chun (Alex) Wong, and Xunyan Zheng.

Finally, a few personal acknowledgments. To Mom, Dad, Steven, Scott, Craig and our growing families, as well as to my close friends Chip, Wallace, and Alexei: your unwavering support kept me grounded over these years of work. To my beautiful partner Artem: while your role in this story appeared toward the end, I can never thank you enough for your love and faith in me; in those inevitable moments when I felt overwhelmed, you always reminded me why this project mattered for sexual dissidents everywhere—and why I was the one to do it. Finally, this dissertation is dedicated to the memory of two friends who were unable to see it through to its conclusion. To Herb Krauss: while our acquaintance was far too short, I am deeply indebted to your sage advice on thinking visually. To my friend Brandt Cannici: I continue to draw inspiration from your restless enthusiasm for pushing the limits.
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Introduction

To come out is… to make oneself into a convenient screen onto which straight people can project all the fantasies they routinely entertain about gay people, and to suffer one’s every gesture, statement, expression, and opinion to be totally and irrevocably marked by the overwhelming social significance of their openly acknowledged homosexual identity.

David M. Halperin (1995, p. 30)

Progress in science is won by the application of an informed imagination to a problem of genuine consequence; not by the habitual application of some formulaic mode of inquiry to a set of quasi-problems chosen chiefly because of their compatibility with the adopted method.

Daniel N. Robinson (2000, p. 41)

I presume a truth value to social psychology experiments. [At the same time,] I mean… to get dirty with the data in these experiments, to experiment with what it might mean to let this kind of positivist social science ‘play its interpretive part’ in history rather than writing it off as insufficiently historicist, insufficiently constructivist, or insufficiently critical of homonormative science. (pp. 68-69)

Peter Hegarty (2018, pp. 68-69)

That both history and culture play a role in shaping laypeople’s understandings of sexuality is a principle broadly acknowledged across the social sciences (Adamczyk, 2017; Agocha, Asencio, & Decena, 2014; Altman, 1982, 1996; Corrêa, Davis, & Parker, 2014; Hostetler & Herdt, 1998; Pettit & Hegarty, 2014; Vance, 1989, 1991). Precisely what those roles are, however, as well as how they may be investigated, depends in turn on what the term sexuality is meant to signify—a foundational question often elided by psychologists despite the ubiquity of this key concept across the discipline (Johnson, 2015). At minimum, it may be
argued that definitions of sexuality depend on foundational assumptions about the ways in which sexual identities, desires and practices are (or can be) configured. Beyond this first premise, however, definitions diverge markedly in the content and consequences of those foundational assumptions.

To the extent psychologists define sexuality as reducible to a natural, biological force upon which cultures act, investigation of laypeople’s beliefs about sexuality presumes an ontologically real taxonomy of nonoverlapping and fixed categories representing discrete configurations of sexual desires and sexed bodies, or *sexual orientations*. Based on this set of assumptions, sexual orientation is properly understood as synonymous with sexuality, variously regulated by larger cultural forces and institutions through processes of normalization or repression (Vance, 1991). Within this logic, sexual identities and behaviors are understood in terms of their correspondence to this underlying, naturalized sexual orientation. An appropriate research focus to laypeople’s understandings from this perspective are investigations of *individually held evaluations* of ontologically real, yet usually socially non-normative sexual orientation categories. A well-established area of research emblematic of this approach explores heterosexually-identified laypeople’s (negative) attitudes about homosexuality—popularly referred to under the umbrella term homophobia but also variously by terms such as homonegativity or sexual prejudice (e.g., Herek, 1984, 2004, 2009; Weinberg, 1972).

By contrast, to the extent psychologists define sexuality as (at least in part) a *product* of cultural ways of knowing and communicating, laypeople’s beliefs about *all* sexualities, inclusive of heterosexual, homosexual and queer\(^1\) experiences alike, are constructed through

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\(^1\) I use the term *queer* in this context to refer all sexual identities, behaviors and desires falling outside of those associated with a normative heterosexuality. This term thus serves as a more expansive expression relative to the standard shorthand LGBT—lesbian, gay, bisexual, and
complexly interwoven, historically contingent local and transnational political, economic, religious, and institutional discourses and structures (Foucault, 1984/1978; Kitzinger, 1987; McIntosh, 1968; Plummer, 1981a; Weiss & Bosia, 2013; Weeks, 1981; Vance, 1989). From this latter perspective, sexual orientation categories are not presumed to reflect ontological reality but instead shared discourses for making meaning of sexual identities, desires and behaviors. As such, an appropriate focus of psychological investigation involves laypeople’s representations of those sexual orientation categories—that is, with the meaning and structure of laypeople’s beliefs. As I will argue throughout this dissertation, this choice of epistemological lens—whether one of individual evaluation or of constructed representations—has important implications for both psychological theory and methodology.

First, it is important to recognize that these two epistemological approaches have not historically been accorded equal consideration by psychologists. The dominant approach in the social psychological study of what has been broadly termed lesbian, gay, bisexual and transgender (LGBT) issues has been the investigation of (primarily) heterosexually identified laypeople’s attitudes toward (again, primarily) homosexuality or homosexual people. This model of intergroup prejudice, relying as it does on the presumed ontological reality of discrete sexual orientation categories, thus aligns with an individual evaluation paradigm. These investigations have often concerned how heterosexuals’ attitudes correlate with other individual factors including, but not limited to, religiosity (Herek, 1988; for a meta-analysis, see Whitley, 2009); self-esteem (e.g., Falomir-Pichastor & Mugny, 2009); right-wing authoritarianism (Haddock, transgender. Halperin (1995) defines queer as “whatever is at odds with the normal, the legitimate, the dominant. There is nothing in particular to which it necessarily refers. It is an identity without an essence. ‘Queer’ then, demarcates not a positivity but a positionality vis-à-vis the normative … [Queer] describes a horizon of possibility whose precise extent and heterogeneous scope cannot in principle be delimited in advance.” (p. 62, emphasis in original)
Zanna, & Esses, 1993); disgust sensitivity (Inbar, Pizarro, Knobe, & Bloom, 2009); prior contact with homosexual people (e.g., Fazio & Zanna, 1978; Pettigrew & Tropp, 2006; Bartoş, Berger, & Hegarty, 2014; Herek, 1988; Herek & Capitanio, 1996); gender role norm endorsement (e.g., Lehavot & Lambert, 2007; Schope & Eliason, 2004; Storms, 1978); hypermasculinity (Barron, Struckman-Johnson, Quevillon, & Banka, 2008); and sexual identity threat (e.g., Schmitt, Lehninger, & Walsh, 2007). Furthermore, the concept of universal, naturalized sexual orientations subsequently constrained by cultural norms has the methodological benefit of enabling the standardization and localization of attitude instruments across cultural contexts for comparative purposes (e.g., Dunbar, Brown, & Vuorinen, 1973; Haney, 2016; Jäckle & Wenzelburger, 2015; Lieblich & Friedman, 1985; van den Akker, van der Ploeg, & Scheepers, 2013).

Historical and cultural variation in laypeople’s understanding of sexuality presents theoretical and methodological challenges to an individual evaluation paradigmatic approach, however. Laypeople’s degree of tolerance for homosexuality and homosexual people has been found to vary widely both within and across cultural and national contexts (e.g., Pew Research Center, 2013). Furthermore, public attitudes have appeared to be in flux in recent years both in a US context and other national contexts, disrupting a straightforward progression narrative of national trends toward increasing tolerance (GLAAD, 2018; United Nations Office of the High Commissioner for Human Rights, 2011, 2015; cf. Smith, Son, & Kim, 2014). In many cases these nonlinear patterns in laypeople’s degree of tolerance appear to mirror larger political shifts in ways that strongly implicate larger cultural factors beyond individual prejudice.²

² Recent years have seen several examples of political turbulence around same-sex sexuality. Bermuda became the first nation to revoke the legal right to marriage for same-sex couples less than a year after a legal ruling recognizing such unions (Specia, 2018). A decision by the Dehli
Psychologists’ implicit (and sometimes explicit) recognition of these shifting cultural meanings has generally translated into development and revision of ever more up-to-date assessment instruments over the decades (e.g., Herek, 1988, 1994; Hudson & Rickets, 1980; Herek & McLemore, 1997; Morrison & Morrison, 2002, 2011; cf. Lottes & Grollman, 2010; Raja & Stokes, 1998). Indeed, an increasingly common practice in the attitude literature has been to employ multiple attitude assessment instruments (e.g., Falomir-Pichastor & Mugny, 2009; Morrison & Morrison, 2011; Talley & Bettencourt, 2008).

This evolution in instrumentation has not corresponded to a similar evolution beyond an individual evaluation paradigmatic approach in how sexuality is represented in those instruments, however. Indeed, the implicit equivalence of sexuality with a taxonomy of sexual orientation categories has remained a constant feature of these instruments over the decades. Whether this widespread practice reflects commonality among individual investigators’ own representations or an uncritical (or simply pragmatic) reproduction of larger disciplinary practices, they convey an implicit (and sometimes explicit) set of sedimented and presumably universal meanings concerning sexuality. This trend is arguably most evident in the common practice of translating and adapting popular instruments for assessing attitudes toward homosexuality and homosexual people—in most cases, those developed and tested in (primarily)

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High Court in India finding Section 377 of the Indian Penal Code, which criminalized same-sex behavior, to be “illegal” in 2009 was overturned by the Indian Supreme Court in 2013; the Supreme court then reversed itself in 2018 (The Times of India, 2018). The city of Tokyo, Japan passed a comprehensive anti-discrimination bill in 2018, despite a continuing lack of any legal recognition of same-sex couples or discrimination protections nationally (Human Rights Watch, 2018).

3 For a comprehensive review of standardized instruments for assessing attitudes toward homosexuality and homosexuals, see Grey, Robinson, Coleman, and Bockting (2013). For an example of a more critical approach to attitude assessment informed by queer theory, see Massey (2009).
dominant English-speaking national contexts—for use across different cultural and linguistic contexts. One of the most prominent examples of this trend concerns widespread efforts to localize Herek’s (1988, 1994) now standard Attitudes Toward Lesbians and Gay Men (ATLG) scale across cultural and linguistic contexts, including Brazil (DeSouza, Solberg, & Elder, 2007); Chile (Cardenas & Barrientos, 2008; Nierman, Thompson, Bryan, & Mahaffey, 2007); China (Wu & Kwok, 2012); Columbia (Moreno, Herazo, Oviedo, & Campo-Arias, 2015); Japan (Horikawa & Oka, 2016); the Netherlands (Meerendonk, Eisinga, & Felling, 2003); Singapore (Detenber et al., 2007); and Turkey (Gelbal & Duyan, 2006).

In response to these limitations, a small but vocal number of psychologists have issued calls for cultivation of alternative approaches that reject transhistorical and transcultural definitions of sexuality in favor of more social constructionist approaches to theory and methodology (e.g., Agocha et al., 2014; Alldred & Fox, 2015; Johnson, 2015). From such an epistemological lens, attitude approaches in which evaluation is privileged over meaning elide the question of what is being evaluated. Assessment of attitudes toward homosexuality, predicated on investigators’ own role in discursively positioning heterosexuality as the norm against which homosexuality is compared (see Duggan, 2002; Schwartz, 2007), are thus revealed as foreclosing the potentially important investigation of variation in means laypeople actively construct about sexuality, inclusive of sexual orientation categories. Indeed, as the preponderance of evidence across the social sciences increasingly challenges the concept of a universal understanding of human sexuality, the importance of investigating laypeople’s own beliefs becomes more apparent and pressing (e.g., Benedicto, 2008; Herdt, 1993, 1997; Jackson, 2007; Stephen, 2002). A social constructionist recognition of historical time and cultural complexity, Puri (2002) argues, ought to therefore entail “re-examin[ing] the meanings of
categories of sexual identity, their meanings and ramifications, and their possibilities and limitations across disparate settings” (p. 439).

In recent years promising new approaches for directly exploring meanings laypeople themselves construct about sexual orientation categories, or sexual orientation beliefs, have emerged in psychology. One common approach has been to survey laypeople’s constructed beliefs about the etiology of sexual orientation categories, particularly homosexuality (e.g., Lewis, 2009; Smith, Zanotti, Axelton, & Saucier, 2011; Oldham & Kasser, 1999; Overby, 2014); some have taken a cross-cultural comparative approach (e.g., Collier, Horn, Bos, & Sandfort, 2014; Furnham & Saito, 2009). Arguably the most promising direction in recent years, however, has been a growing body of empirical literature predicated on a cognitive model of psychological essentialism (Medin, 1989; Medin & Ortony, 1989; Rothbart & Taylor, 1992). This model has enabled a constructionist lens for investigation of laypeople’s constructed beliefs about an “essential” nature underlying sexual orientation categories (e.g., Haslam & Levy, 2006; Haslam, Rothschild, & Ernst, 2002; Hegarty, 2010; Hegarty & Pratto, 2001; Hubbard & Hegarty, 2014; Morandini, Blaszczynski, Ross, Costa, & Dar-Nimrod, 2015; Morton & Postmes, 2009). Early empirical evidence suggests the presence of cultural variability in the structure of these essentialist beliefs (Hegarty, 2002), suggesting the utility of methodological approaches sensitive to potentially complex structural variation both within and across cultural contexts.

**Sexual Orientation Beliefs as Individual Cognition: A Methodological Post-Mortem**

The foregoing epistemological and theoretical background is instructive for understanding and deconstructing my own early—and failed—attempt at localization of Haslam and Levy’s (2006) Essentialist Beliefs Scale (EBS) in a Japanese cultural context. The most
widely used instrument for measuring laypeople’s essentialist beliefs about sexual orientation categories, the current version of the EBS consists of 15 items intended to measure three dimensions: a belief in the discreteness of sexual orientation categories, a belief in the immutability of those categories, and a belief in the universality of those categories across time and cultures. Participant’s essentialist beliefs are operationalized by means of a six-point, forced-response Likert scale. Working together with Japanese colleagues, our initial goal was straightforward enough: translation, adaptation and pilot testing of a Japanese-language version of the EBS as a first step toward scale validation. My colleagues and I were forced to prematurely end our efforts during the pilot testing process, however, after obtaining low scale reliabilities and upon reviewing participant feedback and translation issues we encountered. The vexing question arose at the time as to whether the EBS—or indeed any other forced-response survey-based instrument—adequately allowed for the translation of sexual orientation concepts that originate in Anglophone (e.g., North American, Australia, and some European) cultural contexts for use in Japan. The question that did not occur to us at that time, however, was ultimately more illuminating: whether the EBS or other scale-based instruments were capable of capturing participants’ own constructed meanings about sexual orientation categories.

Methodologically, a tool that lacks detail may serve as a useful barometer but is a poor instrument for diagnosing structurally complex issues. To the extent a cultural context targeted for localization efforts differs qualitatively from that of the cultural context in which that instrument was first conceived and validated, instrument translation and adaptation must be viewed as both a linguistic and cultural process (Geisinger, 1994). Indeed, our initial recognition that institutionalized disciplinary representations of sexuality deployed in the EBS may have been inconsistent with local Japanese lay theories or even unintelligible to participants led us to
engage the process of translation and adaption carefully to avoid potentially spurious response data. At the same time, however, best practices for cross-cultural assessment require investigators to balance often conflicting disciplinary imperatives of cultural adaption with psychometric standardization (AERA-APA-NCME, 2014). Disciplinary pressures privileging standardization often lead to designs where the rich complexity captured by the construct “culture” is lost through its operationalization as an independent variable (Nagayama Hall, Yip, & Zárate, 2016). Similarly, such scale-based comparative approaches also potentially obscure distinctions among culture, ethnicity, race, and nationality (Cohen, 2007; Markus, 2008; Nagel, 2000; Wang & Sue, 2005).

A reliance on a standardized, forced-response Likert scale-based instrument such as the EBS (Haslam & Levy, 2006) across cultural contexts may additionally obscure the different ways laypeople make sense of and apply the sexuality concepts provided by investigators. Even when investigators have reason to believe the concepts deployed are similarly understood across contexts, laypeople in one culture may compare themselves with different others relative to those in another culture. This “reference-group effect” thus potentially further confounds investigators’ interpretation of the results of survey-based cross-cultural comparisons (Heine, Lehman, Peng, & Greenholtz, 2002). Indeed, feedback from Japanese undergraduate participants in our pilot centered not so much on a lack of conceptual understanding so much as a lack of fully formed beliefs or clearly defined referents. They had simply never thought about such questions before and, consequently, were unprepared to respond. Together with the translation and localization issues previously mentioned, these reference-group effects only add to the interpretive challenges facing researchers investigating laypeople’s sexual orientation beliefs within and across cultural contexts.
A more fundamental theoretical issue, from a lens of constructed representations, concerns how a focus on instrument standardization distracts from how researchers are applying concepts and developing methodological tools to address interlocking complexities in the meanings people across cultures associate with sexuality (Agocha et al., 2014). A shared target of investigations into laypeople’s etiological and essentialist beliefs, whether using the EBS or other instruments, has been to establish the predictive value of those beliefs for attitudes, reflecting a reliance on a cognitive model of beliefs as components of attitudes (Eagly & Chaiken, 1993, 2007; Haddock et al., 1993). Our previous use of the EBS, theoretically predicated on engagement with a cognitive model of sexual orientation beliefs as attitudinal components, implicitly relied on an ontological assumption about the reality of discrete sexual orientation categories, thus aligning our approach—albeit unintentionally—with an individual evaluation paradigm epistemologically at odds with a theoretical shift to meaning.

In what Hacking (1995) termed *looping effects*, laypeople exposed to forced-response instruments like the EBS are thus constrained to interact with institutionalized disciplinary representations of sexuality (i.e., as sexual orientation categories) provided by investigators. Laypeople may even change their self-understandings and actions based on the concepts and categories presented. Consequently, in something of a self-fulfilling feedback loop, researchers may end up uncritically producing the categories they are attempting to study (see also Alldred & Fox, 2015). As such, forced-response Likert scale-based instruments run the risk not only of being insensitive to differing cultural or historical meanings constructed by laypeople with sexuality, but also of reproducing a form of cultural and disciplinary chauvinism through a reliance on representations of sexuality provided by investigators. Given these issues, my Japanese colleagues and recognized our need for a radically different methodological approach
capable of both privileging and capturing the complexity of laypeople’s own constructed representations of sexual orientation categories.

A Critical Psychological Approach to Investigating Sexual Orientation Beliefs

Eventually, it became apparent that our initial efforts at scale localization reflected practices common to a larger internationalization movement in psychology—a movement that has come in for critique over the years for helping reproduce the hegemonic role of Western-oriented mainstream LGBT psychology and its ties to a US-centric style of sexual politics (Altman, 1982, 2001; Christopher, Wendt, Marecek, & Goodman, 2014; Puri, 2002). A smaller, parallel yet highly active global movement of critical psychology has been a major generative source for challenging core assumptions of such mainstream “international” approaches (e.g., Billig, 2008; Cherry, 1995; Fox, Prilleltensky, & Austin, 2009; Hook, 2004; Parker, 2011; Sullivan, 1984; Teo, 2014, 2015). At the same time, however, critical psychologists have also extolled the critical potential of first lesbian and gay psychology (Brown, 1989; Kitzinger, 1999) and, more recently, LGBTQ psychology (Clarke & Peel, 2007) and queer psychology (Minton, 1997; Riggs, 2007; Liu, 2017; cf. Downing & Gillett, 2011). Having first emerged out of marginalized experiences, critical psychology provides a promising position from which to differently approach the investigation of laypeople’s representations of sexuality (Stainton Rogers & Stainton Rogers, 2001). In recent years critical psychological approaches have been informed by, among other areas, the social and intellectual movements of social constructionism, poststructuralism and postmodernism (Danziger, 1997; Gergen, 2009; Stam, 2002) as well as overlapping subdisciplines of discursive, cultural, feminist, and queer psychologies (e.g., Liu, 2017; Parker, 2002; Rutherford, Capdevila, Undurti, & Palmary, 2011; Valsiner & Rosa, 2007).
While no single definition of critical psychology is likely to be sufficiently comprehensive given the variety of approaches subsumed under this umbrella term, at minimum they all begin with a questioning of universal truths or conceptualizations, rejecting the notion that problems, methods, interpretations, and applications are independent from the sociohistorical context from which they emerge (Richardson, 2007). Critical approaches thus necessarily operate at epistemological, theoretical, and methodological levels. Teo (2015) names several key features shared by critical psychological approaches. First, they entail an understanding of subjectivity not as an individual phenomenon but rather as a discursive production marked by societal power differentials along intersectional axes of structural privilege and discrimination. Second, they actively question the role of the discipline and practice of psychology in becoming an instrument of power through “psychologization”—processes through which psychological discourses infuse and come to dominate understandings of people (Rose, 1996). Third, critical approaches focus less on the functional relationship between isolated variables than on methodologies that facilitate exploration of problems of genuine concern; they entail development of methods for relevant problems that need to be addressed, rather than choosing problems because they can be studied within an accepted methodology. Finally, critical approaches do not accept the present structures of society as unchangeable realities, pursuing instead theories and methodologies capable of changing larger societal conditions.

A critical psychology perspective also questions individualizing approaches underpinning LGBT psychology’s engagement with the societal treatment of different sexualities. Unlike an individual evaluation paradigmatic approach of intergroup relations predicated on the presumptive ontological reality of discrete and distinguishable sexual
orientation categories, a critical approach begins with a conceptual deconstruction of those categories through identification of a historically and culturally contingent taxonomic system reproduced, at least in part, by psychologists. In no longer viewing negative evaluations as a phenomenon peculiar to the minds of certain individuals (e.g., homophobia), a critical psychological lens suggests an alternative approach of conceptualizing laypeople’s sexual orientation beliefs as products of cultural discourses, practices and social formations (Alldred & Fox, 2015). That is, rather than a cognitive approach presuming to excavate sexual orientation beliefs as if they were things residing in individuals’ minds, a critical psychological approach would enable investigation of the discursive processes through which laypeople’s understandings of conventions of sexual identity, behavior and desire are constructed. Through analysis of those processes, investigators can then infer the work done by social and cultural discourses in determining what is considered culturally normal, pathological, desirable, and undesirable (Weeks, 2003)—discourses tightly intertwined with the maintenance and reproduction of existing social structures.

Moving beyond a post-mortem of my previous efforts with Japanese colleagues to an alternative approach has required a shift away from a cognitive model of sexual orientation categories to one based on discourse will require what Robinson (2000) described as an “informed imagination”—new theories, conceptualizations, and methodologies to address laypeople’s engagement with discourses of sexuality as culturally complex, localized social products. From a critical psychological position, such a shift entails commitment not only to

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4 My critical use of the term “belief” is not intended to reflect a form of cognition internal to the individual, but instead as an instance in a continuous process of meaning-making on the part of the individual. As such, my use of the term “belief” may be construed as broadly interchangeable with terms such as “representation” and “understanding.” I have retained use of the term sexual orientation beliefs to place the current dissertation in conversation with the existing literature.
critique (deconstruction) but also to the reconstruction of history, theory and methodology (Motzkau & Jefferson, 2009; Teo, 2015). In terms of theory, this would involve an initial deconstruction and interrogation of core ontological assumptions in contemporary models of laypeople’s sexual orientation beliefs—in this case, a cognitive model of psychological essentialism (Medin, 1989; Medin & Ortony, 1989; Rothbart & Taylor, 1992)—followed by a reconstruction of that model predicated on recognition of the discursive construction of contemporary sexual orientation categories. Methodological innovation would similarly begin with a critical examination of the assumptions that undergird current and past methods and other research resources (see Holzkamp, 1983). In the current context, that means setting aside forced-response Likert scale-based instruments like the EBS in favor of a methodology for capturing the process of laypeople’s reproduction of cultural discourses of sexuality, inclusive of sexual orientation categories. Critical psychological approaches provide for a vast array of methodological alternatives to such instruments, including both quantitative (see Martín-Baró, 1994) and qualitative analytic methods (see Parker, 2005; Sirin & Fine, 2008).

**Current Dissertation: Aims, Approach and Outline**

In this dissertation I adopt a critical psychological lens to first epistemologically, theoretically and methodologically deconstruct currently dominant disciplinary approaches for understanding and empirically investigating laypeople’s sexual orientation beliefs—approaches that, in emphasizing the primacy of individual cognition and institutionalized disciplinary discourses of sexual orientation, remain insensitive to potential cultural variation in discourses of sexuality. I will mainly focus on critiques that promoted a poststructuralist, Foucauldian and feminist theory inspired, discursive approach within psychology (as opposed to the symbolic
interactionist accounts that were produced in sociology during the 1970s). Having done so, my primary task begins: to develop and test a critically reconstructed theory and methodology that privileges laypeople’s constructed representations of sexuality, inclusive of sexual orientation categories. Throughout these tasks, I position myself foremost as a psychological scientist, albeit one informed by a critical understanding of my role within the same disciplinary power structures that have produced the institutionalized discourses I seek to critique.

At the broadest level, this dissertation is structured into two parts based on the two distinct goals of this project: 1) development of an adaptable, critical methodology for the investigation of laypeople’s inductive potential beliefs across cultural contexts; and 2) application of this critical methodology through a mixed-method investigation of laypeople’s sexual orientation beliefs in the US and Japan. In Part I (Chapters 1-3), I construct an epistemological, theoretical and methodological framework for the investigation of laypeople’s sexual orientation beliefs. The primary aim in developing this critical methodology is a discursive instrument and approach broadly adaptable across cultural contexts. Part Two (Chapters 4-6) constitutes testing of a method and mixed-method analytic strategy based on this critical methodology through a cross-cultural comparative, experimental investigation of laypeople’s sexual orientation beliefs in two culturally distinct urban contexts: Tokyo, Japan and New York City, United States.

I begin in Chapter 1 by genealogically tracing a discourse of sexual orientation in LGBT psychology from a critical perspective. I demonstrate how critically oriented psychologists, drawing on the work of scholars across disciplines, have engaged a range of compelling social constructionist, feminist, poststructural and discursive critiques highlighting the ways sexuality has been shaped by socially-contingent systems of thought, to produce both
specific knowledgeabilities and subjectivities. I detail how these critical perspectives have been useful in challenging psychologists to question essentialist assumptions concerning sexual orientation categories, leading to alternative approaches focusing not on cognition but instead on discourse. My attempt at engaging these social constructionist positions leads me to introduce an approach of strategic social construction—one capable of holding the tensions inherent across the range of poststructural commitments represented by different strands of social constructionist thought while avoiding an individualizing approach to laypeople’s sexual orientation beliefs.

Equipped with this set of strategic social constructionist features, I proceed in Chapter 2 to critically reconstruct a cognitive theory of psychological essentialism (Medin, 1989; Medin & Ortony, 1989; Rothbart & Taylor, 1992), the dominant paradigm for the study of laypeople’s essentialist beliefs and precursor of Haslam and Levy’s (2006) Essentialist Beliefs Scale. Retooled to reflect an analysis of discourse rather than individual cognition, I then reinterpret one dimension of psychological essentialism: that of inductive potential, a consequence of essentialist thinking concerning the extent to which shared knowledge about category membership allows for inference of a wealth of associated information about specific category members. Critical reinterpretation of inductive potential, I proceed to argue, sets the stage for a new critical methodological approach capable of discursively investigating the constructed meanings and structures of laypeople’s beliefs about the inductive potential of sexual orientation categories, or inductive potential beliefs.

In Chapter 3, I describe a new critical “amalgam” methodology—one pieced together from multiple methodological components—for analytically inferring the presence of inductive potential beliefs from the rich structure of laypeople’s discursive representations. I present a priming strategy for activating participants’ own mental representations of sexual orientation
categories prior to an impression formation task. Rather than be constrained to simple evaluation of institutionalized disciplinary representations through forced-response scale-based instruments, I describe a diagram-based instrument for both qualitatively producing and quantitatively analyzing the complex structure and rich associative meanings indicative of laypeople’s inductive potential beliefs. Finally, I discuss unique challenges to, and potential mixed-method solutions for, the culturally competent interpretation of quantitatively significant patterns in these participant-generated diagrams.

Chapter 4 outlines elements of a two-part method adapted from this critical methodology and tailored for the comparative analysis of two cultural contexts: the US and Japan. After first providing a rationale for the likely presence of shared discourses of sexual orientation in both US and Japanese cultural contexts, I proceed to hypothesize a pattern in relation to two components of sexuality—sexual desire and romantic love—predictive of inductive potential beliefs about homosexual and heterosexual orientation categories. In the first part of the method I describe participant recruitment, materials and procedures for priming of US and Japanese participants’ representations of sexual orientation, an experimentally manipulated impression formation task, and the diagramming outcome instrument. I also detail operational definitions for four sets of quantitative outcomes based on distinct measurements afforded by the diagrams. In the second part of the method, I detail recruitment, materials and procedures for separate focus group reader response to the diagrams previously produced by the first groups of participants.

I first test these two hypothesized patterns across diagram-based outcomes quantitatively in these two contexts. Specifically, in Chapter 5 I analyze associations between the four sets of diagrammatic outcome measures with three binary predictors of experimental
condition, cultural context, participant gender. As the unique, nonlinear character of these sets of outcome variables and the exploratory nature of this diagram instrument indicated the utility of generalized linear regression (e.g., beta and quasi-Poisson) models, I provide brief explanations of these advanced regression models and report on model fit of the diagram data. I subsequently compare patterns across these regression model results against hypothesized experimental patterns indicative of inductive potential beliefs. Importantly, I also describe additional patterns along lines of cultural context and gender (and their interactions) as important context for these experimental findings. A separate Appendix details a follow-up set of regression analyses comparing cis-gendered, heterosexually-identified and queer laypeople’s inductive potential beliefs to supplement the primary analysis.

As identification of these quantitative patterns is not equivalent to explanation of those patterns, however, my ability to interpret these group-level patterns required an additional empirical step. I therefore approached these generated diagrams not only as quantifiable data but also as discursive products reflecting Study 1 participants’ mobilization of culturally available discourses of sexual orientation. In an effort to establish the credibility of my subsequent discursive interpretations of these quantitative patterns, in Chapter 6 I draw upon the lay expertise and cultural competence of a second sample of participants in both New York City and Tokyo to discursively interpret these experimental and additional cultural and gendered patterns. In so doing, I identify discrete discursive themes in relation to psychological, sociological, anthropological and historical research and theory relating to both local and transnational discourses pertaining to sexuality, gender, and societal structures in Japan and the United States. I then proceed to interpret the inferential statistical test results from Study 1 through these discursive thematic patterns.
Finally, in Chapter 7 I evaluate the critical amalgam methodology and analytic strategies tested with these US and Japanese samples in Part II (Studies 1 and 2). Much of this discussion is devoted to limitations in the current method, as well as the feasibility of adapting this critical amalgam methodology more generally in future psychological investigations of laypeople’s inductive potential beliefs, as well as sexual orientation beliefs more broadly, for use in other cultural contexts. As part of this discussion I discuss the promise and limitations of this critical amalgam methodology not only in providing an intuitive instrument for capturing laypeople’s rich, complex belief structures but also as an alternative to dominant forced-response scale-based approaches. I conclude by discussing implications and possibilities for this critical discursive methodology beyond the investigation of laypeople’s sexual orientation beliefs.

The narrative arc of this dissertation might best be described as one of contrasting representations. The critical lens I have adopted compels a heightened scrutiny of those doing the representing and those represented. The most direct tension this dissertation explores is that between institutionalized disciplinary representations of sexual orientation categories and laypeople’s own constructed representations. Yet in so doing this project also exposes long-simmering tensions between institutionalized representations of what constitutes the proper subject of empirical investigation within the discipline of psychology. Specifically, this dissertation echoes critical psychological calls for a shift away from individual cognition and toward an understanding of beliefs as a relational process embedded within broader cultural stories that tell us who we are—and who others might be. A final level of tension concerns a persistent imbalance favoring representations peculiar to Anglophone contexts over those of non-Western contexts that continues to mark our discipline. This dissertation project represents an effort—hopefully not a Sisyphean one—to provide a tentative solution for navigating these
multiple layers of representational dynamics while also acknowledging both the promise and frustrations of working within these inescapable tensions.
PART I

Epistemological, Theoretical, and Methodological Foundations
CHAPTER 1: Sexual Orientation, Culture, and Beliefs: A Critical Social Constructionist Approach

Enabling a critical psychological approach to the investigation of laypeople’s beliefs about sexual orientation categories first requires a thorough conceptual understanding of what a critical stance does—and does not—entail for the construct *sexuality*. The first part of this chapter is devoted to a genealogical exploration of tensions between critical perspectives and more mainstream biological determinist models in psychologists’ representations of sexual orientation over time, both in LGBT psychology and psychological approaches to culture. Specifically, I trace an evolving construct of sexual orientation across (sub)disciplines to reveal how historically embedded, politically inflected, and epistemologically conflicting positions of essentialism and social constructionism have stymied contemporary LGBT psychology’s capacity for advancing a more nuanced and intersectional theoretical understanding of sexuality, biology and culture. In so doing I highlight the ways critically oriented psychologists, drawing on the work of scholars across disciplines, have engaged a range of compelling social constructionist critiques of essentialist approaches to sexuality and culture. My attempt at working the tensions between these social constructionist positions leads me to introduce a more “strategic” social constructionist approach capable of transcending these heretofore intractable barriers and enabling a theoretical approach amenable to the critical investigation of laypeople’s sexual orientation beliefs.

Sexual Orientation Categories: A Tale of Two Epistemological Perspectives

Does sexuality have a history? Historian David Halperin (1990) opens his seminal
work One Hundred Years of Homosexuality with this provocative question. Psychologists working on issues relating to sexual orientation have generally responded to this question in one of two ways. One view holds that human sexuality is an “essence,” a natural evolutionary force that exists prior to social life and institutions; thus, while sexuality may be variously understood or regulated in different places and times, an individual’s sexuality itself has no history and no significant social determinants. Such a position of sexual essentialism relies for its logic on a dichotomy of nature vs. nurture, or an epistemological binarism of biological determinism and free will, in trying to understand human sexuality (Pettit & Hegarty, 2014). Two contrasting conclusions are deducible from this initial essentialist premise. From one perspective, deviation from a natural heterosexuality can only be conceptualized in terms of individual choice, rendering morally suspect individuals observed to do so. Alternatively, a second perspective based in essentialist thought holds that homosexuality is likewise a naturally occurring if comparably rare sexual orientation. It is therefore inappropriate and harmful to render homosexual people as objects of moral approbation or societal repression. The role of psychologist thus becomes to both assist this minority of non-heterosexual individuals in realizing their inherent sexual orientation—“coming out”—while also addressing what from this perspective can only be described as irrational resistance from other individuals and societal structures.

In contrast to the alternatively moralizing and emancipatory frameworks derivable from an essentialist nature vs. nurture paradigm, a second, critical view of sexuality is predicated on the assertion that what comes to be socially regarded as “knowledge,” and further the “reality” to which it is assumed to refer, is socially constructed (Berger & Luckmann, 1966).5

5 This bifurcation of “essentialism” and “social constructionism” has not been without
From this latter point of view the taxonomic categories that define our contemporary understanding of sexuality (e.g., ‘homosexual’ or ‘heterosexual) are not biologically ordained but rather products of historically and culturally specific systems of thought and practices; their meanings are dependent on the social, political, cultural and historical resources that are used to describe them (Foucault, 1984/1978; Kitzinger, 1987; McIntosh, 1968; Plummer, 1981a; Weeks, 1977). Some critical approaches deconstruct sexuality further, positing that even the direction of erotic interest itself—for example, sexual object choice (e.g., homosexuality, heterosexuality)—is not intrinsic to the individual but instead “constructed from more polymorphous possibilities” (Vance, 1991, p. 878). In this way societal discourses of sexuality have shaped sexual conduct and disciplined sexual desire (Alldred & Fox, 2015).

Critical approaches to the social construction of sexuality do not necessarily deny that biological capacity in some form (or forms) may be a prerequisite for human sexuality (Rubin, 1984; cf. Stein, 1999). Nor does it mean that sexual desires are determined exclusively by social environment and chance encounters (Peplau, Garnets, Spalding, Conley, & Veniegas, 1998; cf. Bem, 1996). Both these claims depend for their logic on a nature/nurture duality constitutive of essentialist approaches. A critical approach to sexuality instead begins from the premise that the biological and social are inextricably and developmentally intertwined (Fausto-Sterling, 1992, 2012; for a review, see Schmitz & Höppner, 2014). Physically identical sexual acts may have varying social significance and/or individual subjective meaning depending on how they are defined and understood by both groups and individuals embedded in different cultures and controversy, however. Kitzinger (1995) describes how this debate was “dogged with problems from the start, not the least among them difficulties over terminology. Both sides in the debate were named by the social constructionists, and “essentialist” quickly became a term of abuse, with scholars so labeled eager to defend themselves against” what they viewed as a willful mischaracterization of their positions (p. 136).
historical periods (Halperin, 1990; Vance, 1991). Indeed, from a critical perspective the process of research itself is implicated in this bio-cultural entanglement as “our constructed knowledges have real material consequences” (Barad, 1996, p. 183; see also Teo, 2015).

Yet the polymorphous possibilities implicated by a socially constructed sexuality do not in turn imply that sexual desires are “freely chosen” by the individual—and hence somehow fictional, trivial, unimportant, or not real—even when the sexual identity labels for describing those desires may push against more dominant social categories as individuals navigate a tension between desires for individual expression and a sense of belonging (Katz, 1995; Kitzinger & Wilkinson, 1993; Savin-Williams, 2001, 2014). Such caveats, apart from defending against critiques from an incompatible nature/nurture epistemic position, also highlight a key strength of a critical position of social construction: a productive deconstruction of “sexuality” in which behaviors, desires and sexual practices are decoupled from sexual identity (Johnson, 2015). As Pettit and Hegarty (2014) argue, a critical position of social construction situates a matrix of sexuality and identity within discrete historical periods punctuated by non-transitive events that in turn further highlight the changing meanings of sexual desires and practices (see also Padgug, 1979).

While critical psychological approaches to sexuality and culture share an epistemological shift away from the positivistic nature vs. nurture accounts that have historically defined psychiatric and sexological approaches and towards a greater reflection on social meaning and sexual subjectivity, debates over application of the social and cultural construction of sexuality in the social sciences are complex and span the varied domains of, among other areas, symbolic interactionism (Plummer, 1982) sexual script theory (Simon & Gagnon, 1967, 1973, 1984), and narrative approaches (Cohler & Hammack, 2007; Herdt & Boxer, 1996).
Within psychology, critical engagement with the construction of sexualities has been mixed, generally distinguishable along lines of subdisciplines faced with very different (if interconnected) historical challenges. Critically tracing these complex historical developments genealogically leads me to take a Kuhnian (1962/1996) approach of a normal science disrupted by a necessary (and productive) cycle of crisis points indicative of shifting epistemological paradigms and their differentially enabled and privileged theoretical frameworks.\(^6\) In the following two sections, I critically trace the construct of *sexual orientation* primarily through psychology, making note of important points of intersection with neighboring disciplines, after which I critically weave in how these developments played out in psychological approaches to culture.

It is worth pausing at this point to reflect on the structure of the genealogy spanning the next two sections.\(^7\) It is impractical to write histories of a construct of *sexual orientation* as it evolved both in LGBT psychology as well as the psychology of culture side by side to represent them as equal but competing subdisciplinary discourses. Even the notion of tracing developments chronologically is not straightforward, when some appear in different continents and languages at different times. Having no better recourse, I have therefore chosen to begin with psychiatry and LGBT psychology prior to socio-cultural psychological approaches, although the reader should not divine from this choice an implicit privileging of one body of

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\(^6\) Kuhn (1962/1996), in a 1969 postscript to his landmark thesis on the structure of scientific revolutions, describes that what is often referred to as a *paradigm* is better understood as a “disciplinary matrix” (p. 182). A disciplinary matrix, Kuhn argues, is a theory or set of theories that (largely) unify and shape communication within a scientific community. Importantly, a disciplinary matrix is comprised of, among other components, shared values, the importance of which “emerges when members of a particular community must identify crisis, or, later, choose between incompatible ways of practicing their discipline” (p. 184-5).

\(^7\) Foucault (1969/2002) defines *genealogy* as an archaeological excavation into the constitution of the modern subject as the result of historically contingent turns.
scholarship over another. At the same time, as Weeks (1998, p. 144) points out, attempts at writing a history of homosexuality can prove “foolhardy” unless we locate that history within broader socio-cultural discursive contexts. As such, rather than shape a history that promotes only a critical perspective, I have opted to present key developments in approaches to sexual orientation from multiple, often conflicting epistemological positions. Such an approach is not only intellectually evenhanded but also, I argue, better demonstrates the advantages of a critical psychological approach for understanding the potential and limitations of essentialist and critical perspectives.

**Psychiatry, LG/LGBT Psychology, and Sexual Orientation: A Critical Genealogy**

The origins of contemporary approaches to sexual orientation in LG and later LGBT psychology may be found in a historically unprecedented psychiatric uncoupling of sexuality from gender. Breaking with then-popular procreation-centric models among European sexologists and advocates alike of sexual inversion as a degenerate neuropsychiatric condition (Ellis & Symonds, 1897/1936; Hirschfeld, 1914/2000; Ulrichs, 1898/1994; von Krafft-Ebing, 1886/1930), Freud, in his groundbreaking *Three Essays on the Theory of Sexuality* (1905/1962), posited a “polymorphously perverse,” biologically and psychologically bisexual constitution theorized to underpin *all* human sexuality from birth (p. 57). He went further, clearly distinguishing between a “sexual object” and a “sexual aim” in understanding the subsequently varied, socially-constrained (and often repressed) developmental manifestations of this inborn, biologically located sexual “drive” (see also Havelock Ellis, 1905). Halperin (1990) observes from this profound and historically innovative shift that:

> The conceptual isolation of sexuality *per se* from questions of masculinity and femininity made possible a new taxonomy of sexual behaviors and psychologies based
entirely on the anatomical sex of the persons engaged in a sexual act (same sex vs. different sex); it thereby obliterated a number of distinctions that had traditionally operated within earlier discourses pertaining to same-sex sexual contacts and that had radically differentiated active from passive sexual partners, normal from abnormal (or conventional from unconventional) sexual roles, masculine from feminine styles, and pederasty from lesbianism: all such behaviors were now to be classed alike and placed under the same heading. (p. 16)

Freud’s (1905/1962) concept of what would later be popularly known as “sexual orientation” provided some a radical, even liberatory, sexual framework. However, certain of Freud’s followers who sought to pathologize homosexually attracted people rejected such a framework, suggesting that homosexual orientation was a congenital failure in normal development (for discussion, see Dean & Lane, 2001; Taylor, 2002). Thus, by the 1950s Freud’s model of sexual orientation development was reformulated, resulting in the conceptually regressive view that emergent same-sex desire was “a radical departure from normalcy, a psychical error producing deviant tendencies” in the selection of appropriate sex objects (Dean & Lane, 2001, p. 14). It was this new sexual taxonomy that became enshrined as a working concept in the social and physical sciences over the course of the twentieth century (see Rosario, 1997, for a review). Consequently, and perhaps unfairly, with the later rise of a Gay Liberation Movement and its successors (of which many psychologists took part), Freud’s original work has been chastised for the normalizing and derogatory effects of positioning homosexuality as developmentally inferior to heterosexuality (Drescher, 1996).

Beginning in the mid-twentieth century, however, efforts to maintain this naturalized conception of “the homosexual” as a discrete, pathological entity were rendered increasingly tenuous amidst emerging critiques throughout the social sciences. Alfred Kinsey and colleagues’ (1948) landmark sexological research arguably opened the door to the idea that heterosexual and homosexual people were not clearly distinguished (or distinguishable). In selecting a 7-point
continuous measure for his Heterosexual-Homosexual Rating Scale, Kinsey and his colleagues were able to demonstrate how the two sexual orientation categories overlapped in ways that undercut arguments about natural kinds, first with men (1948) and later with women (1953). While the rapid ubiquity of the “Kinsey scale” among laypeople attested to the revolutionary appeal of his non-categorical approach, similar critiques also soon emerged across the health and social sciences. Evelyn Hooker’s (1957) groundbreaking psychiatric research constituted a powerful reversal of the Rorschach test, utilizing it not as a projective instrument for peering into the presumably deviant personalities of homosexuals, as had become standard, but rather as a means of revealing the stereotypes and assumptions of psychiatrists who assumed that a distinct “homosexual personality” existed and could be detected (Hegarty, 2018). In sociology, Mary McIntosh (1968) pointed out that if homosexuality is a condition (like cancer or diabetes), people either have it or they don’t. Yet mounting research evidence failed to support such a claim, she argued, suggesting instead that sociologists were pursuing inappropriate questions about the etiology of homosexuality. If homosexuality were not a condition, McIntosh reasoned from a role theoretical position, it became necessary to disentangle same-sex behavior from “the homosexual” as socially constructed role. These early efforts presaged a major shift toward a problematization of the prior pathologizing paradigm of homosexuality-as-social-problem.

Yet even as recognition of the role played by the social construction of sexuality began to spread throughout the social sciences, the disciplines of psychiatry and psychology remained conspicuously sluggish in adopting critical perspectives. It was common among Gay Liberation figures to argue that this apparent reticence might be expected as “homosexuality” was manufactured as a psychologically repressive category through penal and psychiatric processes (Hocquenghem, 1978/1993). Among some more contemporary critical and feminist scholars,
psychologists’ apparent unwillingness to abandon a pathology paradigm in the 1960s and early 1970s further revealed a fear of undermining a hegemonic social order—an order, coincidentally, in which psychological expertise played a vital role in regulating a naturalized heterosexuality, or what Adrienne Rich (1980) later termed compulsory heterosexuality. By the time homosexuality was removed from the Diagnostic and Statistical Manual (DSM-II) in 1973, gay and lesbian psychologists, many actively affiliated with the Gay Liberation movement, had by and large joined scholars in other areas of the social sciences in discarding and discrediting psychoanalytic approaches in favor of an affirmatory empirical research paradigm that sought to understand questions about both individual- and social-level barriers to the healthy development of a specifically homosexual identity. In a brief span of time an essentialist notion of sexual orientation gained paradigmatic dominance in psychology, conceptualized in terms of the realization of an authentic sexual self through the struggle of adopting an openly and specifically gay or lesbian sexual identity (e.g., Cass, 1979; for an example of this emerging essentialist paradigm in sociological social psychology, see Troiden, 1989).

Critical scholars were quick to point out, however, that affirmational approaches to sexual orientation categories carried with them several conceptual problems for sexual identity that threatened to undermine the goals of the fledgling Gay Liberation movement in the United States. A conceptual separation of sexuality from race constituted a particularly contentious

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While the diagnostic category of homosexuality per se was removed in 1973, it was conceptually succeeded first by “sexual orientation disturbance” in the seventh printing of the DSM II in 1974, followed by the category “ego-dystonic homosexuality” in the DSM III in 1980. This newer diagnosis was removed a few years later with the publication of the DSM III-R in 1987 although even then means of diagnosing homosexuality remained (Zucker & Spitzer, 2005). Such diagnostic possibilities met the demands of traditional psychiatric normalization and the calls to respect lesbians’ and gay men’s claims to be experts on their own experiences (Hegarty, 2018).
position in multiethnic contexts like the United States still very much in the throes of racial unrest. Proponents of “quasi-ethnic” gay identities, these scholars argued, effectively implied that subjective experiences of race and of sexuality develop independently from each other—a model that marginalized, if not rendered invisible, non-white gays (Epstein, 1990; Weeks, 1981). Critical scholars were also among the first to note unavoidable and potentially irresolvable tensions between their social constructionist critique of essential sexual orientation categories and increasingly dominant affirmational approaches. As Plummer (1981a) succinctly put it at the time:

[…] with all these categorizations comes the paradox: they control, restrict and inhibit whilst simultaneously providing comfort, security and assuredness. On an even wider scale, categorizations are attempts to order and structure the chaotic, complex and undifferentiated. To search for complexity is to undo categorization; to search for order is to categorize. Both seem necessary and thereby hangs the twist. (p. 29)

For Plummer, this “twist” is an enduring feature of US and European cultural contexts: an essentialized construct of sexual orientation (even with categories pluralized beyond a binary) cannot, from a critical perspective of social construction, guarantee anything about subjectivity, desire or behavior. At the same time, however, without the unified minority identity afforded by sexual orientation categories it is doubtful whether the sexual freedoms initially attained by Lesbian and Gay Liberation—to say nothing of the legal rights won in later years by an increasingly well-funded national LGBT movement—would have materialized (Johnson, 2015). Plummer’s warnings of these tensions appear to have been prescient; if anything, the

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9 Early stage theories of sexual development (e.g., Cass, 1979; Troiden, 1989) explicitly drew on earlier racial identity theories (e.g., Cross, 1971). In later years critical scholars adapted Crenshaw’s (1991) concept of intersectionality to enable more sophisticated examination of how individual subjectivities are constituted by mutually reinforcing vectors of race, gender, class, sexuality and other identities within the context of structural relations of power (Nash, 2008; Tomlinson, 2013; on the complexities of intersectionality, see also McCall, 2005; cf. Kwan, 2000).
proliferation of possibilities for sexual identity has only accelerated in recent decades as younger generations come of sexual age (Queen & Schimel, 1997; Savin-Williams, 2005). Later in this chapter I consider contemporary ramifications of these tensions for sexual orientation beliefs.

Sexual identity development was not the only focus of this newer affirmational approach, however, as psychologists began shifting their pathologizing gaze from the homosexual to the person holding negative beliefs and attitudes about homosexuality. While explanations and terminology varied, this new social pathology—most popularly known as homophobia—converged on an irrational refusal on the part of the individual to accept the “naturalness” of homosexuality (Herek, 1984, 2004, 2009; Weinberg, 1972). The theoretical orientation of many of the researchers investigating homophobia, Altman (1971) argued, reflected the sexual liberationist political philosophy popularized by gay and lesbian activists of the time—ideas that led some psychologists to embrace more radical, universalizing notions that contemporary (and homophobic) societal norms shaped individual attitudes (for a review, see Hegarty & Massey, 2006).

And popular it was: in the space of just under a decade the psychological literature had shifted markedly away from a pathology paradigm focused on detection of homosexuality to one focused on individual correlates of homophobia (Morin, 1977; Weinberg, 1972) is often credited for popularizing the term homophobia to describe this new counter-discourse. Other psychologists were quick to highlight flaws with the original concept of homophobia as a diagnosable clinical phobia, subsequently preferring terms such as sexual prejudice or homonegativity (see Herek, 1984, 2004, 2009). However, these terms—regardless of whether they locate the problem as one of fear, attitude, or prejudice—are generally interchangeable with the construct homophobia to the extent they all point toward an individual’s cognition as the core issue (Adam, 1998).

The influence of social constructionist, feminist and emerging queer thought may be gleaned as well from approaches to attitude assessment at the time. For example, Herek (1986, 2000) argued from a functional perspective that people may have different motivations for the homophobic attitudes they hold. He found that when viewing homosexual men as a constructed social category, they did not elicit the same function from participants (functional consensus) so much as a variety of functions (functional divergence).
Watters, 1986). The following decades would see a proliferation of measures of homophobia (and, later, anti-homosexual prejudice, among other terms) variously indebted to psychoanalysis, liberationist thinking, social constructionism, second wave feminism and the civil rights movement. The new scales typically included items that measured attitudes towards lesbians or gay men as a distinct minority group (Grey et al., 2013; for further discussion, see Hegarty, 2018).

Some scholars began to complicate this narrative, however, arguing that the concept of homophobia, in reinforcing an idea of mental illness, directed attention away from sexual oppression as a political problem rooted in social and cultural institutions and organizations in a way that “individualizes the entire problem of homosexual hostility” as one of personal pathology (Plummer, 1981b, p. 63; see also Adam, 1998; Kitzinger & Perkins, 1993). Having first constructed the homosexual as a new species (Foucault, 1978/1984), psychology had now constructed the individual “homophobe” (Kitzinger, 1987). Explanations of this newly identified and individualizing social problem of homophobia at times harkened back to psychiatric pathology models as well. Hegarty (2006) later noted that around one quarter of the body of research into homophobia at the time focused not on heterosexual people’s aversion to homosexuals or homosexuality but on queer (mostly gay male) individuals’ presumed aversion to themselves. Internalized homophobia, as this phenomenon came to be known, was subsequently employed by psychological clinicians as an explanatory mechanism for apparent failures of gay identity development (e.g., Lourea, 1985; Newcomb & Mustanski, 2011; cf. Sandfort, 1995) and inability to connect with other gay people (Frost & Meyer, 2009). The concept of internalized homophobia thus provided a new discursive tool for normalizing the sexual practices of LGB people (Kitzinger & Perkins, 1993; cf. Meyer, 1995, 2003; Meyer &
Deconstructing the conceptual appeal of the homophobic individual—whether internalized or not—reveals psychologists’ essentialist assumptions concerning group differences. Such assumptions are readily apparent in the design and interpretation of research instruments developed to assess correlates of homophobia and sexual prejudice over the past few decades (e.g., Dunbar, Brown, & Amoroso, 1973; Herek, Cogan, Gillis, & Glunt, 1998; Walch, Ngamake, Bovornsvakool, & Walker, 2016). More fundamentally, the relative lack of agreement on what, precisely, the attitude object represented by terms such as homophobia, homonegativity, antigay prejudice, etc. also implicated the essentialist thinking constituting these concepts (Hegarty & Massey, 2006; Lottes & Grollman, 2010). While these authors focused on both social and individual factors associated with one’s own or others’ negative attitudes toward homosexuality and homosexual people, the instruments deployed in these studies also implicitly assumed the ontological naturalness of the homosexual individual, and, consequently, discursively located homosexual people as a distinct and distinguishable minority group.

Consequently, and counterintuitively, as Hegarty (2018) reviews, “psychologists deemed agreement with statements that homosexual and heterosexual groups were similar, that homosexuals were diverse rather than politically unified, that homosexuality was natural rather than chosen, and that lesbians and gay men posed no threat to the larger heterosexual society as evidence of non-prejudiced attitudes” (p. 13; emphasis in original). Indeed, many of the views expressed by critical sexual theorists most associated with challenging heteronormativity would ironically meet the above criteria for sexual prejudice (e.g., Warner, 1999; Halperin & Traub, 2009).

At the heart of these affirmational approaches to both sexual identity development and
homophobia lies an assertion that contemporary categories of sexual orientation (e.g., heterosexual and homosexual) are appropriate categories to apply to individuals. From such a position, is it legitimate to inquire into the origin of heterosexual or homosexual development as well as the causes of homophobia in the individual, as there are assumed to be objective, intrinsic, culture-independent facts about what a person's sexual orientation is (Stein, 1990). These facts are thought to be determined by some (usually undefined) combination of hormones, genetics or neurological structures, a position often supplemented by acknowledgement of the shaping of these determinants by social factors.12

From a critical perspective, however, locating problems of sexual identity and homophobia as internal to the individual takes insufficient account of how social contexts limit individuals’ capacities or complicate their desires to live life in the ways psychological identity development theories describe as desirable, healthy, or mature (Hegarty, 2018; Kitzinger & Perkins, 1993). It is in this context that the work of French historian Michel Foucault arguably left the most lasting impact among critically-oriented scholars across disciplines, for the simple reason that he offered perhaps the most sophisticated and enduring explanation of the social regulation of sexuality. Contrary to the stance of Gay Liberation activists and affiliated psychologists, Foucault (1978/1984) radically argued that attempts to claim essential, “natural” gay and lesbian identities effectively reduced accounts of same-sex sexuality to the same

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12 A prime example of this noncommittal yet fundamentally essentialist nature/nurture framing may be found in the American Psychological Association’s (2008) most recently published explanation of sexual orientation: “There is no consensus among scientists about the exact reasons that an individual develops a heterosexual, bisexual, gay or lesbian orientation. Although much research has examined the possible genetic, hormonal, developmental, social and cultural influences on sexual orientation, no findings have emerged that permit scientists to conclude that sexual orientation is determined by any particular factor or factors. Many think that nature and nurture both play complex roles; most people experience little or no sense of choice about their sexual orientation.”
essentialist, biological “drive” long associated with pathology; that affirmational models of both sexual identity development and homophobia often had recourse to pathology was therefore unsurprising and even to be expected (see also Plummer, 1982).

To avoid this conflation of affirmational and psychopathological approaches to sexual orientation, Foucault (1978/1984) argued instead for the denaturalization of sexuality through its reconceptualization as a set of historically constructed discourses, by which he meant not simply language in its linguistic form but rather “practices that systematically form the objects of which we speak” (1969, p. 49). These discourses, he argued, operated through both the mental health professions and state apparatuses, constituting “sexuality” as an object of knowledge and social regulation. Instead of seeing the relationship between society and sexuality as one of censorship and repression of some natural, libidinal energy waiting for release or authentic self-expression, Foucault argued that western societies are instead permeated, and in fact itself reproduced, by “a regulated and polymorphous incitement to discourse” (1978/1984, p. 34). Affirmational approaches, he argued, constituted a “‘reverse’ discourse” wherein “homosexuality began to speak in its own behalf, to demand that its legitimacy or ‘naturality’ be acknowledged, often in the same vocabulary, using the same categories by which it was medically disqualified” (p. 101). That is, Foucault did not view the oft vaunted liberalization of attitudes to sexual orientation in the last century as marking a progressive move away from repression; rather, this proliferation of discourses was enabled by a “new technology of sex” that established sex as a concern of the state and of all individuals within it (p. 116; see also Henrique, Hollway, Urwin, Venn, & Walkerdine, 1984/1998). The technologies of psychiatry and psychology, he argued, came in for special critique for their historically prominent role in this increased surveillance and disciplining of sexual activity and desire (see also Alldred & Fox, 2015; Henrique et al., 1998; cf. Chauncey,
1994, who persuasively argues that these sexual categories existed in popular discourse prior to their psychiatric and psychological codification.

In later years Foucault’s insights came in for a variety of critiques and refinements. Prominent critical and feminist scholars, while agreeing with Foucault’s assertion that sexuality and power are coextensive, nevertheless critiqued what they saw as his essentializing assumption of a body prior to and written upon by discourse, arguing instead for materiality itself as a discursive effect (Butler, 1990; Fuss, 1991; Sedgwick, 1990; cf. Irigaray, 1993, on her notion of sexual difference).\(^{13}\) The distinction between discourse and cognition—the “discursive turn” (or “linguistic turn”)—also became a key strand of social constructionism that offered a radical critique of a dominant trend in the 1980s and 1990s to understand social behavior in terms of cognitive processes that interrogated the very rationale for empirical science (e.g., Frith & Kitzinger, 2001; Potter & Wetherell, 1987). The legacy of this critical body of work for contemporary scholars has been defined by interpretations of the identity category “homosexual” as a historical invention brought into being by the disciplinary practices that culminated in scientific approaches to the study of sexuality—what Foucault (1978/1984) termed the will to know and compulsion to tell the “truth of sex” (p. 58). In questioning the naturalness and psychologization of sexuality, these critical scholars effectively called for a shift away from questions about the aims and objects of desire in favor of an understanding of bodies and of pleasures that would not presume a prior psychoanalytic or psychological subject.

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\(^{13}\) For example, Butler (1990) takes Foucault’s social constructionism to task for its apparent denial of a possibility for individual agency, arguing that “when the subject is said to be constituted, that means simply that the subject is a consequence of certain rule-governed discourses that govern the intelligible invocation of identity. The subject is not determined by the rules through which it is generated because signification is not a founding act, but rather a regulated process of repetition that both conceals itself and enforces its rules precisely through the production of substantializing effects” (pp. 198, emphasis in original).
For contemporary critical psychologists, these critiques have translated to a focus on sexuality not only in terms of repression and restriction but also expression and resistance; both channels of power are linked to each other and can shape psychologists’ understanding of sexuality (Agocha et al., 2014; Teo, 2015). Older developmental models intended to explain the processes by which individuals come to excavate and actualize “authentic” gay, lesbian or bisexual identities have been powerfully challenged by narrative and life course approaches to sexual identity as meaning-making process (e.g., Cohler & Hammack, 2007; Davis, 2015; Hostetler & Herdt, 1998; Plummer, 1994). Contradicting earlier essentialist approaches that considered such cases exceptional rather than normative (Diamond & Savin-Williams, 2000), influential empirical studies have begun to document fluidity in the development of sexuality over the lifespan in both women (Diamond, 2003b, 2006) and, more recently, white men (Ward, 2015). Shared by these critical approaches is a criticism of mainstream psychological research in terms of both individualization of the sexual subject and, perhaps more importantly, illumination of the role that psychological knowledge itself has played in producing individualized and individualizing lesbian, gay and bisexual identities (Alldred & Fox, 2015).

**Intersections of Sexual Orientation and Culture: Complicating the Genealogy**

Woven throughout the first part of this genealogical review are threads of a dominant, liberal rights-based brand of gay identity politics peculiar to the United States and other contemporary western contexts. Yet even a cursory survey of the development of a discourse of sexual orientation in other world regions reveals a remarkable heterogeneity of discursive representations not only of human sexuality but even sexual orientation itself. To provide but one telling example, Japan’s first generation of Western-trained medical doctors were exposed to
early sexological and psychiatric theory and brought these perspectives back to Japan (e.g., Mori, 1909). The challenge of translating the concept “homosexuality” led to creation of the term *dōseiai* (literally, same-sex love)\(^{14}\) in the 1920s. Of interest was early sexologists’ conceptual classification of *dōseiai*—not as an individual problem of mental health but rather as one of many *hentai seiyoku*\(^{15}\) potentially affecting *anyone* (Habuto & Sawada, 1915). While the term *hentai* is often translated into English and other European languages as some variation of “perverse,” replete with its attendant moralizing and negative connotations (e.g., Frühstück, 1997), Pflugfelder (1999) points out that this Japanese term also indicates fascination with an “object of consumption and celebration” within popular culture (p. 288). As such, at least at the time of its introduction in Japan, *dōseiai* was not only associated with love—a decidedly positive human emotional state from a Western perspective—but also demoted from minoritizing pathology to universalizing peccadillo. That this and other culturally-specific episodes have for so long remained unexamined has prompted some scholars to wonder if “[p]erhaps it was the invisibility of the American nation within lesbian and gay studies that requires the most urgent critical attention” (Binnie, 2004, p. 26; see also Altman, 1982).

Growing recognition of the heterogeneity of cultural understandings of human sexuality has led in recent years to a broad interdisciplinary call for greater integration of transnational perspectives in research broadly (Canaday, 2009; Povinelli & Chauncey, 1999; Rupp, 2001) as well as in psychology (Agocha et al., 2014; Johnson, 2015). The invisibility of American culture in the psychological study of sexuality is, however, but one symptom of a discipline that remains uncritically bound to specifically U.S. and other so-called Western,

\(^{14}\) 同性愛
\(^{15}\) 変態性欲
college-educated, industrialized, rich, and democratic (WEIRD) contexts (Henrich, Heine, & Norenzayan, 2010; see also Berry, 2013; Cheung, 2012). As such, it is worthwhile now to turn our attention beyond sexuality briefly to illuminate how the social psychological study of culture\(^{16}\) has evinced a comparably stronger, if also complicated, embrace of critical social constructionist perspectives. The publication of Markus and Kitayama’s (1991) seminal article on cultural variability in psychological self-construal arguably marked a watershed moment for social construction theory in psychology. Informed by a social constructionist “turn to culture” across the human sciences in the latter half of the twentieth century (Chaney, 1994; Giddens, 1984; Nash, 2001), psychologists began to seriously inquire about the formerly presumed universality of fundamental psychological concepts of cognition, emotion and behavior (e.g., Sampson, 1988; Shweder & Bourne, 1984). These still-emerging cultural turns in psychology (Seeley, 2003) have arguably coalesced into two research traditions\(^{17}\)—cross-cultural psychology and cultural psychology—distinguished by their respective degree of commitment to the poststructural ramifications of social construction (Christopher et al., 2014; Ratner, 1997).

Advocates of a historically dominant cross-cultural psychology argued for culture as an index, or an additive set of variables for expanding beyond Western psychological theory and concepts to arrive at a universal human psychology (Berry & Triandis, 2006; Segall, Lonner, & Berry, 1998; Triandis et al., 1980). The methodological ideal of a paradigmatic cross-cultural

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\(^{16}\) Despite centrality of the concept within and across disciplines, there is no consensus on how to define culture (Strauss & Quinn, 1997). One of the most-cited definitions of culture is given by Geertz (1973), who argued for culture as “webs of significance,” or a system of symbols and meanings that order social life and outside of which human existence is incomprehensible (p. 5). As such, he argues, culture is not reducible to behaviors, or even patterns of behavior, that assume universal meaning. Rather, culture represents system-specific shared information or knowledge—that is, it is the *systemization* of shared knowledge that is the proper object of inquiry.

\(^{17}\) Greenfield (2000) includes a third category of *indigenous psychology* in her taxonomy.
psychology is to transplant (or localize) procedures established in one culture to one or more other cultures by means of direct comparison (Berry, Poortinga, Segall & Dasen, 1992). Cross-cultural researchers have historically assumed that at least some elements of culture should be measurable in a self-report format and have administered a variety of questionnaires designed to evaluate investigator-written items using standardized rating scales (e.g., Hofstede, 1980). Cross-cultural approaches more fundamentally rely on the etic premise that social facts are objective and knowable, albeit with the important qualification that any psychological construct should enter into the same pattern of empirical relationships across cultural contexts only insofar as that construct has the same (or similar) meaning across those contexts (Cronbach & Meehl, 1955; Hui & Triandis, 1985).\(^\text{18}\)

By contrast, an interdisciplinary approach of cultural psychology argues for culture as a process wherein culture and psyche are mutually constitutive and consequently irreducible to one or the other (Csordas, 1994; D’Andrade & Strauss, 1992; Shweder, 1990).\(^\text{19}\) Cultural psychology, its advocates claim, represents a return to an emic approach—represented by the work of Dilthey, Weber and Wundt—displaced by a disciplinary move to positivism and emerging at the interface of psychology, anthropology, history and linguistics, both as a critique of and an alternative to historically dominant cross-cultural approaches (Shweder, 1990; for a review, see Miller, 1994). At minimum, cultural psychological approaches view culture as

\(^{18}\) It also necessary to recognize, however, that contemporary cross-cultural psychology, now divorced from previous hegemonic incarnations of a behavioristic comparative psychology—a label now used to describe research comparing human and other animal species—is increasingly represented as constituting a pointed critique of traditionally ethnocentric (i.e., Eurocentric) research theory and practice, instead attempting production of psychological knowledge without the privileging of any particular cultural perspective(s) (e.g., Berry et al., 1992).

\(^{19}\) Some forms of cultural psychology resemble critical psychology approaches if we apply Teo’s (2015) criteria from the introduction (e.g., Ratner, 2012; Valsiner & Rosa, 2007).
collective-level phenomenon, constituted by both socially shared meanings, such as ideas and beliefs, and scripted behavioral patterns of norms and practices (Bruner, 1990; Kitayama & Uskul, 2011; Markus & Kitayama, 2010). However, other advocates argue further that the project of psychology is itself irrevocably bound up with hegemonic Western (and particularly U.S.) cultural concepts of a psyche/culture binary (Ingleby, 1995; Shweder, 1990). Consequently, from this perspective, full engagement with the poststructural potential of social construction theory renders cross-cultural psychological dependence on controlled experimental design—and consequently cultural comparisons of any sort—at best problematic and at worst wholly untenable (Ellis & Stam, 2015; cf. Greenwood, 2004; Ratner, 1997).²⁰ ²¹

What do these diverging cultural turns and their respective embrace of social construction mean for the psychological study of sexuality? Answering this question requires a

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²⁰ Cultural psychologists endorsing such poststructural arguments against experimentalism often base their views on a contemporary reading of Wundt’s (1900-1920) concept of *Völkerpsychologie* (folk psychology). According to this position, Wundt maintained that social psychological phenomena, the subject matter of *Völkerpsychologie*, could not be investigated by individual methods (which he associated with the experiment) but must be explored via comparative–historical methods (Ellis & Stam, 2015; see Danziger, 1983). However, Greenwood (2003) argues that it is anachronistic to attribute such a view to Wundt as the latter appears to have had little interest in the experimental analysis of the time- and place-specific (or *diachronic*) social psychological dynamics of culture. Rather, most of Wundt’s arguments focused on the inappropriateness of experimentation for the study of whole languages, myths, and customs because such entire (*diachronic*) cultural domains can neither be manipulated (i.e., controlled) nor investigated by means of then-fashionable introspective experimental methods.

²¹ A prime example of this epistemological disagreement among self-identified cultural psychologists may be found in responses to the 1991 paper by Markus and Kitayama. Some scholars (e.g., Miller, 1994; Shweder, 1999), including the authors themselves (Kitayama & Markus, 1995), explicitly locate this early work within the tradition of cultural psychology. A more poststructurally-oriented cultural psychology would necessarily contradict such framing, however, as the experimental methodology promoted by the authors is rendered epistemologically incompatible with a strong poststructural commitment. Greenfield (2000) counters such a claim, however, arguing that while it is true cultural psychologists rely much less on ‘packaged’ or indexical variables in their research designs, such a claim does not necessarily rule out the possibility of methodologies that draw upon cross-cultural experimental methods.
critical focus on the intersections of culture and sexuality—work largely conducted at or beyond the disciplinary borders of psychology with respect to systems of social or economic organization, discourses, orthodoxies, evaluative categorizations, codifications and cultural norms. Most cultural scholars agree that sexuality is structured, regulated, and shaped in all societies. Of these, some scholars, while agreeing with the basic theoretical arguments of social construction, nevertheless note that most evidence about sexual formations from the anthropological and historical research literature falls into a handful of patterns reflective of larger socio-logics (Adam, 1998; Boswell, 1980). The emergence in recent decades of a wealth of new or rediscovered data on sexuality across cultures has however motivated social scientists to revise their definitions of what is normal, what is alternative, and what is pathological (Schlegel, 1989, 1994). As such, Vance (1989) argues that “[b]ecause a sexual act does not necessarily carry with it a culturally shared social meaning, it follows that the relationship between sexual acts and sexual identities is not a fixed one, and it is projected from the observer’s time and place to others at great peril” (p. 163; see also Herdt, 1997; Hostetler & Herdt, 1998; Muñoz-Laboy, Sandfort, & Yi, 2009). Given such variability in the cultural organization of sexuality, according to Weeks (1998),

the question ultimately posed is why do certain categorizations of homosexuality emerge in certain cultures and not in others… That is a historical and sociological question; it is, ultimately, also a political question. For if homosexuality cannot be seen as existing in a timeless configuration, and contemporary forms have traceable

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22 Documentation of different formations of sexual difference (e.g., male vs. female), gender difference (e.g., masculine vs. feminine), and sexuality (e.g., heterosexual vs. homosexual) across world regions. For example, there is historical and cross-cultural evidence of the existence and traditions of third (or more) genders (Herdt, 1993), such as the hijra in India (Herdt, 1997), the bakla in the Philippines (Benedicto, 2008; Chng, Wong, Park, Edberg, & Lai, 2003), the muxe in Oaxaca, Mexico (Stephen, 2002), and understandings of phet in Thailand (Jackson, 2007), as well as others, such as the two-spirit people found in some Native American cultures. That not all cultures subscribe to Western binary views of gender has profound implications for the construct of sexual orientation.
historical roots, then attitudes, beliefs and social and cultural patterns can and will change again, not simply as a reflex to structural change but through human action. (p. 133)

That is, if sexuality does not exist independently of culture, it is instead a cultural production. Further, if sexual categories give people access to themselves as meaningful subjects of their experiences (Halperin, 1990), those same categories must also serve as lay epistemologies for the continual (re)production of beliefs about sexuality more generally.

A growing critique of the current state of LGBT studies has further been fueled by interest in globalization in recent years. Arguably the one scholar who most pushed questions of globalization to the fore in sexuality studies, Dennis Altman (1982, 1996) has argued that globalization has led to an Americanization and homogenization of cultural discourses concerning sexuality internationally. And while he did not argue for an essentialized, universal progression narrative of gay identity development, the implication of his argument is that an increasingly globalized gay culture at the turn of the twenty-first century represents a form of false consciousness, where “the West” is seen as the original and “the rest” are collectively seen as a “bad copy” (Halperin, 1990).

Several scholars have critiqued Altman’s stance, however, arguing that globalization does not lead to simple one-way transmission of sexual orientation categories and culture across the globe (Binnie, 2004; Tomlinson, 1999). In the first place, there is no singular American “homosexuality” or “heterosexuality”—these seemingly distinct categories are fractured by intersections of geography, race, gender, and class (Barnard, 1999; Boellstorff, 2012; Tan, 2001). Furthermore, groups sometimes negotiate, contest, revise, exploit, reinterpret, borrow, and create cultural forms or “invent traditions” (Hobsbawm & Ranger, 1983, p. 25); the agentic appropriation and reinterpretation of a Western sexual category-based global discourse of gay
identity in local cultural contexts may even serve as a way out of an almost universal form of marginalization (Binnie, 2004; Tan, 2001; Phillips, 2000). Despite these degrees of freedom, it is also important to acknowledge that deeply embedded cultural meanings may remain highly resistant to change (Strauss & Quinn, 1997). Within this broadly shared critique, then, Western discourses of sexuality do not merely displace indigenous discourses. Rather, Western discourses of sexuality often interweave with and become (re)interpreted through both local professional and personal meanings of genders and sexualities (Boellstorff, 2012; Hobsbawm & Ranger, 1983; Jackson, 2007; Parker, 1999).

This transnational turn continues to challenge Western scholars of sexuality, however, particularly in encounters with Asian contexts (Binnie, 2004; Chiang & Wong, 2016). Direct East/West comparison is often compromised by reliance on outdated cultural stereotypes and a fundamental reliance on a cultural binarism (Turiel, 2002). Several scholars have noted, for example, that Foucault’s (1978/1984) core argument that successive scientific and psychological

23 Fran Martin (1996) has termed such processes “hybridization,” or a melding of foreign and indigenous discourses “not as something that happens when transparently ‘Western’ identities impact on transparently ‘other’ cultures, but rather as the basic condition of cultures on both sides of the ‘East / West’ divide (wherever that might fall...) at this moment in the concurrent processes of decolonisation and the globalisation of economies” (p. 1; see also Bhabha, 1994). Berry (1996), however, argues that it is not enough to recognize “what Altman calls ‘indigenous ways of conceptualising sexuality and gender,’ or even to add on Fran Martin's recognition of various local forms of ‘gay’ and ‘lesbian’ in the non-West, important though both those things are. To do so simply continues to reinforce the post-Stonewall model of white, middle-class, respectable lesbian and gay cultures as the original, the true identity against which all others are measured, rather than recognising that, however powerful it has been and continues to be thanks to its alliance with consumer capitalism, it is as historically and locally specific as any other way of ‘conceptualising sexuality and gender’” (p. 1).

24 For example, scholarly writing in Japan often employs the term dōseiai (literally, “same-sex love”) as a translation of homosexuality (and vice-versa)—a problematic choice that ignores the historical, popular celebration of male-male eroticism as distinct from a relatively invisible (and at any rate understudied) female-female eroticism (McLelland, 2000a). Use of the English term homosexuality erases this distinction and substitutes a U.S.-situated understanding of same-sex desire mapped differently onto gender (Pflugfelder, 1999).
theories of sexuality were manifestations of a peculiarly western phenomenon—a *scientia sexualis* set against an eastern *ars erotica*—reflected a culturally limiting (and potentially Othering) preoccupation with a scientific conceptualization of sexuality that attempts to unlock the “truth” of sex through a thoroughgoing analysis of its “nature” (Chiang, 2010; Stoler, 1995; Johnson, 2015; Said, 1994).25 Similar cultural binarisms, along with their underlying essentialist logics, may be found in ostensible alternatives to an East/West binary, such as a bifurcation of “tight” and “loose” societies based on the social value placed on conformity (Pelto, 1968; see also Gelfand et al., 2011), or Confucian and non-Confucian societies on attitudes toward homosexuality (Adamczyk & Chen, 2015). In deconstructing an East/West cultural binary as ontologically unstable and overly reliant on an Othering discourse of *orientalism* (Said, 1978, 2004), however, scholars of sexuality across disciplines have opened the door to more nuanced and critical approaches to Asian cultures and sexuality (e.g., McLelland, 2000a, 2000b; Phlugfelder, 1999; Ryang, 2006).

Cultures thus do not exist in isolation from one another, nor do they necessarily map neatly onto national boundaries.26 Globalization in particular has had complex, spatially uneven

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25 In his *History* Foucault (1978/1984) contrasts a *scientia sexualis* characteristic of the Christian West with an *ars erotica* supposedly prevalent in the East. Foucault notes that in the Western tradition sex supposedly reveals itself as “a domain susceptible to pathological processes, and hence one calling for therapeutic or normalizing interventions” (p. 68). By contrast, he proffers a rather idealized description of an erotic arts wherein “pleasure is not considered in relation to an absolute law of the permitted and the forbidden, nor by reference to a criterion of utility, but first and foremost in relation to itself” (pp. 57-58). In juxtaposing the arts of eroticism that prioritized pleasure over reproduction against a disciplinary regime marked by modernist principles of enlightenment, science, truth and technologies of the self, Foucault thus effectively exoticizes the entirety of “the East” as a kind of pre-disciplinary utopia of pleasure—a move that arguably speaks more to Foucault’s own positionality than to any historical accuracy.

26 Conceptualizing nations as “containers” of culture not only tends to privilege universal processes and assumptions of cultural homogeneity (Greenfield, 2000) but also dismisses transnational flows of discourse by silencing the colonizing effects of cross-cultural approaches to the study of sexualities (Boellstorff, 2012). Yet while geopolitical boundaries do not always
effects on sexualities, including both large-scale, global structures of marketing and consumption, the mass entertainment industry, transnational flows of capital and other macroeconomic factors as well as the cultural logic of neocolonialism and the globalization of gay identity (Halperin, 2016; see Connell, 1998; Corrêa et al., 2014; Stoler, 1995). The rise of internet-based global communications platforms across world regions has enabled the formation of transnational sexual identifications and the deterritorialization of sexual networks and even the meanings, practices, and norms of sexuality itself (Parker, Garcia, & Muñoz-Laboy, 2014). At the same time, globalization has also led to transnational spaces of solidarity and community, such as international activism around HIV/AIDS (Binnie, 2004). Such transnational flows of sexuality discourse thus complicate claims of a clean bifurcation of WEIRD and other cultural contexts, along with their implied assumption of homosexuality as a Western export. Yet in the final analysis, critical psychologists also acknowledge the hegemonic positioning of Western—particularly U.S.—sexual categories within physical, ideological, and cyber realms, as well as how those categories continue to easily circulate relative to other conceptualizations of gender and sexuality (Corrêa et al., 2014). Consequently, taking a critical psychological approach means acknowledging the at times convoluted relationship between researchers’ own assumptions about culturally specific views or values and direct empirical evidence (Carrillo, 2004).

map onto cultural and linguistic boundaries, in some notable instances they are largely coterminous (e.g., Japan), a fact that informs the US / Japan comparison at the heart of this dissertation project (see Part II of this dissertation).

27 The purposeful use of the separate terms “globalization” and “transnational” here reflect original authors’ usage. I attempt to privilege the term “transnational” over alternatives such as “globalization” as the former term signifies the resilience and regulatory role of the nation-state.

28 This is a historically ironic turn of events given Vance’s (1991) observation that the rapid emergence of the AIDS epidemic in the early 1980s initially interrupted a previously growing shift away from an essentialist model of sexuality (i.e., a naturalized category which culture variously regulates) to one of social construction.
Intersections of Sexual Orientation and Culture: Limitations of Essentialist Approaches

The preceding genealogical exercise serves to highlight the ways in which critical psychological approaches to sexualities and cultures both empirically and reflexively complicate an essentialist narrative of naturalized sexual orientations. Yet despite publication of a steady stream of rigorous articles in both prominent and specialty peer-reviewed psychological journals on these topics, however, serious engagement with these critical and social constructionist approaches has remained the purview of a small minority of critical scholars within the discipline (for discussion, see Agocha et al., 2014; Gergen, 1973, 1985; Hare-Mustin & Maracek, 1990; Johnson, 2015; Pettit & Hegarty, 2014; Russell & Gergen, 2004). This is not to deny that in recent years psychological models of sexuality and sexual orientation have attained greater sophistication and mainstream appeal, with definitions of a more nuanced, multicomponent understanding of sexuality—comprising not only orientation but also identity, behavior, and desire—now ubiquitous even in introductory college textbooks (e.g., Yarber, Sayad, & Strong, 2012). Regardless, a focus on essentialist models of sexual orientation categories, predicated on their conceptualization as a discrete minority group, remain a persistent feature of the psychological literature (e.g., Rosario, Schrimshaw, Hunter, & Levy-Warren, 2009; for a review, see Eliason & Schope, 2007). That this is so may be explained in part by an ongoing tension

29 Proponents of biological determinist models have acknowledged the complexity of sexuality in noting variation and discordance between the categories of sexual orientation, sexual identity and sexual behavior. In so doing, some have conceptually distinguished sexual orientation as a natural fact, with sexual identity and sexual behavior assumed to be more readily shaped by social processes (Bailey, 1995; LeVay, 1993; Money, 1988; Swaab, 2005). As Johnson (2015) points out, “this suggests that biological models of sexual development are not completely blind to the importance of social context in the formation of sexual identity, behavior and practices. Rather, they are focused on the affective state of sexual desire or attraction as core to sexual orientation, leaving the seemingly less stable relationship between sexual identity and sexual
between liberal, essentialist models of sexual orientation with more radical approaches to the
subjectivity and social embeddedness of sexualities by psychologists and organizations born
within the tumultuous context of decades of a civil rights struggle in Western countries.

Many US-based psychologists and activists, wary of how psychiatric and
psychological discourses not only pathologized sexually nonconforming individuals but also
rendered invisible the experiences and growing unique (and political) cultures of lesbians, gay
men, and bisexuals, sought to actively affirm these non-heterosexual identities (e.g., Brown,
1989; see also Altman, 1982; Hay, 1990). Towards the end of the 1970s in the US, gay and
lesbian politics became organized less around the goal of liberating sexual practices and more
around the assimilationist goal of achieving equal civil rights (see D’Emilio, 1983; Kitzinger,
1987; Weeks, 1985). These affirmational, if assimilationist, efforts gained further momentum
with the rise of reactionary figures such as Anita Bryant who cast gay men and lesbians as a
threat to the American family. Yet these efforts took on both a metaphorical and literal life-or-
death urgency with the AIDS epidemic in the 1980s and 1990s. Official and media-based
responses were to try to link the epidemic with an already stigmatized community of gay men
while at the same time drawing a cordon sanitaire around them to protect “the public” (see
William F. Buckley, 1986, for a calculatingly alarmist version of this argument). It was in this
cultural climate that US-based activists and scholars alike felt a pressing need to “offer a kind of
defense against moral blame” through the assertion of minority identities—blame that many
scholars, journalists and activists argue translated directly into the critical withholding of medical

behavior to more socially informed fields of study. The problem with this approach, however, is
that scientific evidence has yet to conclusively support the proposition that sexual orientation is
determined by prenatal biological factors and that desire and attraction are not entwined with
identity and behavior” (p. 32).
and governmental resources in the fight against AIDS for years and at the cost of tens of thousands of lives in the US (Connell & Dowsett, 1999, p. 187; see also Clendinen & Nagourney, 1999; Shilts, 1987).30

Some scholars have gone as far as to suggest that it is not only practical but necessary to strategically engage in biological determinism to assert the value of nonconforming sexual practices or identity groups. For example, Spivak (1990) advocated for a kind of “strategic essentialism” which effectively bracketed issues of ontology (for instance of gender or sexual orientation). Doing so, she argued, would help facilitate strategic alliances around essentialist categories (e.g., “woman” or “gay”) for, among other goals, challenging patriarchy or heteronormativity. Similarly, a more self-consciously affirmative LGBT psychology, while still relying on scientific methods, has had a stronger orientation to producing outputs intended to meet the needs of LGBT people, individually and collectively. In pursuing, albeit implicitly, a strategic essentialist approach, these psychologists have positioned themselves as historical actors, to “right the wrongs” of a discipline historically reluctant to confront its own role in the pathologization of homosexuality.31

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30 It must be stressed that these social moves toward identity affirmation in the face of cultural exclusion were not universal, however. Consider that in the US the AIDS crisis came at a time when the gay liberation movement was on the rise; conversely, no such cohesive movement existed in Japan at this time. The first confirmed AIDS cases in Japan in 1985 were widely reported by the news media as “foreign homosexual men,” effectively othering AIDS as a foreign import that avoided implicit recognition of the existence of men who have sex with men in Japan. As such, and contrary to the situation in the US, the AIDS crisis in Japan was not dealt with through an insurgent political movement but rather through small community organization support efforts that largely avoided political implications of the crisis (Kazama & Kawaguchi, 2010).

31 A notable contemporary episode exemplifying the influence of a strategic essentialism within LGBT psychology concerns the controversy over a 2003 empirical article published in the journal Archives of Sexual Behavior by psychiatrist Robert Spitzer on the efficacy of sexual orientation change efforts, also known as reparative therapy. Spitzer had already decades earlier achieved something in the way of hero status among lesbian and gay activists for his pivotal role
For other feminist and LGBTQ affiliated scholars and activists, the poststructural destabilization of identity categories (e.g., “woman” or “gay”) promised through critical approaches potentially threatened a stable minority status from which it would be possible to claim social, economic and political rights (e.g., Bell & Klein, 1996; Jeffreys, 1996). The appeal of sexual orientation as reflective of stable identities is not an isolated phenomenon, however, joining that of other identity categories more broadly in all sites where rights are claimed. For example, such dilemmas of universalism versus cultural specificity relating to human rights have implications for what critics have termed Western feminism’s “colonial gaze” and the question of who speaks for whom (Daly, 1979; Narayan, 1997; cf. Brah, 1996). In recent years this threat has manifested in arguments from the social construction of contemporary Western sexual taxonomies being strategically co-opted and rebranded as a concerted neocolonial threat to national sovereignty by antagonistic non-Western state actors. The result of these international efforts has been, rather paradoxically, both criminalize and deny the indigenous existence of non-heterosexual identities, behaviors and practices (United Nations Office of the High Commissioner for Human Rights, 2011, 2015).32

in the removal of homosexuality as a pathological classification from the DSM-II (1973). It thus came as a shock to many that his 2003 study presented arguments in support of the efficacy of some forms of reparative therapy, making him a lightning rod in the larger culture wars of the moment. The journal’s editor, Kenneth Zucker, aware of the controversy sure to ensue, published Spitzer’s study (2003a) as a “target article” with the understanding that it would be followed by a series of peer commentaries, in turn followed by a reply by Spitzer. A total of 26 responses representing psychologists and psychiatrists—most highly critical of Spitzer’s sampling, methodology and interpretations—were published (Zucker, 2003). After initially defending his methods through an appeal to the scientific merits of interrogating conventional wisdom (2003b), Spitzer later not only reassessed his original study to acknowledge these critiques but felt compelled as well to issue an open apology addressed to the broader gay community (2012).

32 In a rebuttal to claims of a threat of a sexual orientation discourse to cultural traditions and national sovereignty posed by a universal human rights framework, United Nations High Commissioner for Human Rights Zeid Ra’ad Al Hussein, had this to say in a recent speech: “An argument I often hear from African and Arab representatives—sometimes even from senior
It is in this context of the broader civil rights movement and AIDS activism in the US and other Western countries that the rise of poststructural and critical perspectives in the early 1990s must be understood. From such a perspective, describing sexual practices and subjectivities as influenced by history and culture rather than nature might not only make those practices and subjectivities seem less credible and more likely to be stigmatized but also come across as undermining political efforts to hold governments accountable. The global reach and appeal of these essentialist arguments cannot be underestimated: the political liberalism organizing contemporary states not only established categories of identity but also rendered citizens intelligible to state machineries to the extent those identities reflected who those citizens “really” are (Greenhouse, 2009; Leve, 2011). Indeed, the same deterministic logic is at work in contemporary international human rights language, frames, and strategies that emphasize civil and political rights or that inscribe sexual identities under the overarching umbrella of minority identities (Petchesky, Corrêa, & Baghat, 2008).

For the purposes of the present dissertation, from a position of critical psychology, by treating the categories of sexual orientation as natural, innate, and unchangeable—even if only strategically for the sake of political expediency—science becomes complicit in maintaining existing power structures and systems (Butler, 1990; Foucault, 1978/1984). Furthermore, as colleagues in the UN—again hinges on the belief that there is no such thing as universal rights, only Western culture and values dressed up in ornate language that everyone else is forced to swallow. …I believe the influence of the West over other countries is exaggerated. However, what this does reveal is an anxiety over the direction of travel. Because lurking behind this attack is a deep-seated unease with the advancement of the rights of LGBTI people” (2017, October).

33 Reception of human rights instruments such as the Yogyakarta Principles (2007, 2017) provide a case in point of the persistence of the essentialist logic of identity. Although the Principles are explicitly crafted to avoid categorical language precisely to avoid cultural reification and colonization of sexual orientation categories, the term sexual orientation has nevertheless become synonymous with gays and lesbians (for discussion, see Corrêa et al., 2014).
Pettit and Hegarty (2014) insightfully note, there is an epistemological mismatch between certain psychologists’ implicit belief in their own capacity to use science as a tool of historical agency and the equally implicit rejection of the importance of historical time in their science. Ostensibly diametrically opposed positions of pathologization and gay affirmation are thus revealed to fit a single essentialist logic. Critical and feminist psychologist Celia Kitzinger (1995), in critiquing the role of psychology in depoliticizing same-sex relationships, innovatively highlighted this inherent fallacy and the danger of an emergent “gay affirmative” research trend rooted in essentialism:

Essentialist arguments signaled political disaster. First, they are defensive and apologetic: homosexuality must be tolerated because “we can't help it”; our sexuality is beyond our control and outside our responsibility. The plea is that our homosexuality be excused on the grounds of diminished responsibility and accepted on condition that it's not contagious—cannot be spread by seduction or indoctrination. Second, it involves a tacit acceptance of the view that we are a “minority” of one in ten (or thereabouts) who have always existed and will always exist as an “alternative lifestyle” or “sexual variation,” thus reinforcing belief in the validity of the heterosexual norm (of nine in ten) to which we constitute the alternative or variation…. Third, arguing that we were born that way (or might as well have been) is intended to suggest that homosexuality is “natural” (as natural as heterosexuality!), the assumption being that what is natural is both ethically acceptable and politically unchangeable. (p. 153)

Reinforced by a dominant psychological paradigm predicated on “individual differences” (Hare-Mustin & Marecek, 1990), Kitzinger (1987, 1995) charged that lesbian and gay psychology was complicit with an ideology of liberal humanism that promised individual adjustment to a patriarchal society even as it limited the extent to which it could promise enduring social change beyond psychiatric normalization. As such, the field of lesbian and gay psychology engaged in what historian Lisa Duggan (2002) later described as homonormativity—a rejection of “the diversity of proliferating forms of sexual dissidence […] in favor of the naturalized variation of a fixed minority arrayed around a state-endorsed heterosexual primacy and prestige” (p. 190; see also Sedgwick, 1990).
Apart from these theoretical critiques, the extent to which psychologists’ essentialist approaches—strategic or otherwise—have been effective when applied to other practical domains (e.g., health, jurisprudence) is also debatable. In terms of public health research, the AIDS era has arguably reinforced the notion of the modern gay subject through the rise of identity-based activism; at the same time, however, the epidemic has also challenged such ideas. A breakdown of an essentialist behavior-equals-identity link necessitated by efforts to address multiple vectors of HIV infection led to the creation and widespread adoption of the behavior-based category “men who have sex with men” (MSM), now standard in public health discourse across cultural and national contexts (e.g., Hidaka et al., 2014; Mumtaz et al., 2011; Newcomb & Mustanski, 2011; for a critique of MSM categorization, see Young & Meyer, 2005). At the intersection of psychology and law, the American Psychological Association’s approach of strategic essentialism predicated on assumption of a minority status in need of legal protections—a standard tactic of early amicus briefs in both state and federal court cases—was eventually abandoned once it was determined that a lack of definitive evidence for biological substrates of sexual orientation ultimately undercut psychologists’ scientific credibility (Diamond & Rosky, 2016; Halley, 1994; Hammack & Windell, 2011; Hegarty, 2018). Psychologists have also begun to express reservations with minority rights-based claims in international asylum cases hinging on sexual orientation, a system wherein states regularly

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34 The evolution of *amicus curiae* filed by APA in the 1993 Colorado case of *Evans v. Romer* and subsequent 1996 Supreme Court case *Romer v. Evans* in response to Colorado Amendment 2 (a voter initiative to render illegal local anti-gay discrimination ordinances) are illustrative of how the nature of sexual orientation was less determinative than the nature of heterosexism. After arguments that sexual orientation was “resistant to change” were dismissed in court as tantamount to unproven claims of sexual orientation as an inborn trait in the 1993 case, the APA (1996) changed tactics by arguing how Amendment 2 “rests on baseless stereotypes about gay people, and reflects the sort of historically rooted antipathy still common in our society” (See Hegarty, 2018, for a full discussion of these and other amicus briefs filed by APA).
abrogate their responsibility to demonstrate nondiscrimination by compelling asylum seekers to “prove” their (homo)sexual identity to receive asylum protections (Berger, 2009). Given these developments, professional psychological organizations have begun in recent years to move away from essentialist approaches to sexuality in both theory and practice.35

**Working the Tensions: A Critical Approach of Strategic Social Constructionism**

In the foregoing review I have attempted to highlight how the theorization and investigation of sexuality has remained relatively isolated from that of culture within psychology, largely separate domains in which multiple axes of tension between essentialist and competing forms of social constructionist positions have played out in distinct ways. That critically oriented psychologists have over the past few decades periodically extolled the promise of social construction theory for productively bridging these two domains serves to highlight the continuing existence of barriers to such implementation (e.g., Agocha et al., 2014; Gergen, 1985; Hostetler & Herdt, 1998; Pettit & Hegarty, 2014; Taylor, 2002). As discussed, these barriers have often reflected an ongoing tension between liberal and radical approaches to sexuality in psychology reflective of the political and practical positionalities of each camp’s adherents (Pettit & Hegarty, 2014; Plummer, 1981a; Spivak, 1990). Having made a case for a critical perspective over one of essentialism, however, arguably the most challenging barrier remaining

35 One example of this shift may be gleaned from a gradual move away from discrete identity labels evidenced in the multiple name changes of APA Division 44 over the years. APA Division 44 was established in January 1985 as the Society for the Psychological Study of Lesbian and Gay Issues, in later years adding the terms Bisexual and Transgender in 1997 and 2009, respectively (Kimmel, 2009). The division was officially renamed yet again in December 2017 to the Society for the Psychology of Sexual Orientation and Gender Diversity, completing a move toward purposeful “ambiguity” intended to avoid the previous “alphabet soup” acronym of identity labels while enabling “perhaps a wider exploration of the science, practice and ethics surrounding sexual orientation and gender identity” (Hendricks, 2017).
for investigation at the intersection of sexualities and cultures is reflected by the lack of a unified theoretical approach to social construction (Brickell, 2006; Stam, 2002). Satisfactorily addressing this challenge is necessary before a critical approach to investigating sexual orientation beliefs is possible.

Resolution of the tensions between what Kitzinger (1995) termed “weak” and “strong” approaches to social construction is impeded by seemingly incompatible epistemological warrants that in turn hold profound implications for cross-cultural comparison of laypeople’s beliefs about sexuality (to say nothing of the possibility of empiricism itself).³⁶ These epistemological tensions have been further exacerbated by reductionist accounts of opposing intellectual camps’ positions. Advocates aligned with a “weak” social constructionist approach are wary of arguments that challenge the idea of coherent and meaningful sexual categories, along with the basis of comparison such categories conceptually afford, as insufficiently constructivist. Lack of such a basis ushers in a cultural relativism that renders direct cultural comparison futile. Such arguments echo Vance (1989), who warned that “to the extent that social construction theory grants that sexual acts, identities and even desire are mediated by cultural and historical factors, the object of the study—sexuality—becomes evanescent and threatens to disappear” (p. 21). Conversely, “strong” poststructural social constructionist arguments run the

³⁶ Kitzinger (1995) writes: “The weak form of social constructionism is the familiar argument that socialization, conditioning, media, advertising, and social arrangements, which encourage heterosexuality and prohibit homosexuality make it impossible to begin to understand lesbian or gay existence without reference to its social, historical, and political context. This argument is relatively unproblematic and is consistent with most psychological views that argue for, and document the role of, learning in human development. The strong form of social constructionism takes this idea further. At its most fundamental, it looks at the ways in which the taken-for-granted categories we use are themselves social constructions: the notions of ‘the homosexual’ and ‘sexual drive’ are seen as social categories or linguistic devices for ordering the world, which modern Western culture reifies as ‘natural,’ ‘universal,’ and ‘the way things have to be’” (p. 142; for more on these debates, see Stein, 1990; Smith, 1994; cf. Hacking, 1999).
danger of misrepresenting empiricism by framing its aim of objectivity in overly positivistic terms, failing to recognize that objectivity implies rigorously acquired experiential knowledge, not *absolute* knowledge, of reality (Ratner, 1997). And while there is little doubt that wide differences in socially held beliefs can exist in different places and times or even in the same place and time, there is no special reason for supposing, as some cultural psychologists do (e.g., D’Andrade, 1981; Shweder, 1990), that the basic psychological processes underlying the social engagement of those beliefs vary cross-culturally (Greenwood, 2004). Consequently, even “strong” forms of social constructionism need not assume cultural or temporal sexual regimes to necessarily differ, only allow for the possibility that they do (Vance, 1989).

Some critical scholars have suggested that this apparent epistemological détente between “weak” and “strong” positions of social construction is not insurmountable, however. For example, Hegarty (2018) argues that working the tensions between these two approaches to social construction “seem[s] warranted to me, and their contradictions more tolerable than the [stigmatizing, moralizing and pathologizing] ideology that they jointly oppose” (p. 90; cf. Kitzinger, 1995). Motivation to tolerate these tensions takes on additional force when considering the disturbing implications of the logically interchangeable ideologies of pathologization and essentialism. Reasons for tolerating such tensions are not merely practical, however—recognizing and addressing how concepts are sites of debate and insisting that one be aware of differences in the production of knowledge is a key practice of critical sexuality studies (Fahs & McClelland, 2015). Rather than seeking uniform agreement on definitions or epistemological positions, a position of critical sexuality encourages recognition of the latent

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37 For a more in-depth (and at times scathing) critique of the excesses of certain extreme postmodernist approaches to social construction and their dubious appropriation of scientific methodologies, see Sokal and Bricmont (1999).
instability of concepts by tracing how concepts travel between and among disciplines and how the varieties of meanings bring with them different intentions and insights (Bal, 2002, 2009).

Navigating these tensions necessarily first entails critical engagement with psychology and the disciplinary knowledge it produces, rather than calling for its outright rejection (Kitzinger, 1995; Halperin, 2007; cf. Foucault, 1978/1984). As Butler (1990) argues, “[t]here is only a taking up of the tools where they lie, where the very ‘taking up’ is enabled by the tool lying there” (p. 199). This means looking “beyond any reductionist account—whether biological or social—and to the way that sexuality is always wrapped up with other forms and norms related to a broader power nexus that incorporates gender, class, race and geopolitical location” (Johnson, 2015). Called for is an approach of epistemological promiscuity—what Albert Einstein (1949) famously referred to as the necessity for a scientist to take on the role of epistemological “opportunist”—and a vigorous and active dialectic between apparently incompatible social constructionist perspectives through a working of these tensions (Epstein, 1994; Tolman &

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38 Halperin (2007), warning against an essentialist strain in contemporary psychology, nevertheless states that “[i]t is not a matter of… condemning the academic field of Psychology as a whole—which, after all, includes the radical subfields of social psychology and critical psychology…. The goal is not to discredit psychology as an intellectual project so much as to escape a style of thinking that understands the person in terms of individual interiority and judges subjective life according to a normative standard of healthy functioning” (p. 9).

39 Einstein (1949, p. 684): “The reciprocal relationship of epistemology and science is of noteworthy kind. They are dependent upon each other. Epistemology without contact with science becomes an empty scheme. Science without epistemology is—insofar as it is thinkable at all—primitive and muddled. However, no sooner has the epistemologist who is seeking a clear system, fought his way through to such a system, than he is inclined to interpret the thought-content of science in the sense of his system and to reject whatever does not fit into his system. The scientist, however, cannot afford to carry his striving for epistemological systematic that far. He accepts gratefully the epistemological conceptual analysis; but the external conditions, which are set for him by the facts of experience, do not permit him to let himself be too much restricted in the construction of his conceptual world by the adherence to an epistemological system. He therefore must appear to the systematic epistemologist as a type of unscrupulous opportunist.”
Diamond, 2014).\textsuperscript{40} Such an epistemologically promiscuous approach would constitute, as Butler (1993, p. 222) put it, something of a double move: provisionally instituting the construct of sexual orientation categories “without which one cannot move” while simultaneously acknowledging the constructed nature of those categories.\textsuperscript{41}

In an effort to actively engage these tensions, I propose a critical approach of what I shall term \textit{strategic social constructionism}—an approach designed to avoid essentialist configurations that treat both sexuality and culture as timeless, naturalized “things” (D’Andrade, 1984) while simultaneously holding in productive tension ontological incompatibilities representing a range of social constructionist approaches. I have purposefully employed the term “strategic” in juxtaposition to that of strategic essentialism in an effort to highlight crucial differences in these two approaches. As previously discussed, the “strategic” aspect of strategic essentialism concerns an intentional bracketing off of ontological questions about sexual orientation categories to facilitate political solidarity around civil, legal and human rights advocacy (Spivak, 1990). That is, such an intentionally essentialist strategy necessarily favors political expediency over empirical fidelity. It is for this reason that an approach of strategic

\textsuperscript{40} Even Kitzinger (1995) notes that while it may not possible to resolve the essentialist/social constructionist controversy, “[t]his is not to say that resolution cannot be achieved within some of the debates that have flourished under the banners of essentialism versus constructionism. Arguments about the contribution of cultural influences in gay/lesbian/bisexual development; disputes about when, historically, it became possible to define oneself as “a homosexual”; disagreements about the extent to which people have (or feel they have) a “choice” in their sexual identity/orientation are all debates that are at least potentially resolvable” (p. 149).

\textsuperscript{41} Treichler (1987) eloquently addresses navigation of this tension in the context of the early AIDS crisis: “Of course, where AIDS is concerned, science can usefully perform its interpretive part: we can learn to live—indeed, \textit{must} learn to live—as though there are such things as viruses. The virus—a constructed scientific object—is also a historical subject, a ‘human immunodeficiency virus,’ a real source of illness and death that can be passed from one person to another under certain conditions that we can apparently—individually and collectively— influence. The trick is to live with this disjuncture, but the lesson is imperative” (p. 69).
essentialism is averse to acknowledging any form of social constructionist position; sexual identities, desires, and beliefs falling outside these essentialist categories are thereby silenced, while empirical possibilities for investigating them are foreclosed.

By contrast, the “strategy” suggested by a strategic social constructionism should ideally reflect not an avoidance, but conversely an embrace not only of social constructionist positions but also their inherent tensions. Working those tensions entails a recognition and simultaneous acknowledgment of ontologically thorny positions rather than the bracketing off of ontological questions in their entirety. The specific tensions coming into play will of course depend on the research questions of interest and the theoretical model chosen; this strategic social constructionist work will be reflected in the methodological approach adopted. However, certain core tensions will be common to any strategic social constructionist approach: balancing an acknowledgment of empiricism with a critique of a historically essentializing focus on individual cognition; and recognizing the possibility of experimentally investigating the productive work of cultural discourses while maintaining a reflexive awareness of the constructed nature of the experimental paradigm itself. A strategic social constructionist approach thus reverses priorities: empirical fidelity, however epistemologically tension-filled, now takes precedence over political considerations, expanding possibilities for the empirical investigation of sexual subjectivities and desires and, as I will go on to demonstrate in the final section of this chapter, the content and meanings constituting beliefs about sexuality and sexual orientation categories. This is not to claim that political considerations play no role in a strategic social constructionist approach—indeed, such an approach provides an alternative means for addressing the political “weaponization” of both “weak” and “strong” social constructionist arguments to deny the ontological existence of sexual orientation by critically refocusing such
arguments on the real consequences of such constructions in people’s lives (issues I return to in the Discussion). I claim only that critical empirical investigation cannot be entirely sacrificed in service to such considerations.

**Strategic Social Constructionism and Sexual Orientation Beliefs: Implications for Theory**

Thus far in this chapter I have reviewed the epistemological advantages of a critical psychological approach over one of essentialism for theorizing intersections of sexualities and cultures, culminating in the introduction of an approach of *strategic social constructionism* for holding in productive tension competing ontological warrants across a range of social constructionist approaches. It remains now to detail consequences for theory of applying this approach to investigating laypeople’s sexual orientation beliefs. Such a critical approach to sexual orientation beliefs is first to be distinguished from an essentialist paradigm reliant on the individualizing construct of homophobia and its conceptual successors (e.g., sexual prejudice) (Herek, 1984, 2004, 2009; Weinberg, 1972; cf. Hegarty & Massey, 2006; Herek, 2000). This means avoiding individualizing approaches that have as their goal the isolating of personality trait-based correlates of the homophobic or sexually prejudiced individual (e.g., Smith, 1971). Such approaches locate discriminatory beliefs as emerging through situated interactions rather than an excavation of inherent individual pathology or social maladaptation.

A strategic social constructionist approach must instead have as its focus the discursive accomplishment of discriminatory beliefs, not identification of the discriminatory homophobe. A strategic social constructionist approach to sexual orientation beliefs properly begins, to borrow from Spears (1997, p.5), from the critical premise that concepts people use in their language and communication “do not simply spring from [their] heads, but come from the surrounding social
institutions and relations in which they are embedded.” That is, sexual orientation beliefs are not conceived of as the resultant product of an entirely idiosyncratic process, cognitively residing fully formed and awaiting only activation through the investigator’s prompting. Rather, a strategic social constructionist approach conceptualizes sexual orientation beliefs as active constructions made possible through the medium of powerful, culturally shared discourses—what some narrative psychologists have termed master narratives (Thorne & McLean, 2003). While many scholars have interpreted this process of discursive production primarily in terms of subjective sexual identities, desires and behaviors (Cohler & Hammack, 2007; Davis, 2015; Kitzinger, 1987), it also conceptually follows that lay understandings of others’ sexual identities, desires and behaviors are also discursively produced (Plummer, 1982; for broader arguments on the discursive production of identity for both self and other, see also Davies & Harré 1990; Versluys, 2007). That individuals draw upon shared cultural discourses in the construction of their beliefs also has implications for the existence of group-level patterns in laypeople’s conceptualization of others in terms of sexual orientation categories. The theoretical task then becomes to ascertain in what ways these cultural discourses are engaged by laypeople in the construction of their sexual orientation beliefs.

Having detailed a critical, discourse-based approach of strategic social constructionism for the investigation of sexual orientation beliefs, a first point of tension must be addressed: deciding on core constructionist assumptions to guide the selection of theory and subsequent methodology. The strategic social constructionist approach I adopt in this dissertation takes as its foundation a recognition of core tenets shared by many strains of social constructionism, both “weak” and “strong.” According to Johnson (2015), social constructionist approaches to sexuality share four common features:
Firstly, they see no truth in explanations that ground sexuality in a biological essence. Secondly, as social meaning is seen to shape out sexuality they attend to a much broader definition of sexuality beyond accounts of identity or orientation to include everyday aspects of sexual behavior and interaction. Thirdly, they resist analyses of sexuality that categorize sexual behaviours into stable types of people, and prefer to understand human sexuality through a model of complex sexual variation rather than sexual perversion. Finally, they resist essentialist notions that reduce sexual orientation to a truth of the self or assume that sexuality develops hand in hand with sexual identity. (p. 63)

A strategic social constructionist approach for investigating laypeople’s sexual orientation beliefs further necessitates a reinterpretation of Johnson’s (2015) references to “identity” and “behavior” in terms of laypeople’s discursively mediated processes for making meaning of others’ sexual identities, behaviors and desires. I conclude this section by next considering and reinterpreting each of these four features in turn.

**Feature 1: Rejecting arguments from biological determinism.** Social constructionist approaches both “weak” and “strong” begin with a shared rejection of an essentialist reduction of sexuality to a natural biological fact. From a strategic social constructionist perspective this is not, as previously noted, to necessarily deny a role for biology but merely to assert that there is no reason to assume a teleological relationship in which variability in sexuality is reducible to the material body (Fausto-Sterling, 1992, 2012; Vance, 1989). Applied to laypeople’s beliefs, as previously discussed, endorsement of a biological basis for sexuality and sexual orientation categories would indeed be indicative of essentialist thinking. However, directly probing for laypeople’s belief in a biological basis is an insufficient strategy. As previously mentioned, such a belief might be representative of either a pathologizing or affirmational framework; consequently, indication of belief in a biological basis without additional information poses fundamental problems for interpretation (Hegarty & Pratto, 2001). An effective theoretical approach would therefore need to avoid a sole focus on the conceptually
vague language of biological determinism.

**Feature 2: Unpacking associated components of sexuality.** The crux of this second feature is to theoretically allow that human sexuality is not necessarily synonymous with a discursive construct of *sexual orientation*. Sexuality broadly construed encompasses sexual identities, behaviors, desires and other relevant (and meaningful) aspects of lived experience, although these components may be configurable by cultures and individuals into recognizable taxonomies (e.g., contemporary sexual orientation categories) (Hostetler & Herdt, 1998). This association between a broader conceptualization of sexuality and more narrowly defined sexual orientation categories corresponds to the earlier empirical work of De Cecco (1981), who identified physical sexual activity, interpersonal affection, and erotic fantasy as associated components of sexual orientation. More recently, Diamond (2003a) explored two functionally independent components of sexuality associated with sexual orientation: sexual desire and romantic love. Extending this logic to laypeople’s beliefs about sexual orientation, theory should also incorporate recognition of sexuality as a potentially multicomponent construct. Cross-cultural comparison of beliefs about sexual orientation as a multicomponent discourse is rendered possible to the extent those components of sexuality are conceptually and linguistically represented within the shared cultural discourse of each target context; it remains for the investigator to first demonstrate the cultural relevance of these components in the contexts of interest both prior to and during empirical investigation.

**Feature 3: Decoupling sexual identity from sexual desire and behavior.** A contemporary taxonomic model of binary sexual orientation (i.e., mapped onto a gender binary), while increasingly dominant across cultural contexts, may not account for the full range of sexual experiences or beliefs even within Western contexts, let alone across cultures. As an
essentialist framework of sexual orientation in which polarities of biological determinism and free choice—whether due to pathology or natural variation—relies on a conceptual unity of sexual identity, desire and behavior, a strategic social constructionist approach allowing for the combinatorial fluidity of these sexuality components possesses greater sensitivity to this potential cultural-historical variation. Applied to sexual orientation beliefs, this entails a theoretical deconstruction of sexual orientation and its categories coupled with a focus on the meanings laypeople attribute to the sexual identities, desires and behaviors of others. Theoretical approaches that conceptually decouple sexual identities, desires and behaviors would therefore allow for detection of associational variation comprising beliefs about sexual orientation categories. Such a theoretical approach would necessarily avoid deployment of identity-based taxonomic labels and their implicitly presumed identity-desire-behavior unity (Hostetler & Herdt, 1998).

**Feature 4: Contextualizing meanings of sexuality.** Finally, a strategic social constructionist acknowledgement of sexual subjectivity is not synonymous with essentialist coming out models that depend on excavation of a “real” or “true” sexual orientation. Rather, a strategic social constructionist approach focuses on individuals’ processes for making meaning of sexual identities, desires and behaviors through the use of available cultural discourses. As Plummer (1982) put it, “such encounters may be seen as stumbling, fragile and ambiguous situations in which participants gropingly attempt […] to make ‘sexual sense’ of selves, situations and others” (p. 228, emphasis mine). Yet is through such repeated encounters that “individuals throughout their life cycle come to be defined by themselves and others as sexual beings, how they come to hook themselves on to the wider cultural meanings, and how these are renegotiated and stabilized” (p. 236, emphasis mine). While the meanings attributed by
individuals to self or others may align with an essentialist coming-out discourse, a strategic social constructionist approach would not assume that they do. A culturally adaptable theoretical approach for investigating laypeople’s sexual orientation beliefs therefore cannot divorce those beliefs from the potential ways sexuality is “hook[ed]… on to” other ways of being within a given cultural context (e.g., through social roles or culturally intelligible individual behaviors). To the contrary, a critical theoretical approach would need to allow for cultural specificity in the available discourses from which individuals may draw in making meaning of others’ sexual identities, desires and behaviors.

Summary: Toward a Critical Theoretical Model of Laypeople’s Sexual Orientation Beliefs

Critical social constructionist and post-structuralist analyses of psychological and lay discourses have demonstrated how sexuality, sexual subjectivity and sexual orientation have been shaped by socially-contingent systems of thought, to produce both specific knowledgeabilities and subjectivities. These critical perspectives have further been useful in challenging psychologists to question essentialist assumptions concerning sexual orientation categories by highlighting the roles played by social, economic and political contexts. However, as these critical arguments have remained conceptual in this chapter, questions remain about how to best translate and incorporate these perspectives to further refine theory and methodology for investigating laypeople’s beliefs. Equipped with these four theoretical features of a strategic social constructionist approach, I proceed in the next chapter to address this requirement by critically reconstructing a theory of psychological essentialism as the first step toward development of a critical methodology for investigating laypeople’s sexual orientation beliefs.
CHAPTER 2: Laypeople’s Beliefs about Sexual Orientation Categories: A Critical Reconstruction of Psychological Essentialism and *Inductive Potential*

In the previous chapter I noted that an epistemological shift to social constructionism enabled questions about whether sexuality has a history (Foucault, 1978/1984; Halperin, 1990). The preceding brief genealogical review strongly implicated the contemporary construct *sexual orientation*—predicated on gendered object of attraction—as the dominant organizing principle for understanding and investigating sexuality across Western and, increasingly, non-Western cultural contexts. However, as Edward Stein (1999) argues, from a critical perspective sexuality may not be reducible to one universal pattern of sexual orientation even if certain features have achieved a degree of global ubiquity. In fact, if sexual orientation is itself historically and culturally variable, theoretical approaches assuming a natural, timeless configuration of sexual orientation categories—or *natural kind* categories—are rendered conceptually problematic. Moreover, from more poststructural positions of social construction it is not at all clear that sexual orientations are a kind of anything, natural or otherwise (on ontological distinction between natural kinds and human kinds in psychology, see also Danziger, 1997; Hacking, 2002).

While the question of whether sexual orientation categories constitute natural kinds (or not) are at the heart of these previously reviewed scholarly debates, Kitzinger (1995) warned that these ontological arguments miss the point when considered from a critical position of social constructionism:

[R]esearchers present social constructionism and essentialism as though they were two competing explanations for sexual identity… and the research task is then conceptualized as the gathering of evidence to determine which of these two explanations is “right” […] Social constructionism does not offer alternative answers to questions posed by essentialism: it raises a wholly different set of questions. Instead of searching for “truths” about homosexuals and lesbians, it asks about the discursive
practices, the narrative forms, within which homosexuals and lesbians are produced and reproduced. (pp. 147-150)

Whereas essentialist theories are concerned with how people have the sexual orientations they do, social constructionist theories instead ask where our concepts come from and what the consequences of engaging them might be (Stein, 1990). In this way intractable ontological questions of sexual orientation categories as natural kinds, Kitzinger (1995) argued, must, from a position of social construction, give way to more productive deconstruction of natural kind discourse about those categories. From a position of strategic social constructionism, this shift to discourse further allows for expansion beyond the relatively insulated domains of academic debate to include the empirical investigation of laypeople’s sexual orientation beliefs across cultural contexts. Therefore, the operative research question may be modified thus: in what ways do laypeople across cultures believe sexual orientation categories are natural kinds?

I begin this chapter by critically reinterpreting contemporary theory into laypeople’s beliefs about sexual orientation, demonstrating how this approach was made possible through a shift from a biological determinist logic of essentialism to a social constructionist theoretical model of psychological essentialism (Medin, 1989; Medin & Ortony, 1989). While psychological essentialism is the ostensible basis for the contemporary study of sexual orientation beliefs over the past decade, I will argue that the original cognitive framing of this theory at best only partially realizes its social constructionist potential. However, as critical psychology embodies a commitment not only to critique (deconstruction) but also to the reconstruction of theory (Teo, 2015), I first argue from a position of strategic social constructionism for an empirical turn to discourse. From this reconstructed theoretical vantage, I proceed to review past methodologies reliant on more cognitive interpretations of psychological essentialism, deconstructing the ways their primary objective of causally linking sexual
orientation beliefs and homophobic attitudes is problematically predicated in part on an essentialist, attributional logic. Specifically, I demonstrate this implicit theoretical essentialism by tracing the operationalization and measurement of one dimension of psychological essentialism—*inductive potential*—through key empirical studies on essentialist beliefs about sexuality. Finally, I propose some groundwork to enable a new methodological approach capable of meeting the criteria of a strategic social constructionist approach for the empirical investigation and measurement of laypeople’s essentialist beliefs about the inductive potential of sexual orientation categories.

**Psychological Essentialism: A Critical Reconstruction of Theory**

Some of the earliest work on beliefs about sexual orientation took the form of investigations into the content of attributes stereotypically associated with gay men, particularly the consequential overlapping of stereotypical beliefs about male homosexual orientation and feminine gender roles (e.g., Dunbar et al., 1973; Kite & Deaux, 1987; Page & Yee, 1985).42

42 Often drawing implicitly on the Freudian concept of sexual inversion, these investigators explored stereotypes of male and female homosexuals as possessing characteristics of opposite-sex heterosexuals (see Kite & Deaux, 1987, for an explicit link to inversion theory). Feminine gender role stereotypes of homosexual men constitute the majority focus of research into sexual inversion beliefs and include items assessing physical appearance (e.g., fashionable, wearing earrings, well groomed, wear flashy clothes), personality traits (e.g., compassionate, emotional, sensitive) and behavioral style (e.g., soft voice, dainty, melodramatic) (Dunbar et al., 1973; Madon, 1997; Mitchell & Ellis, 2010; Page & Yee, 1985; Simmons, 1965; Taylor, 1983). In more recent years investigators have explored the impact of a wider assortment of social roles on sexual inversion stereotypes (Blashill & Powlishta, 2009, 2012; Cohen, Hall, & Tuttle, 2009; Fingerhut & Peplau, 2006; Gordon & Meyer, 2008; Parent, 2015) as well as the folk concept of “gaydar” in legitimating the use of such stereotypes (Cox, Devine, Bischmann, & Hyde, 2016; Stern, West, Jost, & Rule, 2013). Although these studies purported to measure stereotypical beliefs about (primarily male) homosexuals, other researchers argue that such studies potentially confound stereotypes about homosexuality with beliefs about gender role norm violations (Fingerhut & Peplau, 2006; Lehavot & Lambert, 2007; Schope & Eliason, 2003). Further complicating such interpretations are recent findings that gender role norm transgression may not
Although not explicit, these early investigations shared key assumptions with self-categorization theory (Turner, Hogg, Oates, Reicher, & Wetherell, 1987; Turner & Reynolds, 2010; Oakes, Haslam, & Turner, 1994), an approach in which stereotypes are conceptualized as psychologically valid representations reflective of the actualities of intergroup relations. From this shared view stereotypes do not reflect the internal characteristics of individual members of a group so much as the emergent properties of the social category as a whole (Oakes et al., 1994; cf. Potter & Wetherell, 1987). As such, these often atheoretical approaches focused more on the categorical attributes of an essentialized homosexuality (as presumably distinguishable from heterosexuality) and less on the individual perceiver’s beliefs or lay theories about the extent to which group categorization predicated on sexual orientation is appropriate or meaningful in the first place.43

However, the emergence of social constructionist critiques corresponded to a shift among some scholars away from conceptualizing stereotypes as category attribute lists. Specifically, rather than relying on the classical view that mental representations of categories consist of summary lists of features or properties that individually are necessary for category membership (and collectively sufficient to determine category membership), these scholars reconceptualized stereotypes as explanatory frameworks that link specific attributes to beliefs about the very essence of what people are (Medin, 1989; Yzerbyt, Rocher, & Schadron, 1997).

43 A prime example of this dominance of atheoretical, essentialist models concerns deployment of items measuring what several researchers often referred to as “etiological beliefs.” For example, Furnham and Saito (2009) compared British and Japanese samples using 25 items measuring etiological beliefs about male homosexuality. While some items were consistent with essentialist beliefs in biological determinism (e.g., “Possessing a certain genetic make-up”), others drew upon gender inversion theory (e.g., “Having a desire to be female”; “Having a strong, dominant mother and a weak, ineffective father”) or other nature/nurture paradigm perversion framing (e.g., “Having a brain disorder”).
This move consequently led to a burst of theoretical work into the role of psychological essentialism, which was originally conceptualized as a kind of cognitive shortcut involving an inappropriate understanding of socially constructed categories as natural kinds (Medin, 1989; Medin & Ortony, 1989). Understanding how psychological essentialism has been brought to bear in the investigation of laypeople's beliefs about sexuality and sexual orientation, as well as a critical reinterpretation that better realizes its social constructionist potential, first necessitates comprehension of this theoretical framework.

**Psychological essentialism and epistemological tension.** Psychological essentialism depends for its logic on a refutation of the classical cognitive psychological view that all categories have necessary and defining features that determine category membership (Medin & Smith, 1984). This refutation was made possible through earlier work by Rosch and colleagues (Rosch & Mervis, 1975; Rosch, Mervis, Gray, Johnson, & Boyes-Braem, 1976), who revolutionized the conceptualization of categories by observing that categories may be distinguished by type. Gelman (1988) went further, arguing that a categorical distinction can be made also between natural kinds and human-made objects. This new approach effectively displaced the formerly dominant, positivistic idea of a complete correspondence between beliefs and objective reality. Correspondence to reality was not at issue, these scholars argued; rather, at issue instead was psychological essentialism: people act as if things have essences or underlying natures that make them the thing that they are (Medin, 1989). Consequently, people act as if things so grouped—whether ostensibly occurring in nature or human-made objects (e.g., tables, smartphones, types of birds)—are imbued with some property (or properties) “essential” for category membership (Medin, 1989). Importantly, Medin and Ortony (1989) argue:

> we are not claiming that objects have essences or that people necessarily believe that they know what these essences are. The point about psychological essentialism is not
that it postulates metaphysical essentialism but rather that it postulates that human
cognition may be affected by the fact that people believe in it. In other words, we are
claiming only that people find it natural to assume, or act as though, concepts have
essences. (p. 184)

The pertinent question is not whether things have essences, “but rather the view that people’s
representations of things might reflect such a belief (erroneous as it may be)” (Medin & Ortony,
1989, p. 183). Judgments regarding categorization are thus based on representations of entities,
not with respect to the metaphysical reality (or lack thereof) of those entities.

An important corollary of psychological essentialism is the idea that suspected
essential properties may be seen to be related to more superficial perceptual characteristics. This
implies that perceived category differences in surface attributes will, to the extent the category is
seen to be akin to a natural kind, be assumed to reflect category differences in more basic
attributes. In other words, natural kind thinking entails the use of a similarity heuristic in making
judgments about category membership (Medin & Ortony, 1989). Thus, differences in behavior,
physical appearance, or socially determined role(s) of an object may serve as perceptual cues to
basic differences in underlying structure. Context and individual experience matter as well in
making category judgments: “people’s assumption of essentialism would be most likely to affect
their thinking about a category when their theoretical knowledge suggests possibilities, even
vague ones, for what the essence might be like” (Rothbart & Taylor, 1992, p. 17).

The critical reader will have noted by this point, however, periodic shifts between
cognitive and social constructionist frameworks in these descriptions of a model of psychological
essentialism—an inherent epistemological tension unremarked on by these original scholars.
Cognitive psychologists typically conceive of beliefs as residing within the individual mind as
real knowledge-based entities (Eagly & Chaiken, 1993, 2007), although it is not known whether
one’s beliefs or values are always accessible to one’s conscious reflection (Markus & Kitayama,
2010). It is in this sense that the original conceptualization of psychological essentialism is at points described in terms of a cognitive “shortcut” or “error” (Medin, 1989; Medin & Ortony, 1989; for an earlier discussion of stereotypes as cognitive error, see Rice, 1926-1927). Theorized precipitating factors for this presumed cognitive shortcut or error are not explored by the original authors, however. Despite cognitive claims to the contrary, however, it is not known whether one’s beliefs or values are always accessible to one’s conscious reflection (Markus & Kitayama, 2010). At a more fundamentally epistemological level, such a cognitive approach represents an individualizing framework at odds with social constructionist approaches (Augoustinos & Walker, 1998; Potter & Wetherell, 1987). As such, Medin and colleagues’ arguments ultimately undercut their social construction-informed critique of classical cognitive models of category membership as they continue to locate essentialist thinking with individual cognition.

The arguments provided by Medin and colleagues are not exclusively cognitive, however, evidenced by explicit and repeated avoidance of claims regarding the metaphysical (read ontological) reality of human objects (Medin, 1989; Medin & Ortony, 1989). By instead focusing on laypeople’s representations of human objects, the authors implicitly recognize the central role of discourse for a process of psychological essentialism, a decidedly social constructionist approach more epistemologically attuned with their critique of classical cognitive models of category membership. Critically oriented psychologists argue that beliefs should be understood as “discursive actions” or “interpretive repertoires,” as something people do rather than have (Edwards & Potter, 1992; Potter & Wetherell, 1987). Extended to a model of psychological essentialism, a strategic social constructionist approach would allow for mitigation

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44 Indeed, this distinction between discourse and cognition became a key strand of social constructionism that emerged out of critical psychology in the 1980s and 1990s (e.g. Potter & Wetherell, 1987).
of this epistemological tension between cognitive and social constructionist conceptualization through a more intentionally discursive focus on the ways laypeople’s beliefs emerge through interpersonal interaction. Such a modified approach would thus better realize the social constructionist potential of the original theory.

**Extending psychological essentialism to social categories.** Myron Rothbart and Marjorie Taylor (1992), building on the work of Medin and colleagues, noted that psychological essentialism persists not only in people’s representations of human-made objects but also their representations of social categories.\(^{45}\) That is, people holding a belief in group essence may tend to treat the social categorization of a person as reflecting their one “true identity.” This implies that, in social categories as in thing categories, to the extent category membership rests on some presumed essential quality, category differences in surface attributes will be assumed to reflect category differences in more basic attributes. Thus, differences in behavior, physical appearance or social roles may be perceived as cues to basic differences between social categories.

Unlike natural kinds, which are assumed to reflect some metaphysically real and demonstrable “essence,” social categories instead rely for their meaning on culturally shared beliefs (Rothbart & Taylor, 1992). As such, to the extent social categories are perceived to reflect an underlying essence there are two additional consequences for beliefs. First, there should be a tendency to enhance category boundaries; thus, the greater the belief in a social category as a natural kind, the greater the belief in the mutual exclusivity of that and other categories along

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\(^{45}\) Theirs was not necessarily the first instance of psychologists making the connection between essentialist thinking and social categorization, however. Gordon Allport (1954) arguably did so first, although his contribution wasn’t fully recognized until many decades later. He writes, “One consequence… in group categorizing is that a *belief in essence* develops. There is an inherent ‘Jewishness’ in every Jew. The ‘soul of the Oriental,’ ‘Negro blood,’ Hitler’s ‘Aryanism’… ‘the passionate Latin’—all represent a belief in essence. A mysterious mana (for good or ill) resides in a group, all of its members partaking thereof” (pp. 173-174, emphasis in original).
with an exaggeration of inter-category differences. Second, culturally powerful social categories may dominate the psychological field in a way that promotes essentialist thinking, an observation compatible with a critical lens on laypeople’s meaning making through cultural discourses.

Examples of culturally powerful social categories given by Rothbart and Taylor (1992) include those representing race and gender. By focusing on people’s beliefs in an essence defining social category membership, the theory of psychological essentialism was thus also amenable to social constructionist conceptualizations of stereotypes as ideological social products that function to rationalize beliefs about group distinctions and social arrangements (Augoustinos & Walker, 1998; Jost & Banaji, 1994; Macrae & Bodenhausen, 2000; Wetherell & Potter, 1992). It was not long before sexuality scholars across disciplines, too, began to note how the theory of psychological essentialism also resonated with social constructionist approaches to sexuality and sexual orientation (e.g., De Cecco & Elia, 1993; De Cecco & Parker, 1995; Stein, 1999).

Importantly, although the use of a single term for psychological essentialism implies a singular set of beliefs about social categories, essentialist beliefs may have several distinct dimensions (Haslam, Rothschild, & Ernst, 2000). Psychologists writing on the subject have employed subtly different, and at times overlapping, understandings of essentialism and its constituent dimensions (McGarty, Haslam, Hutchinson, & Grace, 1995; Rothbart & Taylor, 1992; Yzerbyt et al., 1997). Of particular relevance here, once again, is the work of Rothbart

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46 In line with a strategic social constructionist reading, the claim that social categories such as gender, race or sexual orientation are not natural kinds should not be read as necessarily ruling out potential biological components in the bases of those social categories, only that the rationale for beliefs does not necessitate the existence of such underlying truths (Rothbart & Taylor, 1990).

47 Yzerbyt et al. (1997) caution that if these dimensions belong to a single syndrome of psychological essentialism, then these conceptualizations differ only in perspective and comprehensiveness. However, if psychological essentialism has distinct dimensions, these authors’ accounts may differ more fundamentally, each neglecting, conflating or
and Taylor (1992), who described two dimensions of alterability and inductive potential. For these authors, alterability referred to the ease with which an individual or group is perceived to be capable of acquiring or shedding a social category label; psychological essentialism reinforces the idea that social category status cannot be altered. Furthermore, to the extent social categories are treated as natural kinds the authors argued they are also rich in inductive potential—that is, imbued with meaning such that a wealth of information about category members may be readily inferred; such inferences can have far-reaching consequences for the content and structure of beliefs about those categories.

A Critical Reinterpretation of the Inductive Potential of Sexual Orientation Categories

Of the dimensions of psychological essentialism theorized, inductive potential—with its unique focus on the rich historical and culturally shared meanings associated with social categories rather than on category boundary conditions alone—is arguably most amenable to realizing the full promise of a discursive, strategic social constructionist approach to investigating laypeople’s essentialist beliefs about sexual orientation. A dimension of inductive potential also appears conceptually robust due to its ubiquity across not only work on psychological essentialism but also other sociological and social psychological theories.

mischaracterizing important aspects of the phenomenon of interest.

In contrast, Craig McGarty and colleagues (1995) took as their starting point Donald Campbell’s (1958) work on group entitativity—or the extent to which a social group is perceived to be not a mere aggregate of individuals but instead a coherent, unified and meaningful “real” entity—emphasizing dimensions of homogeneity (group member similarity) and distinctiveness (extremity of intergroup difference), properties Campbell associated with a belief in the existence of an inhering essence. Vincent Yzerbyt and colleagues (1997) subsequently attempted to combine the psychological essentialism work of Rothbart and Taylor (1992) with the entitativity work of Campbell (1958), proposing a syndrome of essentialistic categorization consisting of five dimensions of entitativity, inductive potential, immutability, interconnectedness, and exclusivity.
Lippmann (1922) famously argues, in relation to the social categorization of strangers, that “we notice a trait which marks a well known type, and fill in the rest of the picture by means of the stereotypes we carry about in our heads” (p. 89). Of particular note is Tajfel’s (1959, 1972) early social categorization theory, which predicts that, under conditions where individuals’ social category memberships are salient, those individuals tend to be assigned all the characteristics perceived to define their category (see also Turner, 1981).49 Other scholars have noted that Campbell’s (1958) argument that people bring expectations concerning the entitativity of social targets to their social information processing conceptually mirrors the dimension of inductive potential (Haslam et al., 2002). Thus, empirical investigation of inductive potential beliefs has occurred across social psychological research domains.50

Rothbart and Taylor (1992, p. 13), in defining inductive potential as the ability “to go beyond the information given,” suggest that natural kind thinking about social category membership allows for the induction of a potentially infinite amount of information about individuals. As previously noted, however, while natural kinds have rich inductive potential due

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49 As Turner (1981) explains, “Tajfel’s categorization theory […] asserts that categorizing activity has both an inductive and deductive aspect. Deduction refers to the process by which a person is assigned some attribute on the basis of his category membership. Induction, for Tajfel, refers to the identification of a person as a member of a category, but we shall use it to mean the assignment to a category of some attribute perceived to characterize an exemplary member. Thus, induction is the means by which the criterial attributes of some category are inferred from one or more individual members and deduction is the process of assigning them to all members of the category. A criterial attribute or common category characteristic is any property whose continuous distribution amongst individuals is to some degree correlated with or perceived to be correlated with their discontinuous classification as members of different social groups. Under conditions where individuals’ social category memberships are salient, they tend to be assigned all the characteristics perceived to define their category. This fact is the basis for what we can call Tajfel’s (categorization) law” (p. 105).

50 While beyond the scope of the current dissertation, attempts at bridging essentialist belief research with more mainstream approaches to intergroup relations may hold great promise and ought to be explored through future research.
to deep underlying regularities in nature, the perceived inductive potential of social categories instead reflects social values and meaning. Thus, whereas natural kinds are stable, social categories are variable across cultures and over time (cf. Fiske, 2000). Rothbart and Taylor (1992) note that due to this variability not all social categories are necessarily rich in inductive potential:

> With respect to social categories, some categories are *assumed* to be rich in meaning, others impoverished in their associations. To the extent that category membership is assumed to predict diverse and important knowledge of the person’s other attributes, it is central in character; to the extent that category membership is assumed to predict little or nothing else of interest about the person, it is peripheral in character. (p. 20)

Examples of “central” social categories would include those social categories perceived to obtain their definition from some sort of biological (e.g., genetic) essence. Thus, gender and race would be viewed as more central than ethnicity, as the former are widely believed to be fully biologically determined whereas the latter is often believed to contain elements of both biology and cultural heritage (Dar-Nimrod & Heine, 2011; Jayaratne et al., 2006). Goode (1997, p. 269) argues that, “to most heterosexuals, the category ‘homosexual’ is a dominant prepossession. It obliterates all other features or characteristics of a person; homosexuality is a *master trait*.” If so, sexual orientation may also serve as a central form of social categorization to the extent it is believed to be immutable or otherwise clearly defined (e.g., Haslam & Rothschild, 2000; Haslam, et al., 2002; Hegarty & Pratto, 2001).

Unlike other theorized dimensions of psychological essentialism that focus on boundary conditions (e.g., exclusivity, unalterability), inductive potential is primarily concerned with the historically and culturally variable *meanings* associated by laypeople with those categories. Indeed, it is the broad, unbounded associative quality of inductive potential that renders it irreducible to ontological questions of biological determinism, allowing for an
empirical means of avoiding the confounding of essentialist and social constructionist interpretive frameworks. Consequently, to the extent sexual identity is discursively mapped onto sexual desire and behavior, sexual orientation categories should be rich in inductive potential. Furthermore, a social constructionist recognition of sexual orientation categories as historically contingent, configurative aspects of sexuality means that sexual orientation categories are imbued with both individual and culturally shared meanings—context-specific meanings discernable and potentially measurable within the conceptual ambit of inductive potential. A strategic social constructionist approach to the psychological essentialism dimension of inductive potential should therefore ideally focus on laypeople’s meaning-making process in relation to culturally shared discourses of sexual orientation categories—that is, on the content and structure of laypeople’s beliefs, from which the inductive potential of those categories may be empirically inferred.

**Critically Tracing the Conceptualization and Operationalization of Inductive Potential**

In the following review, I utilize a critical approach of strategic social constructionism to trace the operationalization of the psychological essentialism dimension of inductive potential across key empirical studies of laypeople’s essentialist beliefs about the inductive potential of sexual orientation categories. For the sake of brevity and disambiguation, I hereafter adopt shorthand for a few key concepts. I use the term inductive potential when referring to the psychological dimension of inductive potential. Similarly, I employ the shorthand inductive potential beliefs for references to laypeople’s beliefs in the inductive potential of sexual orientation categories. Finally, as operational definitions of inductive potential in the empirical studies reviewed here vary both from one another as well as from the original theorized
The dimension of inductive potential proposed by Rothbart and Taylor (1992), I have opted to use a separate shorthand—IP item—when referring specifically to these operational definitions.

As a strategic social constructionist approach demands clear articulation of the epistemological warrants that inform research methodologies, my intention here, to borrow Hegarty’s (2018, p. 69) eloquent phrasing, is to “get dirty” with the conceptualization and operationalization of IP items in these key studies. The resulting narrow methodological focus on instrumentation in these prior studies, I argue, helps illuminate their limited capacity for measuring inductive potential beliefs. I explore three such critical limitations in particular: a) a collapsing of sexual orientation categories that obscures potential variation in the structure of beliefs; b) a fundamental conceptual misinterpretation precluding investigation of inductively rich associative meanings comprising sexual orientation beliefs altogether; and c) a utilization of forced choice scale-based instruments resulting in a cultural decontextualization compromising the interpretability of laypeople’s responses. I further diagnose these three instrument-based limitations as symptomatic of a deeper methodological “hybridization” of theoretical models reflecting incompatible essentialist and social constructionist epistemological positions across these studies. I conclude that such epistemologically hybridized methodological approaches, for all the practical utility and theoretical insight they may otherwise afford an anti-homophobic disciplinary project, nevertheless inhibit the original social constructionist promise of inductive potential as a means for exploring inductive potential beliefs.

**Problematic operationalization of sexual orientation categories.** Most empirical studies reviewed herein utilized IP items referencing terms indicative of social status (e.g., “homosexuals”) rather than to the suite of behaviors denoted by the term “homosexuality.” According to Haslam and Levy (2006), the intent behind an exclusive focus on “homosexual” as
social status was both to maintain methodological consistency with previous studies as well as explore implications of essentialist beliefs for prejudicial attitudes toward (primarily) gay men as a stigmatized minority group. Given the importance of social categorization for inductive potential, an exclusive focus on social role might initially appear a conceptually appropriate choice. However, as previously noted by Rothbart and Taylor (1992) in describing essentialist beliefs about social categories, not only social role but also physical appearance and behavior serve as cues to category membership. Given the relative “concealability” of homosexuality, compared with the visible phenotypical markers often used to determine racial categorization (Goffman, 1963; Herek & Capitanio, 1996), behaviors as well as emotions (e.g., those evocative of sexual desire) take on an arguably greater inductive roles alongside social role in the evaluation of sexual orientation categories. Furthermore, from a strategic social constructionist perspective, the decision to avoid sexual desire and behavior altogether ignores the epistemologically complicated relationship between sexual identities, desires and behaviors—a relationship that essentialist approaches risk collapsing as implicated by the third feature of a strategic social constructionism.

Problems of interpretation introduced by the elision of behaviors and emotions is further exacerbated by the collapsing of sexual orientation categories themselves. Several instruments contained only a single IP item prompt referring generally to “sexual orientation” (e.g., Arsenneau, Grzanka, Miles, & Fassinger, 2013; Hegarty & Pratto, 2001; Morandini et al., 2015) or effectively collapsed sexual orientation categories through the use of double-barreled prompts referencing “homosexual and heterosexual” people (Haslam & Levy, 2006). Examples of the full wording of these items are as follows: “If you didn’t know a person’s sexual orientation you couldn’t really say that you know that person” (Hegarty & Pratto, 2001, p. 129);
and “Knowing that someone is homosexual or heterosexual tells you a lot about them” (Haslam & Levy, 2006, p. 483). Of these studies, Haslam et al. (2002) alone train their operational focus specifically on the social category of gay men, adapting language from Haslam and colleagues (2000). Yet even this latter study, in focusing on gay men isolated from further context, limits investigators’ ability to detect the potentially variable inductive potential of homosexual and heterosexual social categories through its lack of a reference social group (e.g., heterosexual men).

Haslam and Levy (2006) state that scale items were intentionally crafted to “refer… as much as possible to ‘sexual orientation’ in general or to both homosexual and heterosexuals rather than to homosexuals alone (except where this would not be coherent)” as way to “establish the generality of [their] findings” (p. 478-479). However, Rothbart and Taylor (1992) originally define inductive potential in terms of specific social categories (e.g., gay males) relative to others, not entire classificatory constructs (e.g., sexual orientation). If we begin from Rothbart and Taylor’s (1992) original premise that social categories may vary in the relative centrality of their inductive potential, it follows that researchers should allow for detection of inter-category variability in laypeople’s beliefs. An approach to measuring inductive potential beliefs predicated on clearly defined social categories rather than classificatory constructs also opens the door to acknowledging intersectionally interweaving discourses of sexuality, gender, race and class. As such, IP items worded without distinction to specific sexual orientation categories of “heterosexual” and “homosexual” (among other possibilities) through a focus on the all-encompassing construct “sexual orientation” thus run the risk of eliding potentially dynamic inter-category associations.

**Loss of inductively rich content of beliefs.** A more fundamental problem lies in these
prior studies’ uniform decision to operationalize inductive potential as a single forced-response IP item assessing the degree to which sexual orientation categories (separately or collapsed) possess inductive potential (e.g., Haslam et al., 2002; Haslam & Levy, 2006; Hegarty & Pratto, 2001). The evolving approach of Haslam and colleagues (2000, 2002, 2006) exemplifies this pattern of IP item operationalization. In an earlier paper the authors initially explain that eliciting laypeople’s essentialist beliefs about sexual orientation categories demands complex conceptual judgments, an explanation that appears to acknowledge Rothbart and Taylor’s (1992) original intent for inductive potential (Haslam et al., 2000). However, the authors go on to conceptually equate inductive potential with a belief that a social category is “informative,” a definition that replaces an empirical focus on process with a single outcome of mere endorsement (p. 120). This definitional shift is fully realized in their operationalization of an “informativeness” IP item, which despite the use of a long, detailed prompt—ostensibly in recognition of laypeople’s complex processes of conceptual judgment—nevertheless relies on a forced-response degree of endorsement scale.51 Ultimately, Haslam and colleagues appear to have abandoned even this longer IP prompt in favor of the now dominant approach of utilizing brief IP item prompts in subsequent research (Haslam et al., 2002; Haslam & Levy, 2006).

Whether utilizing brief or more detailed IP items, however, from a critical perspective of a strategic social constructionism, standardized scale-based approaches relying on forced-response prompts are ill-suited to the task of investigating the meaning-centered dimension of inductive potential. Such forced-response approaches effectively reduce empirical investigation

51 The relatively longer wording of this prompt is as follows: “Some categories allow people to make many judgments about their members; knowing that someone belongs to the category tells us a lot about that person. Other categories only allow a few judgments about their members; knowledge of membership is not very informative” (Haslam et al., 2000, p. 117).
of laypeople’s inductive potential beliefs to directly asking them to indicate their degree of endorsement of the idea that sexual orientation categories are inductively potent. Yet in so doing, these investigators have failed to capture the inductively rich content of laypeople’s beliefs. Asking whether or to what degree a social category possesses inductive potential is not the same thing as asking the more open-ended question of what that potential is. As such, asking whether participants believe a category is inductively rich or not tells us nothing of interest about the associated meanings or structure comprising those beliefs. However, none of the reviewed studies address this latter, and rather more illuminating, question. Such a methodological shift toward investigating the content of inductive potential beliefs would better reflect the second feature of a strategic social constructionism: the association of sexual orientation category membership not only with other aspects of sexuality but also other cultural ways of being.

**Cultural insensitivity of standardized scale-based approaches.** Standardization of forced-response scale-based instruments, while motivated by an empirical need for establishing a basis of comparison, may also inadvertently facilitate investigators’ own cultural assumptions regarding social meanings associated with sexuality and sexual orientation. Forced-response items constrain respondents only to indicate their level of endorsement of (often dated) prompts that the instrument creators present as cultural norms rather than ask respondents to identify cultural standards (see Cuthbert, 2015; Markus & Kitayama, 2010). At worst, such standardized instruments may promote response set threats to internal validity—for example, respondents failing to comprehend the implicit cultural assumptions contained within the item prompts or selecting answer options despite an initial lack of strong beliefs (Bornstein, 1989; Zajonc, 1968)—consequently compromising the interpretability of these analyses. As such, contrary to the fourth feature of a strategic social constructionist approach regarding the historical and
cultural malleability of meanings associated with sexuality, these standardized forced-response instruments limit the capacity to capture a broader range of societal knowledge and understandings concerning inductive potential beliefs.

Limitations associated with investigators’ cultural assumptions are further exacerbated when attempting to localize these forced-response scale-based IP items to other (particularly non-Western) cultural contexts (Agocha et al., 2014; Alldred & Fox, 2015). As scale localization is also often a process of linguistic translation, differences in basic grammar as well as the culturally specific matrix of interrelated meanings of components of sexuality would potentially render unintelligible scale-based instruments to measure essentialist beliefs about sexual orientation categories. Worse yet, lack of cultural competence on the part of investigators may further exacerbate this lack of instrument validity in unanticipated and potentially confounding ways. Thus, while scale localization does allow for direct cross-cultural comparison, it is one that may be banal to the extent decontextualized scale items that fail to address the how and why of those beliefs are utilized (Ratner, 1997). For example, application of Haslam and Levy’s (2006) now standard Essentialist Beliefs Scale (EBS)—a scale validated within a monolingual North American cultural context—to measure the degree of endorsement of sexual orientation categories as inductively potent would thus provide little to no guidance as to the interpretation of those outcomes, particularly in other cultural contexts. Forced-response IP items limited to measuring degree of endorsement of the inductive potential of sexual orientation categories.

52 Development of the current dissertation serves as case in point. In my own collaborative work in Japan in the early pilot testing phase of this study, my Japanese colleagues and I encountered both fundamental linguistic and conceptual barriers in our early attempts to localize Haslam and Levy’s EBS (2006). Our experience suggested that the culturally idiosyncratic prompts employed by this instrument potentially affected laypeople’s interpretation of essentialist belief items, a realization that led directly to the critical amalgam methodology developed for this project (see Chapter 3).
would consequently appear insensitive to deciphering associated meanings attributed by laypeople, both within and between cultural contexts.

**Diagnosing the epistemological incompatibility of hybridized methodologies.**

Having detailed key limitations with prior empirical approaches to conceptualizing inductive potential stemming from use of forced-response scale-based instruments and operational IP items, I now turn to addressing the question of why this approach achieved methodological dominance in the psychological investigation of essentialist beliefs about sexual orientation. Successful diagnosis of this issue may suggest alternative direction more amenable to a strategic social constructionist methodological approach. Apart from the relative methodological ease afforded by scale-based approaches, one promising explanation, I argue, can be found in a reliance common to these studies on a problematic “hybridization” of the social construction-based theory of psychological essentialism (Rothbart & Taylor, 1992) and the essentialist logic of attribution theory (Heider, 1958; Weiner, Perry, & Magnusson, 1989). In support of this argument I demonstrate how these two distinct theoretical approaches—and their incompatible epistemological warrants—are reflected in these studies’ shared goal of investigating associations between essentialist *beliefs* and homophobic *attitudes* (e.g., Arseneau et al., 2013; Haslam et al., 2002; Haslam & Levy, 2006; Hegarty & Pratto, 2001; Jayaratne et al., 2006; Morandini et al., 2017).

Understanding how attribution theory came to play a role in the investigation of essentialist beliefs about sexual orientation first requires some conceptual and historical context. At a basic level, attribution theory predicts that people who hold biological determinist beliefs about a stigmatized characteristic will tend to be more tolerant than those who believe that that characteristic is under personal control (Weiner et al., 1989)—an idea soon extended to
heterosexual’s beliefs about homosexuality (Aguero, Bloch, & Byrne, 1984; for an earlier version predating Weiner et al., 1989, see Levitt & Klassen, 1974). The majority of these latter studies operationalized anti-gay attitudes using variations of Gregory Herek’s popular Attitudes Toward Lesbians and Gay Men (ATLG) scale (1988), including periodically revised short forms specific to lesbian women (ATL) and gay men (ATG) (Herek, 1994; Herek & McLemore, 1997). It did not hurt that the essentialist logic of both biological determinism and attribution theory’s conceptualization of beliefs as components of attitudes fit well within gay-affirmative—and as previously argued politically expedient (Spivak, 1990)—approaches to the psychological study of sexuality ascendant at the end of the twentieth century (e.g., Herek & Capitanio, 1995; Whitley, 1990). Consequently, Hegarty (2018) argues, the pressing political and legal concerns of the time—as experienced by those in the United States and other Western contexts, at least—provided intellectual cover for avoiding the epistemologically difficult task of exploring beliefs about group differences in favor of attitudes and, by extension, prejudice.

While the key empirical studies reviewed here were not in most cases explicitly predicated on attribution theory, their implicit reliance on the theory’s essentialist logic is evident in the operationalization and analysis of inductive potential as a predictor of anti-gay attitudes (and not the reverse). Moreover, these investigators, relying on a variety of factor

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53 Indeed, conceptualization of sexual orientation beliefs as components of anti-gay attitudes in this extension of attribution theory mirrors the dominant attitude paradigm in cognitive psychology. Most contemporary cognitive approaches define attitudes as associative networks of interconnected evaluations and beliefs (Eagly & Chaiken, 1993, 2007; Haddock et al., 1993; see Olson & Zanna, 2011, for a review). For a thorough review of essentialist belief factor structures as predictors of anti-gay attitudes, see Hegarty (2018).

54 For a notable exception, see Hegarty and Pratto (2001). Originally framed explicitly through attribution theory to justify linking beliefs with anti-gay attitudes, Hegarty subsequently positioned this work as an early attempt at operationalizing psychological essentialism for exploring beliefs about sexual orientation categories (Hegarty, 2018; Hubbard & Hegarty, 2014).
structures reflecting different configurations and operational definitions for dimensions of psychological essentialism, found complex and at times inconsistent associations between inductive potential beliefs and anti-gay prejudice. For example, Peter Hegarty and Felicia Pratto (2001), in a factor-analytic study, found that one of their two “essential identity” items (i.e., an IP item) loaded onto both immutability and fundamentality factors while failing to load onto the outcome of anti-gay attitudes—anomalies unremarked upon by the authors and conceptually problematic as these two factors were theorized to associate with anti-gay attitudes in opposite directions. By contrast, Nick Haslam and colleagues (2002), testing a separate entitativity factor, found that the social category “gay men” was not only “informative” (i.e., inductively potent) but also that this informativeness was strongly associated with anti-gay attitudes when included with other entitativity items. Haslam and Sheri Levy (2006), noting this

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55 In studies where it was investigated, inductive potential was operationalized as a single forced-response item, variously termed “essential identity” (Hegarty & Pratto, 2001) or “informativeness” (Haslam et al., 2002; Haslam & Levy, 2006). Haslam and colleagues (2000) concluded that while their two-factor structure resembled the dimensions of unalterability and inductive potential proposed by Rothbart and Taylor (1992), their findings “suggest that [the latter authors’] descriptions of the two dimensions are somewhat partial: immutability is only one part of a broader web of natural kind beliefs, and informativeness [i.e., inductive potential] is embedded in a complex of beliefs concerning entitativity” (p. 120; see also Campbell, 1958; McGarty et al., 1995). Hegarty and Pratto (2001) proposed a different two-factor structure, however, finding that beliefs in the immutability of sexual orientation were negatively correlated with the belief in the fundamentality of sexual orientation categories. They were also concerned with the ways in which these two belief factors predicted homophobic attitudes. They found that, overall, immutability beliefs were correlated with positive attitudes toward gay men, while fundamentality beliefs were correlated with negative attitudes. Following up on their earlier work on psychological essentialism and social categories (Haslam et al., 2000), Nick Haslam and colleagues (2002) found that essentialist beliefs about three social groups—black people, women, and gay men—differed in terms of the perceived naturalness and entitativity of those groups, such that essentialist beliefs in group entitativity were associated strongly with sexual prejudice toward gay men but only weakly with sexism and racism. Associations between essentialist beliefs and sexual prejudice were complex within these two dimensions: while immutability and naturalness beliefs were negatively correlated with sexual prejudice, beliefs in the discreteness of sexual categories were positively correlated with sexual prejudice.
and other conceptual inconsistencies between these two prior studies, subsequently attempted to validate a larger, more psychometrically sound factor structure. Inductive potential was once again operationalized as the single IP item of “informativeness” in their third study, this time loading onto a new discreteness factor (a combination of entitativity and fundamentality dimensions). Given these methodological and conceptual inconsistencies, it should come as little surprise that these “hybridized” belief-attitude approaches have produced very mixed findings and frequent null results (Boysen & Vogel, 2007; see Hegarty & Golden, 2008, for discussion), prompting some scholars to conclude that attributional logic may ultimately have little to no association with essentialist beliefs (Demoulin, Leyens, & Yzerbyt, 2006).

The essentialist logic of attribution theory and its role in the psychological study of essentialist beliefs about sexual orientation has been subject to social constructionist critique from other directions as well. Methodologically, the unidirectional interpretations of what are at their core predictive models—that beliefs about choice and biological determinism are the cause of anti-gay attitudes, rather than the reverse—evidence a systemic causal inference error in these

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56 Comparing the inconsistent belief factor structures of Haslam’s previous work (Haslam et al., 2000) with that of Hegarty and Pratto (2001), Haslam and Levy (2006) write: “The immutability and natural kind factors share an emphasis on fixity and biological determinism, and the fundamentality and entitativity factors share a focus on underlying similarities and informativeness. However, Haslam et al.’s (2000, 2002) natural kind factor extends beyond immutability to include a belief in the discreteness of sexual orientations, which would fall within Hegarty and Pratto’s [2001] fundamentality factor” (p. 472-473).

57 Haslam and Levy (2006) obtained a three-factor solution across three studies: belief in the immutability of sexuality (associated with lower sexual prejudice); belief in the discreteness of sexual orientation (associated with higher sexual prejudice); and belief in the universality of sexual orientation across culture and historical time (positively correlated with immutability beliefs and negatively correlated with discreteness beliefs; and an indeterminate relationship to sexual prejudice).

58 I remind the reader that inductive potential and entitativity had been previously conceptualized as separate dimensions of psychological essentialism (Yzerbyt et al., 1997).
studies (Hegarty, 2018). More conceptually, scholars have noted that belief in “a lack of control” and the “biological basis” of homosexuality are not necessarily equivalent claims (Halley, 1994; Hegarty & Pratto, 2001). To the contrary, the ways that people believe that homosexuality is or is not under biological control appear to depend more on social constructions of biological determinism beliefs as expressions of tolerance and less on the attributional content of such beliefs (Hegarty, 2002, 2010; Lewis, 2009). Furthermore, arguments promoting biological determinism theories as inherently pro-gay not only fail to consider how attitudes serve individual- and group-based psychological functions (Falomir-Pichastor & Mugny, 2009; Herek, 1986, 2000) but are also dangerously indistinguishable from a prior psychiatric paradigm of homosexuality as congenital pathology. This interpretive limitation has led to attempts in recent studies to directly gauge laypeople’s essentialist and social constructionist beliefs separately (Arseneau et al., 2013; Grzanka, Zeiders, & Miles, 2016). Social and cultural psychologists have also called out a Western chauvinism associated with attributional approaches more generally, pointing out that attribution researchers have rarely paid attention to historical frames of reference (Gergen, 1973) while focusing almost exclusively on North American cultures (Israel & Tajfel, 1972; Norenzayan & Nisbett, 2000). Yet these critiques have apparently been limited in their influence on subsequent research on beliefs about sexuality, which has tended to employ Haslam and Levy’s (2006) essentialist beliefs factor structure (e.g., Hegarty, 2010; Morandini et al., 2015; Morandini et al., 2017; Morton & Postmes, 2009).

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59 For a vivid example of this unidirectional assumption, see the title of the article by Landén and Innala (2002).
60 Specifically, these studies found that participants did not always endorse the biological theory of homosexuality as if they had no pre-existing beliefs but rather made sense of this theory actively and idiosyncratically (Boysen & Vogel, 1997; Oldham & Kasser, 1999; Piskur & Degelman, 1992; Pratarelli & Donaldson, 1997).
61 For example, Thomas Morton & Thomas Postmes (2009) investigated the degree of gay
Toward a Critical Methodology for Measuring Inductive Potential

A move from an essentialist, stereotype attributes approach (e.g., based on sexual inversion theory) to a more contemporary theoretical model of psychological essentialism has ostensibly enabled a social constructionist approach for exploring laypeople’s beliefs about sexual orientation. Yet a closer methodological examination suggests that classifying this past body of research within the spectrum of social constructionism would be misleading. That these scholars have implicitly (and in some cases explicitly) done so is perhaps unsurprising given their shared goal of operationalizing dimensions of psychological essentialism in these studies. Notwithstanding such goals, these attempts have nevertheless simultaneously and problematically adhered as well to an essentialist, attributional logic through attempts to demonstrate a unidirectional association between essentialist beliefs and anti-gay attitudes. The result, as I have argued, has been an epistemologically untenable hybridized theoretical approach that has methodologically constrained investigators to forced-response scale-based methods that, regardless of investigators’ intent, have heretofore impeded the investigation of the content and structure of laypeople’s essentialist beliefs about sexual orientation across cultural contexts.

men’s own endorsement of essentialist beliefs about sexuality. Specifically, threats that gay men’s identities would be denied were associated with greater immutability beliefs, while threats of discrimination evidenced less association with such beliefs. The authors concluded that some minority group members “might use essentialism to counter the denial of their identity by the majority (e.g., marginalization) but that essentialism might be less appealing when minority identity is recognized but devalued (e.g., discrimination)” (p. 656; see also Verkuyten, 2003). However, the discreteness factor (of which inductive potential was operationalized as the item “informativeness”) failed to evidence any variation by degree of identification, contradicting the authors’ conclusions and contrary to Rothbart and Taylor’s (1992) conceptual distinction in the variable inductive potential of central and peripheral social categories. For an example of a more recent attempt at building upon Haslam and Levy’s (2006) factor structure, see Arseneau et al. (2013).
Identification of these limitations leads to a critical question: what might a culturally adaptable methodology for investigating laypeople’s inductive potential beliefs that also incorporates all four features of a strategic social constructionism look like? As transformation from theorized psychological processes to measurable constructs is rarely transparent (Cronbach & Meehl, 1955; Danziger, 1997; Martin & Sugarman, 2009), it is incumbent on me to carefully construct the rationale for my chosen methodological approach. At its most basic, a critically informed approach would by necessity avoid the three previously discussed key limitations symptomatic of a social constructionist-essentialist hybridized method, strongly suggesting the utility of an approach focused more narrowly (at least initially) on an investigation of inductive potential beliefs untethered from their potential association with anti-gay attitudes. The foregoing review suggests one possible option for doing so: a critical reconstruction of Rothbart and Taylor’s (1992) original—and social constructionist—theoretical model of psychological essentialism. The task then becomes more straightforward, if complex: figuring out how to apply Rothbart and Taylor’s (1992) original concept of inductive potential to the measurement of inductive potential beliefs in a way methodologically informed by the four features of a strategic social constructionist approach.

A recent pair of studies by Hubbard and Hegarty (2014) provide a promising start for realizing a strategic social constructionist methodology for measuring inductive potential beliefs. Departing from the studies reviewed previously, in their first study the authors experimentally explored laypeople’s essentialist beliefs about homosexual and heterosexual people as separate social categories. Such a method thus allowed for sensitivity to the potentially variable social

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62 While Hubbard and Hegarty (2014) purposefully framed their two-part study in terms of avoiding a heteronormative tendency in past psychological research of naturalizing heterosexuality by positioning beliefs about homosexual people as “the effect to be explained”
centrality of sexual orientation categories given the relative stigmatization of the social category “homosexuals” to that of the social category “heterosexuals” frequently documented across cultural contexts (Adamczyk, 2017; United Nations Office of the High Commissioner for Human Rights, 2011, 2015). Based on their participants’ references to various components of sexuality when reporting their essentialist beliefs about either homosexuality or heterosexuality, the authors in a follow-up study explored the relative contributions to essentialist beliefs about sexual orientation of four components of sexuality: love, identity, behavior, and desire (based, in turn, on Diamond, 2003a, and De Cecco, 1981). In this way their design acknowledged two additional features of a strategic social constructionist approach: the potential for multiple components of sexuality (Feature 2) and a conceptual unlinking of sexual identity from sexual behavior (Feature 3). Yet even Hubbard and Hegarty’s (2014) relatively sophisticated method remains constrained by the same “hybridized” theoretical approach of the previously reviewed studies through their reliance on Haslam and Levy’s (2006) forced-choice belief-attitude model. Consequently, even this recent method fails to address both the remaining feature of a strategic social constructionist approach (Feature 4) and the associated meanings comprising inductive potential beliefs.

(Bruckmüller & Abele, 2010), the practical effect of this approach is, as argued here, a focus on the relative centrality of sexual orientation categories in line with Rothbart and Taylor’s (1992) original conceptualization of inductive potential specifically and psychological essentialism more broadly.

63 Differentiating between sexual orientation categories in this way, Hubbard and Hegarty (2014) found evidence that endorsement of essentialist beliefs differed among only the psychological essentialism dimension of universality (Haslam & Levy, 2006), such that sexual prejudice was associated with beliefs about the historical invariance of homosexual love, behavior and desire, but not to beliefs about homosexual identity. It should be noted, however, that these findings do not pertain to Haslam and Levy’s (2006) distinctiveness factor (of which inductive potential was operationalized as one IP item). Consequently, no conclusions may be drawn from more recent study regarding components of sexuality and beliefs in the inductive potential of sexual orientation categories.
Returning to Rothbart and Taylor’s (1992) social constructionist conceptualization of inductive potential—one that entails distinguishing between sexual orientations as social categories and a focus on the content of inductive potential beliefs—methodologically necessitates a radical move away from the heretofore dominant paradigm of forced-choice scale-based approaches limited to measuring degree of endorsement (e.g., Haslam et al., 2002; Haslam & Levy, 2006; Hegarty & Pratto, 2001; Hubbard & Hegarty, 2014). As an alternative, in this dissertation I propose to merge the insights of a strategic social constructionism for methodology with Rothbart and Taylor’s (1992) original conceptualization of inductive potential to investigate the associative content and structure of inductive potential beliefs. Such a critical methodology would need to not only meet all four features of a strategic social constructionism but also the features of an original conceptualization of inductive potential (Rothbart & Taylor, 1992). In so doing, this critical methodology would enable laypeople to determine for themselves the degree to which sexual identity and sexual behavior are coupled as well as avoid problems associated with localizing forced-choice scale-based survey instruments across different cultural contexts. In the next chapter I describe the development of an amalgam methodology that meets these two sets of criteria.
CHAPTER 3: Measuring Laypeople’s Beliefs in the *Inductive Potential* of Sexual Orientation Categories: A Critical Amalgam Methodology

To have a method is to have a roadmap for making an interpretation; the method of inquiry determines what can be found (Gadamer, 1976; see also Danziger & Dzinas, 1997; Gigerenzer, 1991). Methods to date for investigating essentialist beliefs have, as previously discussed in Chapter 2, relied on forced-response scale-based instruments utilizing brief decontextualized prompts. A strength of these scale-based approaches (e.g., Essentialist Beliefs Scale; Haslam & Levy, 2006) lies in measurement being standardized and relatively straightforward. However, as also detailed in the previous chapter, from the perspective of a strategic social constructionism they carry with them three major limitations when applied to the study of laypeople’s inductive potential beliefs across cultural contexts: 1) they are insensitive to tensions inherent in the relationship between beliefs about sexual identities, behaviors and desires; 2) they solicit only laypeople’s degree of endorsement of inductive potential beliefs rather than investigate the content of those beliefs; and 3) they assume investigators’ own cultural understanding of sexual orientation categories rather than those of laypeople.

The previous chapter ends with a proposal for two methodological features associated with the original conceptualization of inductive potential (Rothbart & Taylor, 1992). These two features, I argued, are necessary for a critical investigation of inductive potential beliefs as they both recognize the possibility of distinct belief structures associated with different sexual orientation categories as well as analytically allow for inference of inductive potential beliefs from the rich structure of laypeople’s representations. These two features may be added to the four basic features of a theoretical approach stemming from a lens of strategic social
constructionism (adapted from Johnson, 2015) summarized at the end of Chapter 1: 1) avoiding questions concerning the biological determinism of sexual orientation categories in favor of a focus on laypeople’s discursive interactions with those categories; 2) investigating beliefs about components of sexuality (e.g., identity, behavior romantic love, sexual desire) rather than collapsing them through the construct of sexual orientation; 3) utilizing theoretical approaches capable of decoupling performances of sexual identity from sexual behavior; and 4) utilizing discursive designs that allow laypeople to draw upon their own knowledge of sexual orientation categories in describing potentially complex meaning structures associated with those categories rather than directly asking them about their endorsement of investigators’ constructs.

In this chapter I propose a critical methodology for the empirical measurement of inductive potential beliefs that incorporates all six of these features. My use of the term critical to describe methodology in this context specifically draws upon Jennifer Greene’s (2006) definition of methodology as engaging four distinguishable yet overlapping domains of:

philosophical assumptions and stances [i.e., ontology and epistemology], inquiry logics [i.e., appropriate inquiry purposes and questions, broad inquiry strategies and designs, sampling preferences and logic, criteria of quality for both methodology and inference, and defensible forms of writing and reporting], guidelines for practice [inquiry steps and procedures], and sociopolitical commitments in science (pp. 93-94)

The critical methodology I propose below is intended to be broadly adaptable to the cultural context(s) of research interest. At the same time, rather than take the social construction of sexual orientation to be axiomatic, my proposed methodology is intended to allow investigators to empirically test the proposition that inductive potential beliefs are culturally shared through between-group experimental methods.64

64 For a slightly different take on critical methodology in psychology less aligned with the formal subdisciplinary area of Critical Psychology, see Yanchar, Gantt, and Clay (2005).
**Brief Description of the Critical Amalgam Methodology**

Meeting the six methodological challenges above requires creation of a critical methodology, one strategically situated along the continuum of social constructionist approaches. Working within a critically reconstructed theoretical paradigm of psychological essentialism as a way of avoiding questions concerning the ontology of sexual orientation is already to meet Feature 1. To meet the other features, I propose a *critical amalgam methodology*—one constructed from theoretically disparate design elements drawn from both critical and traditional social psychology as well as mathematics. The term “amalgam” is intended to explicitly situate this methodology as conceptually distinct from “integrated” or mixed-method approaches. While mixed methods approaches have been defined in several ways across disciplines, most scholars locate mixing at the level of data collection and/or data analysis for the purposes of increased breadth or corroboration (e.g., Campbell & Fiske, 1959; Creswell, 2009; Denzin, 1978; for a review see Johnson, Onwuegbuzie, & Turner, 2007). Such methodological pluralism entails integrating multiple, fully realized data collection and/or analytic methods to facilitate multiple ways of knowing (Creswell, 2009; Greene, 2006). In contrast to these mixed methods approaches, the amalgam methodology described herein is a hybrid construction: a combination of partial design elements working in tandem to constitute a single empirical instrument.

Specifically, this proposed amalgam methodology consists of four elements. An initial element entails priming participants’ own mental representations of sexual orientation categories through a cover story. A subsequent impression formation task represents the second element, which involves participants’ evaluations of a fictional target’s scripted behavioral and emotional cues in relation to an object of attraction. Gender cues of this object are experimentally
manipulated in juxtaposition to the fictional target’s constant gender cues; discrete juxtaposition patterns are designed to correspond to discrete, culturally salient sexual orientation categories (e.g., heterosexual, homosexual). All participants are then provided with identical sets of social role and trait-based identity labels for describing their impressions of the fictional target. The third element describes a novel outcome measure that allows participants to depict those identity labels visually (and structurally) as overlapping circles through generation of a diagram. A fourth and final element concerns analysis and interpretation of participant-generated diagrams using inferential statistical procedures informed by an interpretive community of research colleagues and the participants themselves (or their peers).

In the remainder of this chapter I provide a thorough theoretical and methodological justifications for the four elements of this amalgam methodology, followed by concise explication of their empirical application to method. Throughout, I conceptually connect each element to the six features of a strategic social constructionist approach for investigating inductive potential beliefs (see Table 1). In so doing, my goal is to demonstrate how this critical amalgam methodology effectively provides a strategic social constructionist alternative for measuring laypeople’s beliefs about the inductive potential of sexual orientation categories while addressing points of epistemological tensions inherent in such an approach.
Table 1

Amalgam Methodology for Measuring Laypeople’s Beliefs in the Inductive Potential of Sexual Orientation Categories

<table>
<thead>
<tr>
<th>Source</th>
<th>Theoretical Features</th>
<th>Methodological Design Element(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Social Constructionism (adapted from Johnson, 2015)</td>
<td>1. Rejecting arguments from biological determinism</td>
<td><strong>Model of psychological essentialism.</strong> Avoiding questions of the ontology of sexual orientation(s) in favor of a focus on laypeople’s beliefs about sexual orientation categories</td>
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<tr>
<td></td>
<td>2. Unpacking beliefs about potentially associated components of sexuality</td>
<td><strong>Impression formation task / Euler diagram.</strong> Operationalizing components of sexuality (e.g., romantic love, sexual desire) as separate attributed identity labels; potential associations depicted through Euler diagram</td>
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<tr>
<td></td>
<td>3. Decoupling performance of sexual behavior from sexual identity</td>
<td><strong>Impression formation task.</strong> Manipulating gender cues of fictional target’s object of attraction alongside target’s performance of behavioral and emotional cues in relation to that object</td>
</tr>
<tr>
<td></td>
<td>4. Recognizing embeddedness of inductive potential beliefs within broader cultural discourses</td>
<td><strong>Impression formation task / Euler diagram / mixed-method interpretation.</strong> Participants depict associations between components of sexuality as well as social roles and characteristic traits of fictional target through self-generated Euler diagram; follow-up discursive interpretation of Euler diagrams by investigators, informed by evaluations of participants/peers</td>
</tr>
<tr>
<td>Inductive Potential of Sexual Orientation Categories (adapted from Rothbart &amp; Taylor, 1992)</td>
<td>5. Separately engaging inductive potential beliefs about sexual orientation categories</td>
<td><strong>Impression formation task.</strong> Exposing groups of participants to differently manipulated gender cues of fictional target’s object of attraction in ways aligning with sexual orientation categories</td>
</tr>
<tr>
<td></td>
<td>6. Recognizing inductive potential beliefs as consequence of essentialist thinking</td>
<td><strong>Priming / Euler diagram / mixed-method interpretation.</strong> Activating participants’ mental representations of sexual orientation categories prior to impression formation task; analytically inferring presence of inductive potential beliefs from Euler diagrammatic patterns and subsequent discursive analysis by investigator and participants/peers</td>
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From Forced Response to Priming: Activating Sexual Orientation Beliefs

A primary goal of this new methodology has been to move away from a forced-response item survey format—an approach epistemologically incompatible with a strategic social constructionist recognition of sexual orientation categories as culturally shared discursive representations defined by a precarious configuration of sexual identities, behaviors and desires. Limitations of such forced-response approaches are brought into sharp relief when considering whose mental representations of sexual orientation are evaluated and subsequently analyzed. Forced-response methods by design are dependent on investigators’ own representations; investigation of participants’ inductive potential beliefs is therefore limited to simple endorsement of the existence of such beliefs rather than exploration of the content of those beliefs. By contrast, my goal is to avoid this “top-down” orientation predicated on investigators’ representations of sexual orientation categories in favor of a more critical “bottom-up” strategic social constructionist approach predicated on laypeople’s own representations.

Enabling participants to bring to bear their own representations carries additional consequences for methodology, however. Rothbart and Taylor (1992) argue that the level of inductive potential for social categories is not a fixed attribute; it may vary enormously across situations, and, by extension, both within and across cultural contexts. As such, even if representations of sexual orientation categories are widely shared by participants as members of a given society, they are unlikely to be drawn upon in the research situation unless those social categories are seen by participants to be relevant to the immediate task. A critical methodology should be capable of first activating and then engaging participants’ own mental representations of sexual orientation categories (Feature 6, Table 1). My proposed solution is to utilize a strategy for priming participants’ representations of sexual orientation categories.
**Theoretical justification.** Priming techniques generally entail exposure to stimuli that can facilitate, or *prime*, participant’s existing mental representations (e.g., stereotypes) of social targets, events, or situations which, in turn, can influence participants’ subsequent evaluations during ostensibly unrelated tasks (Bargh & Chartrand, 2000; Higgins, 1996; Higgins & Eitam, 2014). The more accessible a representation, the more likely it is to come to the fore in the participant's mind and guide interpretation and subsequent evaluation (DeCoster & Claypool; Hong et al., 2000; Kitayama & Uskul, 2011). The influence of priming may be subtle, influencing people’s responses even when they do not deliberately connect these cues to that current task (see Higgins, 1996). However, it is important to note that although priming effects are presumed to involve a lack of awareness for the specific influence of the prime on participants’ responses, they do not require a lack of awareness for the prime itself. The effects of the prime are presumed to arise because participants either do not recognize its potential effects on their subsequent responses or, even if they do, still do not intend to utilize the primed representations when making these responses (Loersch & Payne, 2011; 2014; cf. Cleeremans, Destrebecqz, & Boyer, 1998).

The investigation of priming effects has a long history in social psychological research (Higgins, Rholes, & Jones, 1977; Srull & Wyer, 1979; for a review, see Molden, 2014a, 2014b).

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65 In recent years scholars have mounted powerful critiques of the “automaticity” of priming effects presumed by earlier social psychologists (Bargh, 2006; Doyen, Klein, Simons, & Cleeremans, 2014; Friesen & Cresswell, 2017; Loersch & Payne, 2011; Wheeler, DeMarree, & Petty, 2014). These critiques have mostly concerned so-called *direct expression* explanations of priming effects on subsequent behavior—those without additional encoding or inference processes to sustain the effects of primed representations (Dijksterhuis & Bargh, 2001; see also Dijksterhuis, van Knippenberg, & Holland, 2014). It is important to note, however, that these critiques are more narrowly concerned with how priming influences participants’ subsequent behaviors rather than *evaluations* (Ferguson & Mann, 2014; Molden, 2014a); as such, these critiques do not directly bear on the current methodology.
While much of this priming research is grounded in cognitive psychological approaches, a growing body of priming research instead draws upon constructionist perspectives emphasizing laypeople’s active interpretation and meaning-making processes (e.g., Eitam & Higgins, 2010; Loersch & Payne, 2014). Experimental priming techniques used in recent years have further focused on exploring the role of cultural context in influencing social judgment through activation of laypeople’s relevant representations (e.g., Hong, Morris, Chiu, & Benet, 2000; Lehman, Chiu, & Schaller, 2004). Representations cued by the first phase (priming) in theory carry over to subsequent tasks; this spillover effect can then be studied by comparing groups exposed to different conditions. In this way priming techniques enable a new way to uncover contents of participants’ cultural knowledge. A crucial advantage of priming over forced-response methods for this methodology thus lies in activating participants’ own existing, culturally located representations of sexual orientation categories rather than providing the investigator’s potentially irrelevant representations for evaluation.

How does a critically reconstructed model of psychological essentialism, and by extension inductive potential, connect with a priming approach? The answer may be found in the consequence of a key concept of priming, namely that the contents of an individual's knowledge can vary in accessibility (Bruner, 1957; Higgins, 1996; Wyer & Srull, 1986). A basic research

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66 Priming approaches are not the only constructionist approaches to cognition. Other approaches include cognitive schema theory (e.g., Anderson, Spiro, & Montague, 1977; Spiro, Bruce, & Brewer, 1980); implicit personality theory (Bruner & Taguiri, 1954); multiple theoretical models of impression formation (Brewer, 1988; Fiske & Neuberg, 1990); and sexual script theory (Gagnon, 1990; Gagnon & Simon, 1973). For example, sexual scripts are theorized to operate at intrapsychic, interpersonal, and cultural levels and to emerge during the presentation of stimulus materials to research participants (cf. Plummer, 1982).

67 These priming studies approached cultural knowledge as a loose network of domain-specific knowledge structures that are variably accessible to cognition (Bruner, 1990; D’Andrade, 1984; Hong et al., 2000).
question for priming approaches involves how specific cultural knowledge becomes operative in a given interpretive task. Addressing this question necessitates attention to additional processes beyond semantic activation to explain the influence of priming on subsequent evaluation (Smith & Branscomb, 1987). In recent years researchers have urged greater attention to latent mediating variables capable of theoretically explain priming effects (Higgins & Eitam, 2014; see also Cesario & Jonas, 2014; Wentura & Rothermund, 2014). I argue that a model of psychological essentialism (Medin & Ortony, 1989; Rothbart & Taylor, 1992) also serves as a latent mediator. Priming participants’ representations of culturally “central” social categories (i.e., those based on sexual orientation) ought in theory to activate culturally shared beliefs in any presumed essence of those categories. Furthermore, to the extent sexual orientation categories are perceived as differing in the nature or structure of their respective essences—and consequently in their inductive richness—then the effectiveness of priming them should become apparent through experimental manipulation of those categories across groups of participants.

**Methodological application.** If sexual orientation categories comprise a culturally powerful discourse of sexuality in a given context, it then follows that it should be possible to prime these categories. My proposed methodological solution is to initially expose participants to stimuli that prime local discourses of sexuality, inclusive of sexual orientation categories; those discourses may then be accessed during a subsequent evaluation task. As a priming approach relies on the individual participant’s discursive representations of local sexuality discourses, it by design additionally avoids cultural localization issues inherent to standardized forced-response scale-based approaches. Yet for precisely this reason, great care must be taken in constructing

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68 Examples of such conceptual mediators include models of individualism and collectivism (Oyserman & Lee, 2008) and biculturality (Hong, Chiu, & Kung, 1997; Hong et al., 2000; Zou, Morris, & Benet-Martinez, 2008).
the priming stimulus; failure to avoid deploying investigators’ own representations would consequently undermine the conceptual advantages of a priming approach.

Generally, investigators should introduce the construct of sexual orientation categories without explicitly or implicitly providing any information that might communicate valuations of those categories (e.g., stereotypes, lay theories of ontology, relative ubiquity). Primed with only minimal references to the concept of discrete sexual orientation categories, participants should have recourse only to their own discursive representations as a way of “filling in the gaps” on a subsequent evaluation task. While the precise means of introducing the priming stimulus may vary by investigation, in general it should procedurally occur in an inconspicuous manner (e.g., under the guise of a cover story or embedded within additional “introductory” information at the start of participation) to avoid threats to internal validity posed by demand characteristics. A distraction task is advisable following introduction of stimulus materials, preferably one ostensibly unrelated to topics evocative of sexual orientation categories or issues directly pertaining to sexuality.

From Survey to Experiment: Impressions of a Target’s Identities

If sexual orientation categories are perceived by laypeople as essential and therefore inductively rich in meaning, it then follows that these categories, when primed, ought to activate discursive representations that in turn serve as organizing principles in a subsequent evaluation task. Further, to the extent laypeople collectively find these sexual orientation categories to be inductively rich in meaning those categories may be said to be culturally salient (see Guiot, 1977). I propose to employ an impression formation task within the context of an experimental design utilizing fictional vignettes in which the behavioral and emotional cues of a target are
manipulated to coincide with sexual orientation categories (e.g., heterosexual, homosexual). I further propose an operational outcome of this impression formation task predicated on laypeople’s evaluations of the fictional target based on their attributions of that target’s perceived identities. I proceed to delve further into the social constructionist potential of each of these design choices.

**Theoretical justification.** Despite a degree of conceptual overlap, research on psychological essentialism has only been incidentally related to the history of research on person perception and, by extension, impression formation. However, Yzerbyt and colleagues (1997) suggest that essentialistic thinking about social groups may polarize observers’ evaluations and thus lead them to neglect situational constraints that might otherwise impinge on the process of impression formation. Indeed, earlier experimental studies investigating laypeople’s anti-gay attitudes frequently relied on a cover story of first impressions (e.g., Cuenot & Fugita, 1982; Gurwitz & Markus, 1978; Karr, 1978; Kite, 1992; Kite & Deaux, 1986; San Miguel & Millham, 1976; for a contemporary example, see Talley & Bettencourt, 2008). In many (if not most) cases, these studies’ designs were predicated on scripted, explicit self-labeling by targets (usually as homosexual and heterosexual). However, as direct disclosure of sexual identity (e.g., description of gay-specific activities, references to a romantic partner) may convey information to participants beyond sexual orientation (e.g., political ideology), more recent experimental

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69 Cognitive psychologists argue that, to the extent social categories are culturally “privileged,” they have an advantage as they have important cultural meanings that are often relevant to forming impressions of others (Fiske, Lin, & Neuberg, 1999; Leyens, Yzerbyt, & Schadron, 1994). This language bears striking conceptual similarity to Rothbart and Taylor’s (1992) description of the relative “centrality” of social categories in determining their inductive potential.

70 Hegarty and Massey (2006) note that these past direct identity disclosure studies more accurately assessed differential responses to individuals who are “out” about their sexuality compared to those who “pass” (i.e., are perceived as straight). As they argue, drawing upon
studies have limited manipulation to a fictional target’s behavioral and emotional cues (e.g., Cox et al., 2016; Horn, 2006). Scripted vignettes greatly aid such tailoring of the target’s performance while maintaining the capacity for between-group comparison. As such, the current methodology would also benefit from fictional first-person narrated vignettes consisting of experimental manipulation of that narrator’s sexual behavioral and emotional cues.

The repertoire of discursive representations which can be addressed or used in any given situation is broad and complex (Breakwell, 1993). Consequently, the representations drawn upon in the impression formation task will necessarily be influenced by the social identities and cultural experiences of the individual participant. However, while participants may form impressions both in stereotypic, category-oriented ways and in individuated, attribute-oriented ways, many impression formation models assume that the more category-oriented processes dominate the more attribute-oriented processes as it is generally easier to assimilate additional information about a target into pre-existing categories (Brewer, 1988; Fiske & Neuberg, 1990; Leyens et al., 1994). Regardless, it should be possible to control for the presence of individual differences through the random assignment of participants to experimental groups. To the extent sexual orientation categories are perceived to possess differing degrees of inductive potential, detection of group-level differences by experimental condition should consequently reflect both the presence and content of such culturally shared representations.

Butler’s (1990) concept of performativity, “we might understand these targets [sic] identity enactments as performative of identity. If the targets’ methods of performing identity are understood as constituting identity in different ways rather than simply reporting the same underlying identity, then it is less clear that these experiments are all examining the same social psychological processes. Explicit declaration of one’s homosexuality, mention of involvement in a gay student group, and the wearing of a gay-positive button are not equivalent speech acts, and each accomplishes something more than the revelation of a presumed underlying identity” (p. 58, italics in original)
However, as sexual orientation categories in this critical amalgam methodology are not explicitly prompted (as in forced-response survey approaches) but rather implicitly inferable through the experimental manipulation of gender cues for both target and object, the question emerges as to what an appropriate construct for the outcome(s) of this impression formation exercise might look like. At this point it is instructive to recall that the impression formation exercise for this methodology necessarily relies on participants’ observations of a fictional target’s behavioral and emotional cues—explicit performances of identity are avoided. This design choice stems directly from a strategic social constructionist methodology, which recognizes that categorizing sexual behaviors into distinct sexual identities constitutes one major feature of essentialist thinking. As such, for the purposes of the proposed methodology the outcome ought to focus on the construct of identity to allow participants themselves the opportunity to make the connection between sexual behavior and sexual identity.

While a primary focus of the psychological study of identity concerns the presentation of self, or the behaviors actors perform to convince others of an identity (e.g., Burke & Reitzes, 1981; Goffman, 1959; Klein, Spears, & Reicher, 2007; Mead, 1934), scholars across disciplines have long argued that identity also involves the attributions others make based on perceptions and subsequent evaluations of a performer’s behaviors (Asch, 1946; Berger & Luckmann, 1966; Bruner, 1957; Mullaney, 1999; Turner, 1968).71 Discursive and narrative psychologists have in

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71 As far back as James (1890), social psychologists have recognized the role of observers as “social judges” of others’ social identities (p. 315). Asch (1946) started formal studies on impression formation, asking subjects to describe fictitious persons’ qualities along a continuum from “warm” to “cold” (see also Kelley, 1950). Both Mead (1934) and Goffman (1959) argued that the audience receives attention not in its own right, but only in relation to its role in attempting to understand the cognitive processes of the actor. For Bruner (1957), identity represented the range of inferences about properties, uses and consequences that can be predicted from certain social cues acting as signals of category membership.
recent years been at the forefront of conceptualizing identity not as some sort of independently existing reality outside the individual, but as an active construction by the individual over the life course (Davies & Harré, 1990; Davis, 2015; Versluys, 2007; Hammack, 2008; Cohler, 1982).

Similarly, a large body of work associated with social constructionist and queer theoretical positions has conceptualized sexual identity not simply a trait to be performed but rather as the performance itself (e.g., Butler, 1990, 1993; Sedgwick, 1993). Butler (1990, 1993) argued that discourses about physical sex were organized by speech acts; in turn, such acts could be influenced by culture. Repeated performances, she argued, “congeal over time to produce the appearance of substance, of a natural sort of being” (p. 33).

Social constructionist and queer theoretical critiques of identity-as-ontological-reality serve to highlight the cultural power of identity-based sexual orientation categories. For the researcher, sexual orientation categories thus remain heuristically useful discursive constructs for researching laypeople’s essentialist beliefs. Analysis of laypeople’s engagement with these sexual identity discourses allows the researcher to investigate what social categories and their relations make possible for the individual (Lather, 1991; Riley, 1988; Wetherell, 2008). Rather than essentialist conceptualizations of observers’ attributions of a target’s identity or identities as potentially biased and therefore unreliable (e.g., Gilbert, 1998; Jones & Harris, 1967; Ross, 1977; cf. Malle, 2006), a critically reconstructed model of psychological essentialism renders such “cognitive bias” itself the object of inquiry (see Medin & Ortony, 1989; Rothbart & Taylor, 1992; Yzerbyt et al., 1997). In elevating the observer (participant), rather than the performer (fictional target) to the subject of investigation, it therefore becomes possible to investigate participants’ essentialist thinking about sexual orientation categories through investigation of their identity attributions.
A further consequence of the social construction of identity is that identity may not be unitary. Indeed, recent decades have seen growing critical consensus on the polyvalence or multiplicity of identity (Davies & Harré 1990; Goffman, 1968; Lawler, 2014; Rosenberg, 1979). According to this view, individuals construct multiple identities in structured, relational and context-specific ways (Markus & Sentis, 1982; Massey & Ouellette, 1996; McCall & Simmons, 1978; McCrae & Costa, 1988; Rosenberg, 1979). The polyvalence of identity necessarily entails that individual identities can vary in the relative degree to which they are central or peripheral, cardinal or secondary, major or minor parts of an overall identity structure (Rosenberg, 1979). The relative centrality of an identity in this structure is a consequence of the subjective value or degree of support accorded by the individual as well as by others for the identity (Brenner, Serpe, & Stryker, 2014; McCall & Simmons, 1978; Stryker & Serpe, 1994). Implicit in the conceptualization of identity centrality is variation in the relative importance (or “weight”) accorded identities in defining the individual’s identity structure (Banaji & Prentice, 1994; Gurin & Markus, 1988). The centrality of sexual identity (and, by definition, sexual orientation) was indirectly implicated both in early stage models of sexual identity development (Cass, 1979; Troiden, 1989). More recent work has engaged the concept of sexual identity centrality more explicitly, such as Meyer’s (2003) model of minority stress as well as instruments intended to measure dimensions of sexual minority identity (Mohr & Kendra, 2011; Riggle, Wickham, Rostosky, Rothblum, & Balsam, 2016).

72 Scholars have employed a variety of terms to describe the relative value attributed to a given identity, including self-ascribed importance (Rosenberg, 1979), identity prominence (McCall & Simmons, 1978), and identity centrality (Brenner et al., 2014; Stryker & Serpe, 1994). Hereafter, I will refer to these conceptions collectively as centrality, a simplifying tactic legitimated both by 1) their frequent interchangeable use in the interdisciplinary literature; and 2) conceptual parallels with the term “centrality” employed by Rothbart and Taylor (1992) in describing inductively potent social categories.
As social construction allows both that identity is a polyvalent construct and that identity can be attributed to others during impression formation, it thus follows that others may attribute multiple identities to a target in potentially structured ways (e.g., Anderson, 1974; Asch, 1952; Kaplan, 1975; Kashima, Woolcock, & Kashima, 2000; Mullaney, 1999). If so, conceptually allowing for laypeople’s attributions of identity structures enables exploration directly into the ways in which sexuality and other culturally relevant identities are mutually imbricated when forming impressions of a target other. Furthermore, it becomes possible to methodologically tease apart beliefs about the complex structural associations between components of sexuality (e.g., romantic love, sexual desire) and other culturally relevant identities. Investigation of laypeople’s attributed identity structures during an experimentally manipulated impression formation task should reveal group differences in participants’ inductive potential beliefs.

While components of sexuality (e.g., sexual desire, romantic love) are drawn from theory (Diamond, 2003a), the investigator’s construction of additional identity labels will likely need to be tailored to the specific cultural comparison being investigated. I draw here on an earlier theoretical framework proposed by psychologist Jean Guiot (1977), who described two inferential processes for identity attribution:

at any given time, the perceiver’s construction of the other’s identity may be characterized by either one of two inferential perspectives. “Viewing the other qua performer” involves the attribution of role-relevant qualities on the basis of observing behavior as role performance. “Viewing the other qua person” entails the linking of observed behavior to psychological causes which have their origin in the other’s [perceived] personality. (p. 692)

73 While Hubbard and Hegarty (2014) conceptualize identity as but one component of sexuality (along with romantic love, sexual desire, and sexual behavior), I argue that, in elevating the participant-as-observer as subject of investigation, participants’ attributions of the identities of a target other effectively renders these additional components of sexuality as themselves attributed identities (see the final section of Chapter 1).
Through this framework Guiot (1977) effectively rendered both problematic and researchable the ways in which categorizations in terms of social attributes and psychological characteristics contribute, in a given situation, to the identifying act. Attributions of identities are theorized to be most salient in cases where the other is a stranger to the perceiver (i.e., the participant). Furthermore, attributions of identity can be made on limited, even one time, observation of a target’s behavior (Mullaney, 1999; Park et al., 2013). As Guiot (1977) writes, “[b]ehavior observed in a particular social context supplies information to the perceiver concerning the attributes that might be imputed to the other. Identity construction invokes attributions” (p. 693; see also Mullaney, 1999; Stryker & Serpe, 1994). To the degree participants engage in essentialist thinking about sexual orientation categories and view them as inductively rich, they ought to attribute social roles and psychological traits to the target. By conceptualizing identity attributions of targets along multiple social roles and psychological traits, it also becomes possible to operationalize associations between components of sexuality and other identity labels in the impression formation task.74

**Methodological application.** Following initial priming, I propose engaging participants in an experimental impression formation task in which they evaluate a situational performance of sexual orientation. Such a task would ideally incorporate a fictional vignette featuring the first-person narration of a target character (the target), preferably one depicted as a member of the participants’ own cultural context to better facilitate identification and activation.

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74 While Hubbard and Hegarty (2014) conceptualize identity as but one component of sexuality (along with romantic love, sexual desire, and sexual behavior), I argue that, in elevating the participant-as-observer as subject of investigation, participants’ attributions of the identities of a target other effectively renders these additional components of sexuality as themselves attributed identities.
of participants’ representations. Decoupling performance of sexual identity from sexual behavior (Feature 3, Table 1) necessarily entails limiting the target’s narration to scripted behavioral and emotional cues—no identity-based language evocative of self-ascribed sexual orientation categories should be deployed. Given this limitation, and as gender performance may be conflated with sexual orientation (Fingerhut & Peplau, 2006; Lehavot & Lambert, 2007; Schope & Eliason, 2004), text-based vignettes may provide more control relative to visual media (e.g., video).

Rather than explicitly introduce sexual orientation categories through identity-based terminology (e.g., “gay”) or performance (e.g. description of participation in LGBT-themed activities such as a Pride march), vignettes should convey enough information to allow participants, to the extent discursive representations of sexual orientation inform first impressions, to attribute a specific sexual orientation to the target. By “enough information,” I refer specifically to gender identity information. As sexual orientation categories depend for their definition on knowledge not only of the target’s gender but also the gender of a human object of attraction, specifying both the target’s and the object’s genders in non-ambiguous terms in the vignette is necessary. Gendering can be achieved through scripted identifying information (e.g., name, pronoun use). Through the experimental manipulation of scripted gender cues associated with the object, different groups of participants can—again, to the extent their representations of sexual orientation reflect central (or powerful) discursive categories—be led to associate the

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75 By attribute in this and following contexts, I refer narrowly to elevating the observer (participant), rather than the performer (the fictional target), to the subject of investigation. This and following references to attribution should not be confused with the essentialist logic of attribution theory defining past essentialist belief studies (Heider, 1958; Weiner et al., 1989). Whereas in an attribution theoretical approach the emphasis is on the observer’s efforts to unveil the root causes of the performer’s behaviors, the critical amalgam methodology proposed here refers only to participants’ first impressions of the target’s identity.
target with distinct sexual orientation categories (Feature 5, Table 1).\textsuperscript{76} That is, sexual orientation categories in this priming / impression formation methodology are not explicitly introduced at the level of answer prompts (as in forced-response survey approaches) but rather implicitly conveyed through manipulation of gender cues. As such, sexual orientation categories become relevant to the impression formation task only to the extent participants themselves accord those categories relevance.

Avoiding identity-based language in the scripted text of the vignette allows for a decoupling of sexual behavior from sexual identity. However, as essentialist thinking depends for its definition on just such a link, I propose to operationalize participants’ attributional outcomes on this impression formation task in terms of identity. Specifically, I propose to provide participants with a set of labels reflecting social roles and psychological traits which may be associated with the target. The actual identity-based labels deployed by the investigator will necessarily depend on the cultural comparison being made; label selection should be expected to differ along lines of language, idiom, and cultural relevance. A primary advantage of this conceptual approach to the outcome measure lies in being able to operationalize perceived components of the target’s sexuality (e.g., romantic love, sexual desire) as separate attributed identity labels (e.g., as a “romantic person” or a “sexual person”; Feature 2, Table 1).

\textbf{From Scales to Fuzzy Sets: Operationalization Through Euler Diagrams}

Conceptualizing outcomes as a set of identity attributions is insufficient, however; necessary also is a means of enabling participants to depict rich associations between these

\textsuperscript{76} Contemporary critical psychologists have allowed that not only language and texts but also metaphors, categories and commonplaces may serve as mediums through which these discursive interactions are realized (for a review of alternatives, see Hepburn & Wiggins, 2007).
identity attributions. The next challenge for this critical methodology lies in designing a means of effectively operationalizing these complex interrelationships of attributed identities. Specifically, this means providing participants with an instrument with the capacity to depict associations between components of sexuality as well as social roles and characteristic traits of the target (Feature 4, Table 1). Such a requirement necessarily precludes use of standard univariate, *linear scale*-based outcome instruments such as Haslam and Levy’s (2006) EBS, which by design are incapable of capturing these rich, multiple attributional associations. Univariate ordinal scale-based instruments for hierarchically ranking these identity labels fail for the same reason (e.g., Stryker & Serpe, 1994). I propose to instead operationalize these complex, polyvalent identity structures using participant-generated diagrams depicting *sets of circles*. Below, I describe the mathematical logic underlying such set-based diagrams, as well as justify how such a diagrammatic method is simultaneously a discursive product, making it particularly well-suited to a social constructionist priming design.

**Theoretical justification.** Understanding how a diagrammatic, set-based approach represents a radical departure from standard scale-based methods necessitates critical consideration of current trends in the operationalization of constructs into variables in psychology. As Smithson and Oden (1999) argue, there is a long-standing tradition in psychology of treating discrete, nominal constructs as if they are mutually exclusive categorical *sets* and continuous ones as if they are quantified *scales*. That is, psychological constructs are often characterized either in terms of continuous values on any number of independent dimensions of meaning, or nominal values on discrete sets. These standard approaches to variable operationalization have meant that psychologists usually turn first to scale construction for continuous measures, such as degree of endorsement (e.g., Haslam & Levy, 2006). However,
any measure capable of representing polyvalent identity structures would necessarily have both a
categorical and a dimensional character—identities are distinct (categorical) yet potentially
interrelated (dimensional). Given the complexity of attributed identity structures, and as standard
operationalization strategies will not suffice, it becomes necessary to think outside the proverbial
methodological box.

My proposed solution is to operationalize these potentially structured identity
attributions using an outcome instrument that enables participants to construct Euler (pronounced
“OY-ler”) diagrams. Mathematically, Euler diagrams are collections of sets connected with
a rule that determines membership or non-membership in the set. Because these identity category
sets additionally permit partial membership (or membership in degree), they are referred to as
“fuzzy” sets (Zadeh, 1965). Fuzzy sets thus combine set-wise thinking and continuous
variables in a rigorous fashion, allowing for theoretical fidelity with more complex models more
amenable to social scientific investigation (Smithson & Verkuilen 2006).

Euler diagrams are often confused with Venn diagrams; as such, a brief explanation of
key differences is warranted here. Like a Venn diagram, a Euler diagram is a structured method
for translating complex interrelationships among ideas into pictorial form. Graphically, Euler
diagrams consist of simple closed contours in a two-dimensional plane. However, whereas Venn
diagrams are by convention visually restricted to overlapping circles, the contours comprising
Euler diagrams may take any closed contour shape, inclusive of circles or circle-like objects

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77 Although the term “fuzzy” often carries a pejorative connotation in everyday speech, the
mathematics of fuzzy set theory is precise. Unlike classical set theory, where an object is limited
to either being a member of a set or not, in fuzzy set theory membership of an object in the set is
conceptualized as a proportion, ranging across the unit interval from 0 (no overlap) to 1
(complete overlap). As values of precisely 0 or 1 are identical to the options available to classical
sets, fuzzy sets may be conceptualized as a generalization of classical set theory (Smithson &
Verkuilen, 2006; Zadeh, 1965).
(circular contours). The visual flexibility of Euler diagrams is thus ideally suited to either computer or handwritten generation. The precise number of contours can be dictated by the needs and research questions of the investigator. The internal regions of these closed contours are known as *sets*; overlap between contours demonstrates the relationships between the sets. Unlike a Venn diagram, which may become visually complex as it must represent all combinations of overlap of its constituent sets, Euler diagrams represent only relevant relationships between sets. As such, Euler diagrams are easier to visualize as membership in the set is indicated by relative degree of (non)overlap (see Figure 1).78

![Venn diagram](image1) ![Euler diagram](image2)

*Figure 1.*

Graphical comparison of Venn and Euler diagrams

Each Euler diagram exists within a “universe of discourse” (Boole, 1854/2003), making such diagrams particularly useful for visualizing complex hierarchies and interrelated

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78 A Venn diagram may be considered a more restrictive case of a Euler diagram. Mathematically, the only possible relationship between sets in a Venn diagram is one of partial inclusion (intersection). However, there are four possible relationships between any two sets in a Euler diagram: completely inclusive (subset), completely identical (union), partially inclusive (intersection), and exclusive (disjointed) (Figure 1).
constructs. Visually, a Euler diagram is, at its most basic, a diagrammatic means of representing objects—often circles or circle-like shapes (circular contours)—and their relationships (or lack thereof). These circles may vary freely in relative size and overlap, making them ideal for visualizing the relative centrality of identities within an identity structure. As the goal of identifying the underlying structure of set-based constructs is shared more broadly by methods for sorting data (e.g., Q-sorting), placing this application of Euler diagrams within the domain of sorting methods more generally. Indeed, sorting methods have previously been used with laypeople’s categorization of targets’ identities, suggesting that perceived traits and social roles can be meaningfully classified based on their kind and their integrative centrality (Coxon, 1999, 2010; Stringer & Coxon, 2008). In a sense, Euler diagrams provide a means of visualizing this sorting process, realizing literally Markus and Kitayama’s (1991) metaphorical diagrams of culturally contextualized identity structures (p. 226).

Furthermore, as complex representations can be rendered in compact visual form, Euler diagrams are also an intuitively accessible means for participants to graphically represent sets and their intersections (Calvillo, DeLeeuw, & Revlin, 2006; Roberts & Sykes, 2005; Sato & Mineshima, 2015; Sato, Stapleton, Jamnik, & Shams, 2018). Cross-culturally, using Euler diagrams means that the research participant’s story is no longer limited to verbal (either written or spoken) expression, but can also be depicted visually. This is particularly important for those

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79 In choosing circular shapes for these Euler diagrams, I had to consider the potential for mismatch between what is visually more intuitive to participants and which types of visualization are associated with greater accuracy in the literature. Riche and Dwyer (2010) established that circles perform best in both regards, followed by squares, with ellipses and rectangles jointly performing worst.

80 Sorting methods (e.g., Q-sort methodology; Stephenson, 1953; for a review, see Dziopa & Ahern, 2011) should be distinguished from Qualitative Comparative Analysis (QCA; Ragin, 1987, 2008; for a review, see Mello, 2013).
working with respondents whose native language differs from that of the investigators, or who may be asked to relay complex ideas that are difficult to verbalize (Uleman, Rhee, Bardoliwalla, Semin, & Toyama, 2000). For example, Uleman and colleagues (2000) employed such diagrams for visually operationalizing “degrees of closeness” in the relation of self to others among Euro-American, Asian-American, Dutch, Turkish, and Japanese samples.  

Central to the idea of the overlapping circles comprising Euler diagrams is emergence, both mathematically and discursively, wherein complex ideas are actively constructed from simpler elements which together make more than the sum of their parts (Gray, Schein, & Cameron, 2017). As such, the Euler diagram is uniquely situated as a constructivist data collection tool amenable to both quantitative and qualitative analytic strategies. While Rosch (1973, 1975, 1978) years ago opened the door for psychologists to take advantage of the constructionist logic of fuzzy sets, and by extension the visual intuitiveness of Euler diagrams, implementation to date has been limited. This is somewhat surprising in the area of measuring

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81 It is important to note that Uleman and colleagues (2000), while recognizing the utility of Euler diagrams as a visual metaphor for minimizing translation difficulties, nevertheless failed to engage the underlying fuzzy logic of this diagrammatic approach. Instead, the investigators relied on a standard scaled approach in which item response options merely replaced text with simple variations on the same Euler diagram.

82 Despite the shared constructionist logic of emergence underpinning both Euler diagrams and other diagrammatic methods in psychology, psychologists have often construed diagrammatic methods (e.g., mapping) as incompatible with quantitative experimental approaches (e.g., Futch & Fine, 2014). Such qualitative methods include concept mapping (Trochim, Cook, & Setze, 1994), cultural domain analysis (Borgatti, 1994), and other approaches for the cognitive mapping of relationships between space, place, and social and physical features of the physical and built environment (e.g., Gieseking, 2010; Lynch, 1960; Milgram & Jodelet, 1970; Rust, 2000).

83 To date, fuzzy concepts have appeared more often in cognitive-scientific areas (e.g., logic, cognitive science) than in socio-scientific areas such as social psychology. In psychology, fuzzy set-based theories of perception (e.g., Oden & Massaro, 1978) and memory (Massaro, Weldon, & Kitzis, 1991) have appeared, and fuzzy sets have been used to solve measurement problems and provide novel data analysis tools (e.g., Hesketh, Pryor, Gleitzman, & Hesketh, 1988; Smithson, 1987; for a review see Smithson & Oden, 1999). However, in recent years fuzzy sets have garnered greater attention in the area of “big data” processing across disciplines (for a
essentialist beliefs about sexual orientation, as it was the same Eleanor Rosch and colleagues whose insights first enabled development of a model of psychological essentialism (Rosch & Mervis, 1975; Rosch et al., 1976; for discussion, see Medin, 1989; Medin & Ortony, 1989).

Methodological application. In terms of methodological application, participants would first be presented with a list of identity labels corresponding to the perceived behaviors and emotions of the fictional target from the impression formation task. Participants would then be prompted to apply these labels visually through construction of a Euler diagram. For the purposes of this methodology, each circular contour would depict one of these attributed identity labels (hereafter identity circle). As such an instrument may be unfamiliar to participants, however, instructions for their creation may not suffice during data collection. Investigators may additionally include a sample Euler diagramming exercise prior to the impression formation task (and ideally unrelated to that latter task). This sample exercise might also serve the purpose of a distraction task following initial priming of a sexual orientation discourse.

The resultant participant-generated Euler diagrams afford investigators a potential wealth of analyzable data. A key advantage of Euler diagrams lies in allowing participants the freedom to structure identity circles as they see fit. Such freedom in turn provides investigators with a multitude of measurable outcomes as different configurations of the same identity circles can make for different empirically analyzable phenomena. Quantitative data may be generated through a variety of relative identity circle area or distance measurements, among other options, either by hand or with computer assistance. Those Euler diagram measurements may then be subjected to simple group-level comparison using inferential statistical procedures. These diagrammatic patterns are also be amenable to qualitative analysis. For example, to the extent

review, see Wang, Xu, & Pedrycz, 2017).
investigators’ selection of identity labels reflects previously theorized relationships between cultural discourses of sexuality and other relevant social ways of being, a discursive level of analysis may be enabled through visual inspection of thematic patterns in participants’ identity circle structures (e.g., overlap patterns). One caveat to both quantitative and qualitative analytic approaches, however, is that while the rich complexity of these diagrams permits great flexibility in available analytic options, the inclusion of multiple identity circles can lead to cluttered, difficult to interpret visuals (see John, 2005). As such, investigators are cautioned to take care in the number of identity circles utilized.

Analytically Inferring Beliefs in Inductive Potential: A Mixed-Methods Approach

The final challenge for this proposed critical methodology lies in effectively determining how participants’ inductive potential beliefs may be inferred from their generated Euler diagrams. Recalling Rothbart and Taylor (1992, p. 13), inductive potential is defined as “the ability ‘to go beyond the information given.’” In this proposed critical methodology, the “information given” is operationalized through the manipulated behavioral and emotional cues associated with the fictional target across experimental conditions in the impression formation task; “going beyond” is operationalized through group-level inferential analyses of generated identity circle structures. It thus follows that participants’ inductive potential beliefs are not directly measured but rather analytically inferred from participants’ Euler diagrams. Yet while the existence of statistically significant results (e.g., in the direction of group-level differences) would evidence the presence of inductive potential beliefs (Feature 6, Table 1), subsequent interpretation of inductively rich meanings associated with those outcomes would depend on the specific cultural contexts being investigated and investigators’ discursive knowledge of those
contexts. To that end, I detail a mixed-method approach to analysis and interpretation of the group-level differences in Euler diagram patterns.

**Theoretical justification.** The data for quantitatively evaluating these Euler diagrams is constituted from mathematical distance and area measurements of the circular contours comprising participants’ self-generated Euler diagrams (e.g., in terms of identity circle centrality); comparison of these measurements across experimental conditions may then be carried out by means of inferential analytic procedures. This two-step approach conceptually coincides with the notion of *formalist interpretation* in fuzzy set theory, which assigns set membership functions solely in mathematical terms by mapping an underlying support variable into the membership scale (Smithson, 1987; Smithson & Verkuilen, 2006). In this methodology the support variable(s) are the geometric measurements of participants’ drawn identity circles; degree of set membership—or, in this methodology, drawn overlap between identity circles—can subsequently be determined through inferential statistical procedures specific for analyses of data bounded by the unit interval.

Yet, as previously noted, Euler diagrams must also be recognized as discursive products. Participants’ meaning-making processes in forming impressions of a fictional target’s identity structure—reflected through the medium of these diagrams—should thus be understood also as “discursive actions” (Potter & Wetherell, 1987). The constructed, discursive character of Euler diagrams further renders it imperative for the investigator to “mind the gap” between analysis and interpretation (Gray et al., 2007). As participants may not be able to adequately describe their own thought processes behind construction of the diagrams in detail, and as these discursive processes may be influenced by cultural context, a major challenge for investigators becomes how to *meaningfully* interpret the presence of statistically significant group-based
patterns in these complex outcome measures. Furthermore, critical psychological approaches demand investigators’ reflexivity during this process of interpretation (Teo, 2015). This entails investigators constantly interrogating both the discursive models of sexuality and culture they themselves bring into the interpretive process as well as their rationale for selecting specific identity circle patterns for analysis (Feature 4, Table 1).

My proposed solution to this interpretive challenge is to utilize the participant-generated Euler diagram not only as a quantitative outcome measure but also as a discursive tool—one that allows quantitatively detected patterns to sit in conversation with another data source, such as interviews or focus groups, to guide interpretation of these patterns (for another example of such an approach, see Katsiaficas, Futch, Fine, & Sirin, 2011). Resulting analysis of diagrammatic data may be considered mixed-method to the extent subsequent qualitative data inform interpretation of the Euler diagrams. Yet unlike similar mixed method designs predicated on investigators’ own qualitative interpretations of prior quantitative analyses (e.g., Creswell, Plano Clark, Gutmann, & Hanson, 2003; Tashakkori & Teddlie 1998; Teddlie & Tashakkori, 2006), in this critical amalgam methodology the subsequent qualitative data collection protocols would directly incorporate participants’ own evaluations of the Euler diagrams. In this way, and more in line with critical and feminist psychological approaches,

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84 While some scholars have defined mixed methods as quantitative and qualitative methods simultaneously occurring at the stages of either data collection or analysis, others suggest that mixing may occur, even asynchronously, at all stages of the research process (for a review, see Johnson et al., 2007; Teddlie & Tashakkori, 2006).

85 Such an approach bears similarities to sequential explanatory design (Creswell et al., 2009; Hanson, Creswell, Plano Clark, Petska, & Creswell, 2005; Ivankova, Creswell, & Stick, 2006). Mixed-method sequential explanatory design is characterized by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data; the two methods are integrated during the intermediate stage as well as in the interpretation phase of the study (Creswell et al., 2003). The purpose of this design is to use qualitative results to assist in explaining and interpreting quantitative findings (Creswell, 2009; Morse, 1991). In the sequential
investigators would not treat participants as mere sources of data in the research process but rather as active agents during the process of data analysis (Alcoff & Potter, 1993; Teo, 2015). Joint analysis of the Euler diagrams by investigators and participants would also guide the selection of identity circle patterns for later inferential statistical analyses and subsequent discursive interpretation of inductive potential beliefs, in the process establishing the credibility of both methods and analytic findings (see Hardin, Robitschek, Flores, Navarro, & Ashton, 2014).

**Methodological application.** My proposed solution for addressing these challenges is twofold. First, investigators would be well advised to possess both theoretical and practical experience in the cultural contexts under investigation. Inclusion of multiple cultural contexts (i.e., for cross-cultural comparison) would consequently necessitate investigators possessing a high degree of competence and familiarity across those contexts, suggesting that investigators explore collaborations with colleagues well-versed (or native to) cultural contexts being investigated. Collaboration among investigators should ideally be present at all stages of research, from instrument specification (e.g., vignette content, identity circle section) to Euler diagram interpretation (Feature 4, Table 1).  

Second, investigators should recruit the original participants and/or their peers as an “interpretive community” (Fish, 1980), both for the purposes of selecting diagrammatic patterns for analysis as well as for corroborating investigators’ subsequent interpretations of statistically significant group-level differences. Ideally, such data would be obtained through follow-up data explanatory design, a researcher typically develops the qualitative data collection protocols and selects participants for the qualitative follow-up analysis based on the initial quantitative results (Creswell et al., 2003).

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86 My use of the plural form, “investigators,” throughout this section is intended to emphasize the importance of the cross-cultural collaborative nature of this critical methodology.
collection in which either the participants themselves or peers of the original participants are presented with a selection of Euler diagrams generated during initial data collection. Participation in the analytic and interpretive phases of research might take the form of individual interviews, or, if culturally appropriate, focus groups. These interviews and/or focus group activities would center on previously generated Euler diagrams as a means of eliciting discussion of culturally shared representations of sexual orientation categories as well as sexuality more broadly. Additional sources of data might include investigators’ written observational notes and/or participants’ own open-ended responses. Activities would center on evaluation of previously generated Euler diagrams within the context of broader discussion of culturally shared representations of sexuality and sexual orientation categories.
PART II

Investigating Inductive Potential Beliefs in the US and Japan Using the Critical Amalgam Methodology
Introduction to the Current Study: Comparing New York City and Tokyo: Rationale and Research Questions

Having described and justified the development and structure of a critical amalgam methodology for investigation of laypeople’s inductive potential beliefs about sexual orientation, it remains in the second half of this dissertation for me to explore this methodology empirically through a cross-cultural comparative, experimental investigation in New York City and Tokyo, Japan. Research on essentialist beliefs has primarily taken a minoritizing approach of focusing exclusively on laypeople’s beliefs about homosexuality and/or homosexual men (e.g., Haslam & Levy, 2006; Morandini et al., 2017), although more recent studies have investigated instead relative beliefs about both heterosexuality and homosexuality (Hubbard & Hegarty, 2014). I therefore opted to test this critical amalgam methodology on inductive potential beliefs about the social categories “heterosexual man” and “homosexual man” in these two cultural contexts.

I chose to apply a critically reconstructed psychological essentialism dimension of inductive potential to laypeople’s beliefs about these two sexual orientation categories. I generally predicted that, to the extent laypeople mobilize essentialist beliefs about the different inductive potential of heterosexual and homosexual orientation categories, an observed target’s sexual desire and romantic love should assume an exaggerated role in how that target person is understood and evaluated. I argue that while I cannot directly measure participants’ inductive potential beliefs, I can analytically infer their presence through the ways those beliefs are discursively mobilized through the generation of Euler diagrams as described in the previous chapter. In the remainder of this brief introduction to the current study, I provide a rationale for my selection of New York City and Tokyo for my test of a critical amalgam methodology as
well as my selection of these two components of sexuality—sexual desire and romantic love—as outcome measures for operationally defining laypeople’s essentialist thinking.

Choosing Sites for Cultural Comparison: New York City and Tokyo

I have chosen to test this two-part method through a cultural comparison of US and Japanese contexts. As I have already made the case for the presence of essentialist discourses of sexual orientation categories in US context (e.g., Sedgwick, 1990; others), two tasks remain in establishing a rationale for my chosen cultural comparison of New York City and Tokyo: 1) to establish evidence for the presence of essentialist discourses of sexual orientation in contemporary Japan; and 2) to explain why this specific cultural comparison ought to be generative in terms of potential variation in the content and structure of laypeople’s discursively mobilized representations of sexual orientation categories. My purpose in selecting these two cultural contexts was thus to balance comparability with variability.

Specifically, I aimed to select cultural contexts comparable in terms of socio-economic level (e.g., GDP; International Monetary Fund, 2015), human rights record (United Nations Human Rights Council, 2012; UNOHCHR, 2008), familiarity with the research methods I developed, and tolerance toward homosexuality. The use of Euler diagrammatic applications in both the US (Aron, Aron, & Smollan, 1992) and Japan (e.g, Sato, Wajima, & Ueda, 2014)

It is also important to recognize this study does not constitute a comprehensive comparison of “the US” and “Japan,” but more specifically the New York City and Tokyo metropolitan areas. Chauncey (1994) argues that the complexity of New York’s social structure makes it an ideal subject for investigations of cultural discourses about sexuality in the United States due to the city’s outsize historic and contemporary role as a national center of intellectual, cultural, and political ferment. As such, Chauncey (1994) suggests that while New York “may not be typical… New York may well [be] prototypical, for the urban conditions and cultural changes… were almost surely duplicated elsewhere” (p. 28-29). A similar conclusion could be made for Tokyo in relation to Japanese society on the basis of this argument.
implicates their conceptual accessibility. Indeed, psychologists have previously constructed scales made up of Euler diagrams in comparing undergraduate students in New York City and Tokyo in past cognitive research (Uleman et al., 2000). Furthermore, US and Japan both demonstrate similar levels of tolerance toward homosexuality (Valfort, 2017). These similarities thus offer a kind of “baseline” for comparing the capacity of my critical amalgam methodology to uncover potential variation in how laypeople draw on cultural discourses of sexual orientation in each of these national contexts. Finally, on a pragmatic level, my previous experiences living and working in both these cities rendered this an accessible comparison given my cultural and linguistic knowledge.

At the same time, a large body of social psychological evidence points to the existence of cultural differences between these two contexts. Indeed, contemporary cognitive models of culturally differentiated social psychological processes have their origins in comparisons between the US and Japan (e.g., Kitayama & Markus, 1995; Kitayama, Markus, Matsumoto, & Morasakkunkit, 1997; Markus & Kitayama, 1991; Nisbett, 2003; Triandis, 1988, 1995). Sexual orientation beliefs—primarily etiological beliefs—have also been investigated in Japanese contexts (e.g., Furnham & Saito, 2009), indicating the presence and work of sexual orientation discourses in Japan. This large body of literature has led some to conclude that the East-West paradigm will, for better or worse, continue to be important in cultural psychology (Kitayama & Uskul, 2011). However, as a major purpose for developing the critical amalgam methodology in this dissertation was to trouble these cognitive models by demonstrating the empirical utility of an approach to essentialist beliefs based in discourse, my proposed comparison of US and Japanese contexts represents an opportunity to directly test this methodology in response to the social cognition literature.
Sexual Desire and Romantic Love: Deriving Experimental Predictions for Study 1

The remaining issue in translating a critical amalgam methodology into an executable method lies in operationally defining specific outcomes associated with “centrally defining” features of the social categories “heterosexual man” and “homosexual man.” This led me to return to the concept, discussed in Chapter 1, of a “strategic” social constructionist approach of sexuality comprised of multiple components as a promising starting point (Diamond, 2003a; Regan & Berscheid, 1995). Specifically, I chose to focus my empirical predictions in relation to two components of sexuality common to these psychologists’ work: sexual desire and romantic love. The following research questions therefore drove Study 1:

1. To what extent, and in what ways, do laypeople discursively mobilize inductive potential beliefs about homosexual and heterosexual men’s sexual desire and romantic love?

2. To what extent, and in what ways, is laypeople’s discursive mobilization of those inductive potential beliefs explained by their gendered and/or cultural contexts?

I next turn to the psychological literature concerning stereotypes of homosexual men to derive predictions on how those components ought to be inductively invested with meaning by laypeople for these two sexual orientation categories.

Sexual desire. In my review of the literature, a consensus emerged on laypeople’s stereotypical representations of gay men as reduced (and reduceable) to their sexuality. For example, Nadal and colleagues (2010) suggested that LGBTIQ+ people in the US experience exoticization when they are dehumanized or treated like a sexual object. Narratives concerning the hypersexualized nature of LGBTIQ—and particularly gay male—communities were
common and seen within media and advertising (Grace, 2004) and public spheres (e.g., Danay, 2005). While few studies on stereotypes concerning gay men were available in the Japanese psychological literature, what I could find suggested that similar stereotypes are common among laypeople in Japan as well (Hidaka et al., 2006; Lee, Lee, & Kimura, 2010; Miyazawa & Fukutomi, 2008). Taken together, these studies suggest that the social category of homosexual man is inductively potent in terms of sexual desire, leading me to predict that laypeople will accord sexual desire greater centrality when evaluating a target presumed to belong to the social category of homosexual man.

**Romantic love.** Recent research on sexual orientation beliefs suggests that romantic love as a discourse may be primarily associated with heterosexuality (Hubbard & Hegarty, 2014). The literature on minority stress (Meyer, 2003) supports this interpretation, collectively suggesting that gay men in interpersonal romantic relationships are subject to social and environmental stigma-related processes that are distinctively products of the social devaluation of male same-sex relationships and intimacy (Frost & Meyer, 2009; Kamen, Burns, & Beach, 2011; Meyer & Dean, 1998; Rostosky, Riggle, Gray, & Halton, 2007; Todosijevic, Rothblum, & Solomon, 2005). This is because heterosexuality is discursively positioned as the proper domain for romantic love (Herek, 2006). As such, it stands to reason that romantic love may be associated less with a homosexual target relative to a heterosexual target. As with sexual desire stereotypes, a paucity of psychological research in Japan led me to look in neighboring disciplines for guidance (e.g., Mitsuhashi, 2013; Ryang, 2006). Based on these patterns in the interdisciplinary literature of romantic love as the prerogative of heterosexual and not homosexual men, I predicted that romantic love should be accorded less centrality when evaluating a target presumed to belong to the social category of homosexual man. In the
following chapter I lay out an experimental method for empirically testing these two predictions.
CHAPTER 4: Mixed-Method Operationalization of the Critical Amalgam Methodology

Through a critically reconstructed model of psychological essentialism grounded in discourse, I predict that, to the extent participants in both New York City and Tokyo mobilize essentialist beliefs about the different inductive potential of heterosexual and homosexual orientation categories, a fictional target’s sexual preferences should assume an exaggerated role in how that target person is understood and evaluated by the participant. As such, I do not directly measure participants’ inductive potential beliefs but rather analytically infer their presence through detection of group-level differences in participants’ Euler diagrammatic outcomes. This inferential leap thus requires a two-step method. In the first step (Study 1) and using inferential statistical procedures, I investigate the presence of group-level patterns in relation to two components of sexuality: *sexual desire* and *romantic love*. I investigate these two components across four Euler diagrammatic outcome measures of *prominence*, *synthesis*, *permeation* and *association*. In a subsequent step (Study 2), I describe recruitment and data collection during separate focus groups of student peers of the Study 1 participants to act as interpretive communities in evaluating a selection of Euler diagrams produced during the first step.

I proceed in this chapter to detail this two-part method, including: participant recruitment; stimulus material construction, including priming and impression formation task; the Euler diagram instrument and operational outcomes; and procedures for initial data collection and follow-up interpretive community analysis. Using this two-part method, I enable an informed approach to my own subsequent interpretations of the quantitative patterns from the first step in a way that helps me establish the credibility of those interpretations in the second
Translating a critical amalgam methodology into an executable method led me to utilize two components of sexuality: sexual desire and romantic love (Diamond, 2003a; Regan & Berscheid, 1995). Drawing upon common stereotypes in both the US and Japan of gay men as hypersexualized or otherwise reduced to their sexual desire (e.g., Danay, 2005; Grace, 2004; Lee et al., 2010; Miyazawa & Fukutomi, 2008; Nadal et al., 2010) as well as relatively disassociated from discourses of romantic love (Hubbard & Hegarty, 2014; Ryang, 2006) led me to derive the following two experimental hypotheses:

H1: Participants will perceive sexual desire as more centrally defining of a same-sex attracted male target relative to an other-sex attracted male target

H2: Participants will perceive romantic love as less centrally defining of a same-sex attracted male target relative to an other-sex attracted male target

A single outcome measure for each outcome does not a convincing pattern make, however; any one outcome in isolation could just as easily be interpreted as an artifact. Needed is evidence of clear patterns across multiple measures of the centrality of both “sexual desire” and “romantic love” if inferences concerning the presence of inductive potential beliefs are to be made. As such, I sought to test these two hypotheses over multiple outcomes meant to operationalize the “centrality” of each of these two components of sexuality using a Euler diagram instrument I
developed for this study.

Design

As past research has indicated the importance of participant gender in stereotypes about gay men in the US (Herek & Capitanio, 1999; Kite, 1984; Kite & Whitley, 1996, 1998; LaMar & Kite, 1998; Negy and Eisenman 2005; Regan & Berscheid, 1995; Worthen, 2013) and Japan (Ishimaru, 2004; Wada, 1996, 2008), I opted to make use of a mixed 2 (experimental condition) x 2 (cultural context) x 2 (participant gender) factorial design as part of an experimental vignette study in New York City and Tokyo. Participants were first primed with essentialist categories of sexual orientation through the use of stimulus materials disguised as an introductory exercise. A subsequent impression formation task had participants first read one of two randomly assigned versions of a vignette featuring a young male college student’s narration of attraction to another student, either male or female. Participants were then asked to use six provided identity labels to describe their impressions of this fictional target through the medium of a Euler diagram. I subsequently derived four distinct sets of both nominal and proportion-based outcome measures from the participant-generated Euler diagrams.

Participants

I targeted my recruitment efforts to college students aged 18-25, coinciding with a developmental period of emerging adulthood (Arnett, 2000). My selection of the two

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88 Arnett (2000) identifies emerging adulthood as a developmental period conceptually applicable in cultural contexts marked by industrialization, economic wealth and longer life expectancy, where entry into adult roles is postponed until the early twenties. These contexts are inclusive of the US (Arnett, 2011) and Japan (Ronald & Izuhara, 2016; Rosenberger, 2007). Identity exploration during this developmental period is often at a lifetime peak, undertaken apart
recruitment sites, Hunter College in New York City and Saitama University in the greater Tokyo metropolitan area, was driven by my goal to strike a balance between the needs of cultural comparability and practical constraints. Both recruitment sites are four-year public colleges situated in major metropolitan areas; further, my prior association with both institutions allowed me access to their student populations. I conducted data collection in early 2013 in Japan; I collected data from the New York site during a period spanning 2013-2015.

**Recruitment.** Data collection occurred during two separate scheduled lecture sessions. The Hunter College site provided me with access to a subject pool administered by the Department Education; however, due to the low enrollment in this subject pool, the bulk of the New York sample was drawn additionally from a separate subject pool administered by the Department of Psychology. As subsequent analyses indicated that the Education and Psychology subject pool-recruited subsamples did not meaningfully differ in terms of the outcome measures detailed below, I proceeded to treat all New York participants as a single sample (see Appendix A for full analyses). Participants at both sites completed informed consent procedures prior to data collection and were compensated with course credit. For the Tokyo site, I worked with colleagues in the Faculty of Education at Saitama University to recruit a convenience sample from among undergraduate students enrolled in an introductory education survey course.89

**Participant screening.** A total of 273 participants completed data collection from family and coinciding with a (re)examination of beliefs/attitudes (Arnett, 2000), inclusive of those concerning same-sex sexuality (Horn, 2006). Consequently, this developmental period represents an ideal window for surveying participants’ cultural knowledge, both received and discursively engaged, about male sexuality.89 Due to lack of an institutional review board mechanism at Saitama University at the time of data collection, I obtained ethics approval for both sites from the Hunter College Human Research Protection Program (HRPP). I did, however, secure recruitment and data collection permission from the Dean of the Faculty of Education at Saitama University.
procedures at the New York City site; a total of 215 participants completed data collection procedures at the Tokyo site. I opted to utilize a conservative listwise deletion strategy during screening. I screened out 65 responses at the New York site for the following reasons: 20 participants indicated having been raised fully outside the US (or not indicated); 15 provided incomplete or uninterpretable responses; 12 did not fall within the target age range (i.e., over 25 years of age) or did not indicate their age; 8 indicated lack of fluency in English language; and 5 responses contained patterns strongly indicative of response set for scale-based items (e.g., extreme answers across survey items). 90 I screened out 18 responses at the Tokyo site for following reasons: 10 provided incomplete or uninterpretable responses; 4 indicated an ethnicity other than Japanese (i.e., Korean, Chinese, other); 1 did not fall within the target age range (i.e., over 25 years of age); and 3 responses contained patterns strongly indicative of response set for scale-based items (e.g., extreme answers across survey items). For purposes of parity with the Tokyo sample, where all participants identified as cisgender, I removed an additional 5 participants from the New York sample who indicated non-binary gender identity.

Final samples. The final US sample consisted of students recruited from both the Department of Psychology (nUS1 = 159, women = 99; M_age = 19.31, SD = 1.75, range = 18-25) and the Department of Education (nUS2 = 49, women = 38; M_age = 20.71, SD = 1.23, range = 19-24) subject pools at Hunter College (CUNY); NUSTotal = 208, women = 137; M_age = 19.64, SD = 1.74, range = 18-25 years. As no group differences were detected between these education and psychology subsamples, US participants are subsequently treated as a single sample in the

90 This relatively large number of removed cases reflects practical constraints in recruitment rather than participant attrition. Screening criteria were provided to prospective participants in advance at the New York site. As the Hunter College subject pools were organized around self-selection by students, however, I was obliged to allow even students who did not meet recruitment criteria to participate.
following analyses (see Appendix A). In terms of ethnicity, US participants identified as: Black (n = 21, 10.1%); Latino/Hispanic (n = 45, 21.6%); White (n = 60, 28.8%); Asian/Pacific Islander (n = 59, 28.4%); Middle Eastern (n = 4, 1.9%); Mixed ethnicity (n = 14, 6.7%); other (n = 5; 2.5%).

Most US participants were born in the US, although 44 (22.2%) were born outside the US; all participants in the final sample were raised in the US, although 10 (4.8%) indicated being raised in part abroad. Nearly all participants (n = 205) resided in New York at the time of data collection (98.6%), with 3 residing in another US state (1.4%). The majority of participants indicated previous contact with a gay man (n = 183, 88.0%); of these, 50 (27%) indicated a close relationship while 84 (45.4%) indicated a “somewhat close” relationship and 51 (27.6%) indicated they were “not very close” to the gay man (or men) they knew. All US participants reported fluency in English (see Table 2 for full demographics, including a breakdown by psychology and education).

The final Japanese sample consisted of students recruited from introductory undergraduate courses offered through the Faculty of Education at Saitama University; N_JP = 197, women = 125; M_age = 19.36, SD = 0.90, range = 18-23. All participants recruited in Japan

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91 I did not ask for self-identified race or ethnicity but rather asked participants to select from standard, preset categories commonly reported in the literature. Given my critical psychological approach in this dissertation—one that emphasizes the material consequences of this conceptual decision (Teo, 2015)—I retrospectively realize the limitation this design decision places on my ability to discern intergroup variability within these larger categories (e.g., Asian / Pacific-Islander). I further understand the importance of remaining mindful of a problematic distinction between race and ethnicity commonly found in psychological reporting in the United States and other multiethnic / multiracial contexts. My own views align with that of Grosfoguel (2016), who argued that while ethnicity is frequently assumed in the literature to be the cultural identity of a group within a nation state, race is assumed to be the biological and/or cultural essentialization/naturalization of a group based on a hierarchy of superiority and inferiority related to the biological constitution of their bodies. As such, depending on the context of power relations involved, there are “racialized ethnicities” and/or “ethnicized races.” I attempt to capture this definitional tension through the use of the shorthand “race/ethnicity” in describing the US sample.
reported Japanese ethnicity and nationality as well as fluency in Japanese language. Participants hailed from a variety of regions throughout Japan, although a majority were raised in the greater Tokyo area, also called the Kantō region (including Tokyo, Saitama, Chiba, Kanagawa, Gunma, Ibaraki, and Tochigi prefectures; n = 117, 59.4%). Nearly all participants (n = 182, 92.3%) resided in the Kantō region at the time of data collection. Unlike their US peers, most Japanese participants reported no prior contact with a gay man (n = 149; 75.6%). Of the participants who did report such contact (n = 48, 24.4%), 10 (20.8%) reported being very close to that person, while 18 (37.5%) and 20 (41.7%) reported being somewhat close or not close at all, respectively. Full demographic information on the Japanese sample is summarized in Table 3.

It is incumbent on me to clarify my rationale for not eliciting demographic information about participants’ self-identified sexual orientation in Study 1. My purpose in this study is to understand the ways participants mobilized culturally shared discourses of sexual orientation. Given my critical approach, directly eliciting participants’ own identification in terms of sexual orientation categories would have been theoretically appropriate in helping prime such discourses. Through consultation with Japanese colleagues, however, I determined that the high likelihood that Japanese participants would choose not to disclose a non-heterosexual orientation due to privacy concerns and social stigma ran the risk of rendering such data unreliable. Consequently, I chose not to include an item assessing participants’ sexual orientation during data collection at the Tokyo site. For the purpose of parity, I chose not to inquire about participants’ sexual orientation in the US sample either. In retrospect, I would have chosen to include such an item, however. A critically reconstructed theory of psychological essentialism suggests that culturally shared discourses of sexual orientation drawn upon by participants

92 These low percentages of prior contact accord with those reported by Wada (2010).
should be similar regardless of participants’ sexual identification. Nevertheless, whether participants’ (non)heterosexual sexual and/or (non)cisgender identity moderates their mobilization of these cultural discourses remains an empirical question. To investigate this possibility further, I utilized a quasi-experimental design to compare cisgender heterosexual and queer-identified groups. As I did not detect any significant group differences in terms of H1 or H2; as such, I proceeded with the current analysis (see Appendix B).
### Table 2

**Participant Demographics for Phase 1 – US Sample**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Psychology (N = 159)</th>
<th>Education (N = 49)</th>
<th>Total (N = 208)</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>(%)</td>
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<tr>
<td><strong>Gender</strong></td>
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<tr>
<td>Male</td>
<td>60</td>
<td>(37.7)</td>
<td>11</td>
</tr>
<tr>
<td>Female</td>
<td>99</td>
<td>(62.3)</td>
<td>38</td>
</tr>
<tr>
<td><strong>Race / Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>21</td>
<td>(13.2)</td>
<td>-</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>33</td>
<td>(20.8)</td>
<td>12</td>
</tr>
<tr>
<td>White</td>
<td>45</td>
<td>(28.3)</td>
<td>15</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>44</td>
<td>(27.7)</td>
<td>15</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>3</td>
<td>(1.9)</td>
<td>1</td>
</tr>
<tr>
<td>Mixed ethnicity</td>
<td>11</td>
<td>(6.9)</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>(1.2)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Birthplace</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>124</td>
<td>(78.0)</td>
<td>40</td>
</tr>
<tr>
<td>Central/South America</td>
<td>8</td>
<td>(5.0)</td>
<td>5</td>
</tr>
<tr>
<td>East/West Europe</td>
<td>10</td>
<td>(6.2)</td>
<td>2</td>
</tr>
<tr>
<td>South Asia / India</td>
<td>7</td>
<td>(4.5)</td>
<td>2</td>
</tr>
<tr>
<td>East Asia</td>
<td>8</td>
<td>(5.0)</td>
<td>-</td>
</tr>
<tr>
<td>Africa</td>
<td>1</td>
<td>(0.6)</td>
<td>-</td>
</tr>
<tr>
<td>Other unspecified non-US</td>
<td>1</td>
<td>(0.6)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Raised</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York State</td>
<td>130</td>
<td>(81.7)</td>
<td>42</td>
</tr>
<tr>
<td>Other US state</td>
<td>19</td>
<td>(12.0)</td>
<td>7</td>
</tr>
<tr>
<td>US and abroad</td>
<td>10</td>
<td>(6.3)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Current residence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York State</td>
<td>157</td>
<td>(98.7)</td>
<td>48</td>
</tr>
<tr>
<td>Other US state</td>
<td>2</td>
<td>(1.3)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Prior acquaintance with a gay man?</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>143</td>
<td>(89.9)</td>
<td>40</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>(9.4)</td>
<td>9</td>
</tr>
<tr>
<td>No answer</td>
<td>1</td>
<td>(0.6)</td>
<td>-</td>
</tr>
<tr>
<td><strong>If yes, how close?</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very close</td>
<td>36</td>
<td>(25.0)</td>
<td>14</td>
</tr>
<tr>
<td>Somewhat close</td>
<td>68</td>
<td>(47.2)</td>
<td>16</td>
</tr>
<tr>
<td>Not very close</td>
<td>40</td>
<td>(27.8)</td>
<td>11</td>
</tr>
</tbody>
</table>
Table 3

*Participant Demographics for Phase 1 – Japan Sample*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Total (N = 197)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Gender</td>
<td>(%)</td>
</tr>
<tr>
<td>Male</td>
<td>72 (36.5)</td>
</tr>
<tr>
<td>Female</td>
<td>125 (63.5)</td>
</tr>
<tr>
<td>Birthplace</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>197 (100)</td>
</tr>
<tr>
<td>Raised</td>
<td></td>
</tr>
<tr>
<td>関東地方 (Kantō region)</td>
<td>117 (59.4)</td>
</tr>
<tr>
<td>東北地方 (Tōhoku region)</td>
<td>33 (16.6)</td>
</tr>
<tr>
<td>中部地方 (Chūbu region)</td>
<td>20 (10.1)</td>
</tr>
<tr>
<td>関西地方 (Kansai region)</td>
<td>8 (4.0)</td>
</tr>
<tr>
<td>九州地方 (Kyūshū region)</td>
<td>7 (3.5)</td>
</tr>
<tr>
<td>その他 (other region)</td>
<td>12 (6.0)</td>
</tr>
<tr>
<td>Current residence</td>
<td></td>
</tr>
<tr>
<td>埼玉県（Saitama Prefecture）</td>
<td>164 (83.2)</td>
</tr>
<tr>
<td>東京都（Tokyo Prefecture）</td>
<td>18 (9.1)</td>
</tr>
<tr>
<td>その他（other prefecture）</td>
<td>13 (6.5)</td>
</tr>
<tr>
<td>Prior acquaintance with a gay man?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>48 (24.4)</td>
</tr>
<tr>
<td>No</td>
<td>149 (75.6)</td>
</tr>
<tr>
<td>If yes, how close?</td>
<td></td>
</tr>
<tr>
<td>Very close</td>
<td>10 (20.8)</td>
</tr>
<tr>
<td>Somewhat close</td>
<td>18 (37.5)</td>
</tr>
<tr>
<td>Not very close</td>
<td>20 (41.7)</td>
</tr>
</tbody>
</table>

**Materials**

Materials for Study 1 consisted of the following: a questionnaire containing demographic questions and the Marlowe-Crowne Social Desirability Scale (MCSDS) (13-item shortform; Reynolds, 1982); original priming materials in the form of a key terms explanatory handout; an original impression formation task, consisting of fictional vignettes in the form of
brief written diary entries; and an original Euler diagramming outcome instrument.\footnote{Additional scale-based instruments included during initial data collection do not bear on the current analyses. These additional scales consisted of: the Essentialist Beliefs Scale (Haslam & Levy, 2006); the Attitudes Toward Gay Men Scale (Herek, 1988); and the Modern Homonegativity Scale (Morrison & Morrison, 2000). Ultimately, I chose not to include these instruments in the current analyses after encountering translational and conceptual difficulties during pilot testing in Japan in early 2013. Indeed, as mentioned in the Introduction, these localization difficulties directly informed the discursive approach I developed for this dissertation project.} I designed all original materials for this study in English initially; Japanese translations represented a collaborative effort with Japanese colleagues at Saitama University. Our translation process involved an initial literal translation, followed by in-depth discussion of cultural context through daily meetings during a three-week guest researcher visit to Saitama University in January 2013 and subsequent remote video conferencing meetings. All final Japanese-language translations were approved by a faculty colleague at Saitama University.\footnote{This approval process proved an exacting one, to the point that I was required to secure a new translator due to my Japanese faculty colleague’s dissatisfaction with the work of our initial translator.} Upper-level Japanese undergraduate students then reviewed translations for cultural accessibility of concepts and phrasing, as well as wording choice to best capture the original intent of the English instruments (Geisinger, 1994; on process of back-translation see also Banville, Desrosiers, & Genet-Volet, 2000; Brislin, 1970).\footnote{Geinsinger (1994) argues that literal translations are insufficient in the development of assessment devices, as the translated words used may differ in the frequency of their use, their difficulty for or familiarity to members of the culture, and their meaningful connotations. While vocabulary should be similar in both the original and target language versions, incidents and situations depicted should be equally common in their occurrence as well as similar in behavioral and construct interpretation in both cultural contexts. It is also important to recognize, however, that even the most rigorous process of translation is not perfect. Meaningful and appropriate linguistic substitutions may not be available for any number of cultural reasons (Hambleton, 1993).} These back-translated English-language materials formed the basis of data collection for the New York site. Pilot testing of these materials occurred through the
volunteer assistance of upper-level undergraduate students at both sites.

**Social desirability.** Possible cultural variation in response set when comparing US and Japanese participants (Gordon & Kikuchi, 1970; Horler & Yamazaki, 1986) led to my use of the Marlowe-Crowne Social Desirability Scale (MCSDS) (13-item shortform; Reynolds, 1982). A well-validated and frequently employed instrument, I utilized the MCSDS to control for potential response set among participants at both sites. Participants responded “true” or “false” to items broadly assessing the extent to which participants are concerned with social approval (e.g., “I’m always willing to admit when I make a mistake”). A total score is derived from summing the number of items participants select that reflect socially desirable responses. While reliability of this scale has been critiqued for its generalizability across populations, genders and psychological development, it remains the most commonly employed measure of social desirability bias (see Beretvas, Meyers, & Leite, 2002). As I determined that the only available Japanese-language translation of the MCSDS (Gordon & Kikuchi, 1970) contained dated language, I worked with Japanese colleagues to re-translate the MCSDS shortform. Cronbach values for inter-item reliability using this new translation were similar for the US ($\alpha = .66$) and Japanese ($\alpha = .64$) samples, with both evidencing acceptability (George & Mallery, 2003; Kline, 2000).

**Priming of sexual orientation discourse.** I provided participants with a printed handout ostensibly acquainting participants with key concepts relevant to the research task. This stimulus was disguised as “key concepts” for disambiguating, in conversational language, sexual orientation from gender identity as well as the constructs “self-concept,” “identity” and

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96 George and Mallery (2003) provide the following general guidelines for interpreting Cronbach alpha values: $>.9 =$ Excellent; $>.8 =$ Good; $>.7 =$ Acceptable; $>.6 =$ Questionable; $>.5 =$ Poor; and $<.5 =$ Unacceptable.
“sexuality” (Figures 2 and 3). Discourses of sexuality as comprised in part by components of *sexual desire* and *romantic love* is primed through description in the handout of sexuality having both “romantic (emotional)… as well as sexual (physical)” components. Self-concept was visually represented as a large circle, while identities were represented as smaller circles enclosed by the larger “self-concept” circle. Relative importance of identities was visually depicted by circle size, where larger circles represented more important or central identities; relationships between identities were visually depicted as overlapping circles.

This “key concepts” explanation sheet was followed by an example diagramming exercise. The example exercise included a brief vignette structured as a series of short diary entries, attributed to a fictional college student named “Juan” (“Shigeru” in the Japanese version). This vignette was followed by a sample Euler diagram exercise featuring pre-drawn circular contours representing each of five identities associated with the Juan/Shigeru character (Figures 4 and 5). This example handout served not only as an example of the subsequent impression formation task and Euler diagramming instrument but also as a distraction task after the initial priming.

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97 『ロマンチックな（感情的な）気持ちと、性的な（身体的な）気持ち』
Definitions

Self-concept, identity, and sexuality

**Self-concept:** What makes you unique from, or the same as, other people? When you think of yourself, you might compare yourself to other people, or even to the kind of person you used to be—or wish you could be. Yet even though you might change in some ways over time, or even in different situations, you still think of yourself as being the same person overall. And this overall sense of yourself is your **self-concept**.

**Identity:** You might guess that self-concept isn’t a simple thing though, right? Self-concept indeed is pretty complex and has many aspects, called **identities**. All your identities overlap with each other to form your self-concept.

But those identities can change in different situations or over time. That is, identities come and go—when you entered City College of New York, you gained a new identity as a college student. You stopped identifying as a junior high school student many years ago. You might identify as a more fashionable person now than you were in junior high school also.

**Sexuality:** Sexuality is a term that describes many aspects of our attraction to other people. Sexuality describes both our romantic (emotional) attraction, as well as our sexual (physical) attraction.

Let’s consider men for example. Many men are attracted to women, and we often call such men “heterosexual.” And some men are attracted to men, and we often call such men “homosexual” or “gay.” But attraction to others is different than one’s own feeling of being a man or woman. Some men like to dress as women, such as “drag queens” in many television programs, but that does not always mean they are homosexual or gay.

* Please keep these definitions in mind as you read the example on the next page.

Figure 2

Initial priming material – key concepts handout (English)
定義

※ 自己概念、アイデンティティ、およびセクシュアリティ（性的傾向）について

自己概念：あなたは他の人と、どんなところが違っていて、どんなところが同じだと思いますか？あなたが自分自身について考えてみると、他の人たちや過去の自分の姿、あるいは自分がこうありたいと思う姿を比べてみることでしょう。時間とともに、あるいは状況によって、変わる部分もあるかもしれませんが、全体的な一貫した人物像を自分自身について思い浮かべることができるでしょう。この、全体的な自己についての感じを、「自己概念」と呼びます。

アイデンティティ：もちろん、あなたの自己概念は単純なものではないということは、これまでの経験から実感しているでしょう。自己概念は、多くの側面を持っており、それらの一つ一つの側面は「アイデンティティ」と呼ばれます。あなたのアイデンティティはすべて統合され、あなたの自己概念となります。

しかし、アイデンティティの中には、他の人が考えるよりも、あなたにとって重要なものがあるでしょう。あるいは、あなたがどんな人物かということをより代表しているものであるでしょう。そして、いくつかのアイデンティティは、互いに重なり合っているかもしれません。また、あるアイデンティティが他のアイデンティティと関連し合っているかもしれません。

セクシュアリティ（性的傾向）：セクシュアリティは、他者に惹かれることについての多くの側面を表す言葉です。セクシュアリティは、他者へのロマンチックな（感情的な）気持ちと、性的な（身体的な）気持ちの両方を表しています。

例として、男性について考えてみましょう。多くの男性は、他者に惹かれますが（異性愛者）、一部の男性は他の男性に惹かれます（同性愛者、またはゲイ）。しかし、他者に惹かれることと、あなたの身分が男性であるという気持ちとは異なります。多くのテレビ番組で登場の「オカマ」のように、女装する男性もあります。しかし、その人たちは必ずしも、ホモセクシュアリティであるという訳ではありません。

※ このような違いについて注意しながら、下記の質問に答えてください。

Figure 3

Initial priming material – key concepts handout (Japanese)
Example: Let’s look at a sample of Juan’s diary:

April 22: I just finished my homework for my class, so I’m going to meet my college friends in the park to try out some new skateboarding techniques I’ve been practicing. Ah, I can’t wait to show them that new move I figured out with my little sister the other day! She thought it was pretty cool and wants to learn how to do it too. I keep telling her, if she wants to improve her own skill she needs to practice more!

April 29: I’m so glad to be out of class for break! Maybe my college friends and I can take that hiking trip we’ve been talking about for so many months. It’ll be nice to enjoy being outdoors in the fresh air. Which reminds me, this might finally be the time for me to quit smoking so I can really enjoy that fresh air!

* Visualizing Juan’s self-concept and identities

There are many ways to interpret Juan’s life—there is no one correct way! Let’s try to visualize the relationship of Juan’s identities to his self-concept (the large circle below). We can also use circles to represent each of Juan’s identities (listed below).

- Let’s represent the importance of each identity in Juan’s self-concept by the size of the identity circle. The larger the circle, the more important that identity is in Juan’s self-concept.

- Also, if some identities are somehow related to each other, we can represent that relationship by using overlapping identity circles. Finally, if an identity is not related to others, that identity circle should be drawn without any overlap with other identities.

Juan’s identities:
- College student
- Fun-loving person
- Older brother
- Strict person
- Smoker

**Figure 4**

Initial priming material – sample diagramming exercise (English)
例：次の茂の日記を例に見てみましょう。

4月22日：僕は授業の宿題を结束したら、近くの堂々としたスケボーの新しいテクニックを試してみよう。そこで大学の友達と会うつもりだ。ああ、先日妹と生み出した新しいテクニックを彼らに見せられるのを待ちきれなかった！妹は、そのテクニックはすごくかっこいいと思っていて、それをマスターしたがっている。もし妹がスケボーがうまくなりたいなら、もっと練習するようにと言い続けているところだ！

4月29日：休みに入って授業から解放されて嬉しい！多分、大学の友達と一緒に、何かでも話をしてきたハイキング旅行に行くだろう。新鮮な空気の中でアウトドアを楽しむのはすごくよさそうだ。そう、ついに僕がタバコをやめる時が来たんだ。そうすれば、新鮮な空気を存分に楽しめるだろう！

※ 茂の自己概念とアイデンティティを絵に表してみましょう。

茂の自己概念の中でそれぞれのアイデンティティがどれだけ重要かを、円の大きさで表してみましょう。円が大きいほど、そのアイデンティティが茂の自己概念にとってより重要であることを示しています。

また、もうひとつのアイデンティティがお互いに関連していれば、アイデンティティの円を重ねて表すことができます。つまり、アイデンティティの円が重なり合っている場合、相互に関連していることを表しています。現在のアイデンティティが他のアイデンティティと関連していない場合、そのアイデンティティは他のアイデンティティと重ねずに描くことになります。

**Figure 5**

Initial priming material – sample diagramming exercise (Japanese)
**Impression formation task.** Following priming and the distraction task, participants were then randomly assigned to read one of two vignettes, structured as a series of diary entries, centering on a male college student and his attraction for another student. Depending on assignments, participants read either about this college student’s attraction to a female or another male student. Participants indicated their impressions of this fictional college student by applying six provided identity labels to a Euler diagram they generated by hand. I describe each of these elements of the impression formation task in greater detail next.

**Vignettes.** A separate handout begins with one of two versions of a similarly structured vignette detailing the story of a fictional male college student, “Tom” (“Taro” in the Japanese version). Otherwise identical, the vignettes differ only in terms of the gender of another student he is attracted to either as female (other-sex condition) or male (same-sex condition) (Tables 4 and 5). In close consultation with Japanese colleagues, I designed this vignette based on interpersonal conflict to provide participants with a realistic, socially dynamic if fictional situation into which they might mobilize cultural discourses in making meaning of Tom/Taro’s navigation of that conflict. The conceit of framing this impression formation task as an assessment of diary entries containing content associated with a fictional character’s sexually relevant experiences stems from relatability of diary keeping in both cultural contexts (e.g., Ishimaru, 2008).
### Table 4

**Experimental vignettes with manipulated gendered names and pronouns (English)**

<table>
<thead>
<tr>
<th>Male-Female Attraction Vignette</th>
<th>Male-Male Attraction Vignette</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tom’s story:</td>
<td>Tom’s story:</td>
</tr>
<tr>
<td><strong>April 22</strong>: I’m really a mess right now. <strong>I just can’t stop thinking about Mary.</strong> It’s gotten so bad that every psychology class <strong>I just stare at her</strong> sitting in front of me, and my mind wanders away from the professor’s lecture. <strong>I just sit there imagining how wonderful it would be if Mary and I were dating.</strong> <strong>She’s just so hot!</strong> I mean, it’s frustrating. And it’s so unlike me to lose my focus like this! I’m really worried that my class grade is getting worse. I’ve always been a good student, but I’m worried about continuing to be one for the first time. And it gets worse!</td>
<td><strong>April 22</strong>: I’m really a mess right now. <strong>I just can’t stop thinking about Mark.</strong> It’s gotten so bad that every psychology class <strong>I just stare at him</strong> sitting in front of me, and my mind wanders away from the professor’s lecture. <strong>I just sit there imagining how wonderful it would be if Mark and I were dating.</strong> <strong>He’s just so hot!</strong> I mean, it’s frustrating. And it’s so unlike me to lose my focus like this! I’m really worried that my class grade is getting worse. I’ve always been a good student, but I’m worried about continuing to be one for the first time. And it gets worse!</td>
</tr>
<tr>
<td><strong>May 9</strong>: Yesterday at baseball practice I know my teammates noticed how unfocused I’ve been lately, especially after I missed three balls. I could see it in their faces. Even my best friend Ken, who’s always understanding, was getting pretty upset. So now <strong>I don’t know if I should even tell him about Mary</strong> because that might just make things worse. I mean, what would he think? Would knowing why I’ve been unfocused just make him angrier?</td>
<td><strong>May 9</strong>: Yesterday at baseball practice I know my teammates noticed how unfocused I’ve been lately, especially after I missed three balls. I could see it in their faces. Even my best friend Ken, who’s always understanding, was getting pretty upset. So now <strong>I don’t know if I should even tell him about Mark</strong> because that might just make things worse. I mean, what would he think? Would knowing why I’ve been unfocused just make him angrier?</td>
</tr>
<tr>
<td><strong>May 17</strong>: I try to calm myself down by reminding myself that getting through school is what’s important right now. And of course, that’s what my parents keep saying too whenever I talk to them. Ah, speaking of my parents, <strong>how would they react if Mary and I really started dating? I mean, how could I possibly bring her up to my parents?</strong> The last thing I want to do is upset them.</td>
<td><strong>May 17</strong>: I try to calm myself down by reminding myself that getting through school is what’s important right now. And of course, that’s what my parents keep saying too whenever I talk to them. Ah, speaking of my parents, <strong>how would they react if Mark and I really started dating? I mean, how could I possibly bring him up to my parents?</strong> The last thing I want to do is upset them.</td>
</tr>
<tr>
<td>Male-Female Attraction Vignette</td>
<td>Male-Male Attraction Vignette</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>太郎の日記から：</td>
<td>太郎の日記から：</td>
</tr>
<tr>
<td>4月22日：僕は、どうすべきか本当に悩んでいる。祐介のことを考えずにいられないのだ。心理学の授業に行くいつも、彼女が僕の前に座っていて、僕の気持ちは先生の授業から離れてしまうのだ。彼女は本当にセクシーなのだ！そして、もし彼女とデートできたならどんなに素晴らしいかを想像して座っているだけなのだ・・・そしてそのことにすごく悩んでいる。こんなに集中力を欠くなんて、僕らしくない！僕はこの授業の成績がどんどん悪くなっていくことをとても心配している。いつも優等生だったのに、今そうあり続けられるかを初めて心配しているのだ。そして事態はもっと悪くなっている！</td>
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</tr>
<tr>
<td>5月9日：昨日の野球の練習で、3つのボールを取り損ねてしまい、チームメイトが僕が最近どれだけ集中していないかに気づいたことが分かった。彼らの表情にそれは現れていたのだ。僕の親友の大輔さえ、いつもは思いやりがあらゆるのに、とても怒っていたのだ。だから今、彼に由美子のことを言うべきかどうか分からない、なぜならそれが事態をもっと悪くするかもしれないからだ。彼はどう思うだろうか？なぜ僕が集中力に欠けているかを知ったら、彼はもっと怒るだろうか？</td>
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<td>5月17日：僕は、学校でうまくやっていることが今大事であることを思い出して、自分自身を落ち着かせるようしている。それはもちろん、両親と話すいつもの言われることだ。ああ、両親のことと言えば！もし由美子と僕が本当にデートすることになったら、どんな反応をされるのだろう？どのように彼女のこと、両親に話せばよいのだろう？両親を怒らせることは、僕にとっては一番嫌なことなのだ。</td>
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</tr>
</tbody>
</table>
**Instructions:** As in the example on the previous page, use a pencil to draw a circle for each of Tom's six identities listed below inside the large circle (self-concept). As you draw his identity circles, consider how important each identity is (size of circle) to him, and what the relationships are between his identities (overlap of circles). Label each circle you draw.

**Tom’s identities:**

- Good student
- Baseball team member
- Worried
- Sexual
- Romantic
- Good son

*Figure 6*

Impression formation task – Euler diagramming exercise (English)
Euler diagram outcome instrument. Participants were then instructed to draw a Euler diagram, comprised of six closed circular contours, each representing participants’ impressions of one of six “identities” associated with the fictional Tom/Taro from the vignette. Participants were also instructed to consider the relative importance (operationalized as circle size) of and relationships between (operationalized as overlapping circles) each of the six identities. Finally, participants were instructed to construct a Euler diagram representing the relationships between each of the six identities within a larger, empty circle labeled “Tom’s self-concept” or Taro no jikogainen (“Taro’s self-concept”) provided on the page (Figures 6 and 7). The six identities
associated with the fictional male author were listed on the same page, representing both social roles (good student, baseball team member, son in the family) and individual personality traits (worried, sexual, romantic). Apart from inclusion of the sexuality components of sexual desire and romantic love (Diamond, 2003a; Regan & Berscheid, 1995), I selected these traits and roles through consultation with Japanese colleagues after determining their cultural relevance.

As seen in Figure 8, participants’ hand-drawn diagrams sometimes contained irregular circular contours. Whereas perfect circles require measurement of a single diameter (i.e., a bisecting chord through the circle center), circular contours more generally may consist of any number of distinct bisecting diameters of differing length. For purposes of determining average chord length, measurement of the maximum circumscribing and maximum inscribing diameters is sufficient to impute an equivalent perfect circle for direct, two-dimensional comparison. This method of average chord-length measurement is appropriate for circular contours that are not strongly concave or irregular (Merkus, 2009). See Appendix C for a brief discussion of unusual diagrams that were challenging or, in four cases, impossible to code.

My goal in operationally defining these Euler diagrams was to measure the sexuality components sexual desire and romantic love in several ways to enhance the reliability of pattern detection. In this study, I use four distinct sets of outcomes: prominence, synthesis, permeation,
and association. These four sets of outcomes are of course not exhaustive; they were selected primarily for their relevance to the provided instructions to participants emphasizing relative circle size and overlap. Critically, each of these outcomes depends only on relative size or overlap patterns within a single Euler diagram. That is, comparisons across participants relied not on actual circle size measurements, as drawing style differed from one participant to the next, with some evidencing a preference for larger contours while others utilized only a small area of the page for their drawings. Standardization of these outcomes was consequently consisted of ratios of a focal subset (numerator) and normalizing subset (denominator); these ratios reflected proportion, count and nominal values, as detailed in the next subsections.

![Sample participant-generated Euler diagrams (English and Japanese)](image)

**Figure 8**

Sample participant-generated Euler diagrams (English and Japanese)

**Prominence.** I defined a prominence outcome as perceived importance of sexuality

---

100 I also considered other potential outcome measures, including: distance of drawn circular contours to the pre-printed “self-concept” bounding circle and distance between non-overlapping circular contour borders. However, problems of interpretability forced me to abandon these alternative operationalizations.
among other identities, operationalized as the extent to which participants drew the sexual desire and/or romantic love identity circle(s) large relative to the other identity circles. Independent raters first measured the average chord length (i.e., average of longest and shortest bisecting diameters) of each of the six hand-drawn circular contours in each respondent-produced Euler diagram by means of inscribing and circumscribing circles (Merkus, 2009). Chord measurements on a random selection of 20% of the diagrams from each site evidenced an extremely high level of inter-rater reliability; ICC(2,1) = .99. Operationally, each prominence outcome is a proportion defined by the ratio of the sexual and/or romantic identity circle area to the total area of all drawn identity circles. Mathematically, the prominence outcome can be expressed as:

$$Promincence = \frac{a_{SEX}}{a_{SEX} + a_{ROM} + a_{WOR} + a_{STU} + a_{BAS} + a_{SON}}$$

where $a$ = area of a circular contour (computed from average radius of circumscribing and inscribing circles); subscripts indicate individual identity circles (e.g., SEX = sexual desire) (Figure 9).

---

101 I used the program PixelStick™ v. 2.5 (Leigland, 2012), a software tool for measuring distances on a computer screen in pixel units. As an alternative, I also computed the area by counting the number of pixels inside the circular contour using Adobe Photoshop ® CC (for another example, see Yang, Albregtsen, Lønnestad, & Grøttum, 1994).

102 The intraclass correlation coefficient (ICC) is an index of inter-rater reliability when using two or more independent judges on a subset of data (Cohen, Cohen, West, & Aiken, 2003). Shrout and Fleiss (1979) define a Case 2 (two-way (random) single measures) ICC model as one where each judge rates each target. This coefficient also takes into account possible systemic variation by rater; that is, raters are considered random effects.
**Synthesis.** I defined a synthesis outcome as perceived embeddedness of sexuality within other identities, operationally defined as the extent to which participants drew the “sexual desire” or “romantic love” identity circle(s) as overlapping with, and thus (in)distinguishable from, the remaining identity circles. This overlap was operationalized as a proportion of circle area overlap (measured in pixel units) to total identity circle area; Each Euler curve divides the plane into two regions or "zones": the interior, which symbolically represents the elements of the set, and the exterior, which represents all elements that are not members of the set.\textsuperscript{103} After computing all intersecting regions shared by the sexual desire / romantic love circle and all other intersecting circles in pixel units, I computed a ratio of the total intersecting region to the total area of the sexual desire / romantic love circle.\textsuperscript{104} Mathematically, using set builder notation, this can be expressed as:

\[
\text{Synthesis} = \frac{(\alpha_{\text{SEX}} \cap \alpha_{\text{ROM}}) \cup (\alpha_{\text{SEX}} \cap \alpha_{\text{WOR}}) \cup (\alpha_{\text{SEX}} \cap \alpha_{\text{STU}}) \cup (\alpha_{\text{SEX}} \cap \alpha_{\text{BAS}}) \cup (\alpha_{\text{SEX}} \cap \alpha_{\text{SON}})}{\alpha_{\text{SEX}}}
\]

where \(\alpha\) again equals area of a circular contour in pixel units (computed from average radius of circumscribing and inscribing circles); subscripts again indicate individual identity circles (e.g.,

\textsuperscript{103} Curves whose interior zones do not intersect represent disjoint sets. Two curves whose interior zones intersect represent sets that have common elements; the zone inside both curves represents the set of elements common to both sets (the intersection of the sets).

\textsuperscript{104} In Photoshop, by setting the tolerance threshold to 0-10 to maximize color contrast and using different color values for overlap and non-overlap areas, I was able to compute intersecting regions of the sexual desire / romantic love circles. I first manually colored the non-intersecting region with one solid color (blue); I then colored all intersecting regions in a separate color (red). In the Histogram panel, I used the Magic Wand tool to click each colored region for automatic generation of selected area pixel counts. I also compared these Photoshop measurements with a random sample using PixelStick\textsuperscript{TM} to independently establish the reliability of these calculations.
SEX = sexual desire). Region of intersection between any two identity circles is denoted by the set theoretical symbol for intersection, \( \cap \); regions of overlap shared between multiple identity circles is denoted by the symbol for union, \( \cup \) (Figure 10).

**Permeation.** I defined a permeation outcome as an omnibus of interconnectivity between sexual desire / romantic love and the other four identity circles. This interconnectivity between sexual desire / romantic love and other identities was operationalized as a simple count of identity circles drawn intersecting with the sexual desire and/or romantic love identity circle(s) (Figure 11).

**Association.** I defined an association outcome as perceived relevance of sexual desire / romantic love to each remaining identity. This association was operationalized as a dichotomous measure of intersection between the sexual desire or romantic love identity circles with each other as well as with each of the remaining identity circles (Figure 11).

---

105 As I was unable to secure independent raters for these synthesis outcomes, I also randomly selected 30 diagrams from both the Japan and US samples and recoded them myself using Adobe Photoshop ® CC to test the reliability of the synthesis outcome measurements. Specifically, I compared raw area pixel counts to area calculations based on my previous PixelStick™ average diameter measurements. ICC again revealed almost perfect agreement between these two independent forms of measurement; ICC(2,1) > .99.
Figure 9

Bisecting diameter measurements of Euler diagrams using PixelStick™
Figure 10

Circular overlap region measurements of Euler diagrams using Adobe Photoshop ® CC
Prior to data collection at either site, Japanese colleagues and first I pilot tested all procedures of the experimental portion of this method—priming, impression formation task and Euler diagramming exercise—on a class of upper-division psychology students at the same Japanese university where I recruited Study 1 participants. Based on our assessment of this pilot data collection, we revised vignette wording and identity labels to be more accessible.

Participants at the U.S. site were recruited at Hunter College in New York City, with CUNY-UI IRB approval, from the undergraduate subject pool management systems for the Department of Psychology and Department of Education. Participant recruitment and data collection at the Japanese site was conducted in cooperation with my colleague during regularly scheduled large lecture class meetings. All consent and data collection procedures occurred on campus at both
sites. Informed consent procedures were observed at both sites, and all prospective participants were asked to sign a written consent form prior to data collection.

The priming stimulus—a handout of key concepts and example diagramming exercise—was distributed following informed consent procedures. I (or my Japanese colleague at the Tokyo site) explained the practice impression formation and Euler diagram exercise, checking for participants’ understanding of the task through follow-up content questions before proceeding. Participants at each site were then randomly assigned to read a fictional vignette of a college student’s diary entries that feature attraction to either a male or female target. Participants in both conditions were then instructed to draw an Euler diagram using circles representing six identity labels provided on the vignette handout. These diagrams were explained to participants as representing their first impressions of the fictional character from the vignette. Following completion of the diagramming exercise, participants completed a questionnaire battery containing a measure of social desirability and demographic questions. Each participant was debriefed following data collection; participants at the US site received course research participation credit, while participants at the Japanese site received course attendance and participation credit.

**Study 2: Interpretation of Inductive Potential Belief Patterns**

As identification of quantitative patterns from Study 1 is not equivalent to explanation of those patterns, my ability to interpret these group-level patterns required an additional empirical step. Applying the critical amalgam methodology developed in Chapter 3 of this dissertation, I therefore approached these generated Euler diagrams not only as quantifiable data
but also as discursive products reflecting Study 1 participants’ mobilization of culturally available discourses of sexual orientation. In an effort to lend credibility to my subsequent discursive interpretations of these quantitative patterns, I drew upon the lay expertise and cultural competence of a second sample of participants in both New York City and Tokyo.

**Design**

Study 2 consisted of an initial focus group discussion, followed by individual responses to a survey instrument featuring open-ended items assessing participants’ peer evaluations of the Euler diagrams produced during Study 1. These participants—representing peers of the original Study 1 participants—constituted “interpretive communities” (Fish, 1980) through separate focus group analysis of a selection of 30 Euler diagrams produced by Study 1 participants. The data in this second study were more complex and spanned two cultural contexts, each comprising distinct universes of discourse; I therefore opted to trace the interweaving of sexual orientation discourses in participants’ subsequent individual responses to open-ended survey prompts using a method of thematic analysis (Braun & Clark, 2006).

**Participants**

Using a purposive sampling strategy, my Japanese colleague and I targeted students who already completed advanced undergraduate coursework in psychology, as we determined they were likely to be more fluent in communicating the content of and insights into cultural discourses of sexuality. As such, rather than use introductory courses or the Hunter College subject pools at the US site, I instead targeted students enrolled in advanced research methods courses in the US as well as advanced psychology students at Saitama University in Japan.
Recruitment of both samples was accomplished through use of flyers, in-class announcements and word-of-mouth referrals.

The final US sample for Study 2 consisted of upper-division undergraduate students recruited from the Department of Psychology at Hunter College (CUNY), New York, United States (N_US = 20, women = 17; \( M_{\text{age}} = 21.80, \text{SD} = 1.64, \text{range} = 19-25 \) years). In terms of ethnicity, participants identified as: Black (n = 3, 15.0%); Latino/Hispanic (n = 6, 30.0%); White (n = 8, 40.0%); Asian/Pacific Islander (n = 1, 5.0%); Middle Eastern (n = 1, 5.0%); and Guyanese (n = 1; 5.0%). Most US participants were born in the US, although 5 (25.0%) were born outside the US; all participants in the final sample were raised in the US, although 3 (15.0 %) indicated being raised in part abroad. Nearly all participants (n = 19) resided in New York at the time of data collection (95.0%), with 1 residing in another US state (5.0%). Nearly all participants indicated previous contact with a gay man (n = 19, 95.0%); of these, 6 (31.6%) indicated a close relationship while 9 (47.4%) indicated a “somewhat close” relationship and 4 (21.0%) indicated they were “not very close” to the gay man (or men) they knew. All US participants reported fluency in English (See Table 6 for full demographics.

After analyzing an initial ten responses from the Japanese site, my Japanese colleague and I mutually determined that an additional focus group was necessary to achieve data saturation, which I defined as a point at which additional recruitment did not lead to the interpretation of any new discursive patterns (Marshall, 1996). The final Japanese sample consisted of upper-level undergraduate students recruited from the Faculty of Education at Saitama University, Japan (N_JP = 21, women = 11; \( M_{\text{age}} = 21.10, \text{SD} = 1.22, \text{range} = 20-24 \) years). All participants recruited in Japan reported Japanese ethnicity and nationality as well as fluency in Japanese language. Participants hailed from a variety of regions throughout Japan,
although a majority were raised in the greater Tokyo area, also called the Kantō region (including Tokyo, Saitama, Chiba, Kanagawa, Gunma, Ibaraki, and Tochigi prefectures; n = 14, 66.7%). Nearly all participants (n = 20, 95.2%) resided in the Kantō region at the time of data collection. Unlike their US peers or Japanese peers from Study 1, just over half of the Japanese participants in Study 2 reported prior contact with a gay man (n = 11; 52.4%). Of the participants who did report such contact, one (11.1%) reported being very close to that person, while 6 (66.7%) and 2 (22.2%) reported being somewhat close or not close at all, respectively. Full demographic information on the Japanese sample is summarized in Table 7.
Table 6

*Participant Demographics for Phase 2 – US Sample*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Total (N = 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
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<tr>
<td>Gender</td>
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<tr>
<td>Female</td>
<td>17</td>
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<td>Race / Ethnicity</td>
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<tr>
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<td>White</td>
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<td>Asian/Pacific Islander</td>
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<td>Middle Eastern</td>
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<tr>
<td>Guyanese</td>
<td>1</td>
</tr>
<tr>
<td>Birthplace</td>
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<tr>
<td>United States</td>
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<tr>
<td>Central/South America</td>
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<tr>
<td>East/West Europe</td>
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<tr>
<td>Raised</td>
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<td>New York State</td>
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<tr>
<td>Other US state</td>
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</tr>
<tr>
<td>US and abroad</td>
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<tr>
<td>Current residence</td>
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<tr>
<td>New York State</td>
<td>19</td>
</tr>
<tr>
<td>Other US state</td>
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<tr>
<td>Prior acquaintance with a gay man?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>19</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>If yes, how close?</td>
<td></td>
</tr>
<tr>
<td>Very close</td>
<td>6</td>
</tr>
<tr>
<td>Somewhat close</td>
<td>9</td>
</tr>
<tr>
<td>Not very close</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 7

Participant Demographics for Phase 2 – Japan Sample

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Total (N = 21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10 (47.6)</td>
</tr>
<tr>
<td>Female</td>
<td>11 (52.4)</td>
</tr>
<tr>
<td>Birthplace</td>
<td></td>
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<td>21 (100)</td>
</tr>
<tr>
<td>Raised</td>
<td></td>
</tr>
<tr>
<td>関東地方 (Kantō region)</td>
<td>14 (66.7)</td>
</tr>
<tr>
<td>中部地方 (Chūbu region)</td>
<td>4 (19.0)</td>
</tr>
<tr>
<td>その他 (other region)</td>
<td>2 (9.5)</td>
</tr>
<tr>
<td>日本・米国 (Japan &amp; US)</td>
<td>1 (4.8)</td>
</tr>
<tr>
<td>Current residence</td>
<td></td>
</tr>
<tr>
<td>埼玉県 (Saitama Prefecture)</td>
<td>16 (76.2)</td>
</tr>
<tr>
<td>東京都 (Tokyo Prefecture)</td>
<td>4 (19.0)</td>
</tr>
<tr>
<td>その他 (other prefecture)</td>
<td>1 (4.8)</td>
</tr>
<tr>
<td>Prior acquaintance with a gay man?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
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<td></td>
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<tr>
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<td>1 (11.1)</td>
</tr>
<tr>
<td>Somewhat close</td>
<td>6 (66.7)</td>
</tr>
<tr>
<td>Not very close</td>
<td>2 (22.2)</td>
</tr>
</tbody>
</table>

Materials

Euler diagrams from Study 1. A subset of 30 de-identified Euler diagrams produced by Study 1 participants from each site constituted stimulus materials for focus group discussion. To avoid confirmation bias in participants’ interpretations, I randomly selected this subset of diagrams, although I had to replace two diagrams of dubious legibility to better facilitate focus group discussion at the Japanese site.
Focus group discussion protocol (English / Japanese). In consultation with Japanese colleagues, I developed a semi-structured focus group discussion protocol to guide conversations over the subset of Euler diagrams produced from Study 1. Prompts included questions such as, “What might these maps mean? Do you see any patterns?” “What do you notice in these maps?” and “Think about any patterns you see and how you would explain their meanings.” Importantly, these focus group discussions occurred prior to my quantitative analyses of the Euler diagrams so as to reduce any potential confirmation bias. I also withheld my Study 1 predictions concerning patterns of sexual desire and romantic love with focus group participants, only divulging the existence of the experimental manipulation as a way to prompt their own reflection on and discussion of what such a manipulation might reveal in their peers’ motives in producing the diagrams.

Pre/post individual response survey. I developed a questionnaire using Google Forms consisting of 13 items allowing for open-ended responses from participants. Items were divided into two sections: an initial battery of 12 questions prior to focus group activities; and one question following the focus group activity. Pre-focus group items asked for participants’ personal beliefs or understandings, as well as knowledge about the terms “same-sex sexuality,” “homosexuality,” and “gay and lesbian.” The follow-up question asked for participants’ to explain their assessment of the thought processes behind Study 1 participants’ generation of the Euler diagrams, inclusive of personal and cultural influences on that generation. After consultation with my Japanese colleague, I adopted this individual written approach in both

106 「これらのマップが何を意味しているのか、また他のパターンもあるのかを理解することです。これらのマップの中で、どんなことに気が付きましたか？どんなパターンが見出せたか、またその意味をどう説明できるのかについて考えてみてください。」
107 日本語訳：同性に魅力を感じること、同性愛（ホモセクシュアリティ）、ゲイ・レズビアン
cultural contexts out of cultural sensitivity regarding public disclosure of privately held knowledge and beliefs of taboo topics (e.g., sexuality). Disclosure of such knowledge verbally may be viewed as inappropriate in a Japanese cultural context (Kondo, 1990; Ó’Móchain, 2006; Saito, 2007) (Appendix D).

**Procedure**

Participants first completed the computer-based response survey on-site; questions probed participants’ current cultural knowledge of terms popularly associated with sexuality discourses, inclusive of sexual orientation and sexual identity. Participants then completed all procedures described in Study 1, after which I (with my Japanese colleague at the Japan site, both in person and remotely by Skype) debriefed participants on the nature and purpose of the experimental vignette manipulation. Participants were then presented with a selection of 30 minimally curated and de-identified Euler diagrams generated by participants from Study 1 (15 from each condition).

A brief focus group discussion followed, guided by a protocol of open-ended voice prompts designed to elicit discussion of culturally relevant discourses of sexuality (e.g., gay marriage, sexuality and religious beliefs in the U.S.; social obligation, popular media in Japan). I also took contemporaneous notes during these discussions for later generation of interpretive memos. While I informed the focus group participants in Study 2 about the experimental manipulation from the first study, they remained blind to my predictions concerning the sexual desire and romantic love identity circles. These focus group data from Study 2 therefore allowed for independent validation of the extent to which participants’ mobilization of culturally shared, stereotypical associations between sexual desire and romantic love and sexual orientation
categories could explain the empirical patterns I detected in Study 1.

Finally, participants were instructed to individually complete a follow-up, computer-based questionnaire containing a single open-ended prompt asking for participants’ interpretive analysis of response patterns associated with the sample identity diagrams, with a focus on social context and meanings. This final open-ended survey was intended to give participants who might otherwise have been reluctant to share individual views during the focus group session another opportunity to share their thoughts regarding the Euler diagrams.

I recognized the intersubjectivity between researcher and participants as a crucial determinant of participants’ interpretations of the diagrams—while I led focus group discussions at the US site, my Japanese co-investigator took the lead in participant interaction at the Japanese site (although I was present). Resulting open-ended survey responses must therefore be understood as co-constructed products between participants and investigator(s). Several questions prompted participants to share thoughts and beliefs about socially charged terms for participants, including same-sex attraction, homosexuality, and gay and lesbian (Davis, 2015).

**Translation and back-translation of individual responses.** All Japanese open-ended responses were translated and back-translated following the four-step “original – target – target check – original” process described by Brislin (1970). I recruited two experts on this content area; both translators were bilingual lesbians active in the Japanese LGBT community yet who were not acquainted with one another. One translator was responsible for the original Japanese-to-English translation, after which I served as target check in consultation with that translator. The second translator then independently back-translated to English. I also performed the last target-check step with the second translator over several intensive sessions. Each translator remained blind to the work of the other during this process, in line with best practices (Geisinger,
It is common in cross-cultural comparative studies for a single individual to perform all translation, and a single individual to perform the back-translation (Peng, Nisbett, & Wong, 1997). In an effort at a more rigorous translation with these focus group responses, however, I opted instead to follow the procedure advocated by Banville et al. (2000), based on a multi-step procedure first developed by Vallerand (1989), for back-translation. The first step involved translation and back-translation using two people to independently translate and two other people to independently back-translate. Specifically, I employed two professional bilingual translators, one to translate and one to back-translate. I served as the second, independent translator, while a Japanese undergraduate student served as second back-translator. The members of each pair then compared their translations and resolved discrepancies by discussion before proceeding to the next stage. The next step would normally involve an independent committee of people fluent in the source language comparing the original instrument with the back-translated version. Due to lack of resources, I instead met with the other three translators—by this point all privy to all versions of the focus group responses—to discuss and resolve remaining discrepancies.
CHAPTER 5: Study 1: Quantitative Analyses of Inductive Potential Beliefs

I have argued that inductive potential beliefs, while not directly measurable, should be inferable from the extent to which laypeople mobilize culturally shared discourses of sexual orientation categories in forming impressions of target others. To empirically test this critically reconstructed theory of psychological essentialism, I have opted to experimentally investigate the degree to which laypeople’s discursively constructed representations align with culturally salient stereotypes about those categories in the US and Japan. As discussed in the previous chapter, I have chosen to operationally define this alignment pattern in both cultural contexts as the extent to which participants’ hand-drawn Euler diagrams visually depict the centrality of two components of sexuality—sexual desire and romantic love—relative to other social roles and traits. I derived two predictions from prior theory that should be indicative of inductive potential beliefs: that sexual desire will be more centrally defining of the same-sex attracted male target relative to the other-sex attracted male target (H1); and that romantic love will be less centrally defining of the same-sex attracted male target relative to the other-sex attracted male target (H2). In addition to this experimental manipulation of sexual orientation as a means of testing for the presence of these two predicted patterns, I also sought to detect potential variation in these patterns associated with participants’ discursive positionality vis-à-vis cultural context and gender.

While single outcome measures may provide tentative support for both predictions, the exploratory nature of this investigation compels a more rigorous approach. My solution has been an approach of triangulation among multiple outcome measures for both components of sexuality to better establish the reliability and validity of any detected patterns. To the extent these
multiple outcomes converge on the patterns predicted in H1 and H2, I will be better positioned to claim empirical support for those predictions, and, by extension, confirm the presence of inductive potential beliefs. A Euler diagram as outcome measurement instrument is particularly efficient for this triangulation task, in that a wealth of outcome measures can be derived from a single diagram. In the current analyses I investigate the following four sets of outcomes, as described in Chapter 4:

- **Prominence**, or perceived importance of sexuality among other identities; operationally defined as a ratio of the area of the drawn *sexual desire* and/or *romantic love* identity circle(s) relative to the total area comprised by the six drawn identity circles

- **Synthesis**, or perceived embeddedness of sexuality within other identities; operationally defined as a ratio of the drawn area of the *sexual desire* or *romantic love* identity circle shared with any of the remaining identity circles to the total area of the *sexual desire* or *romantic love* identity circle

- **Permeation**, or the extent to which sexuality is perceived to be interconnected with other identities; operationally defined as a count of how many remaining identity circles intersect with the *sexual desire* and/or *romantic love* identity circle(s)

- **Association**, or perceived relevance of sexuality to other identities; operationally defined as binary overlap of the *sexual desire* or *romantic love* identity circle with each other as well as with each of the remaining identity circles

**Multiple Outcome Measures: Analytic Strategies**

The distributional characteristics of the multiple outcome measures derived from this Euler diagram-based instrument present unique challenges in terms of statistical model fitting
and assumptions testing. Psychologists conducting experimental studies often have recourse to normal-theory linear regression (predominantly ANOVA) to track mean responses between groups, based on the belief that general linear model regression is robust against violations of distributional assumptions. While this is true in many circumstances, this view is often mistaken and can lead to misinterpretations—or, perhaps more accurately, misrepresentations—of data and theory, particularly given bounded response sets, proportions or other data that do not follow a normal distribution (Smithson, Merkle, & Verkuilen, 2011; Smithson & Verkuilen, 2006). As these prominence, synthesis, permeation and association outcome measures consist of just such non-normally distributed data, I therefore turned to a variety of advanced regression techniques predicated instead on the generalized linear model (GLM), a flexible generalization of ordinary linear regression that allows for response variables that have error distribution models other than a normal distribution. Specifically, GLM allows a linear model to be related to the response variable by means of a mathematical link function capable of stabilizing the variance of each measurement. The type of distribution used to model the data dictates the type of link function applied (Agresti, 2013, 2015; Nelder & Wedderburn, 1972).\(^{109}\) As some of these GLM

\(^{109}\) More specifically, general linear models (e.g., linear regression) predict the expected value of a given unknown quantity (i.e., the response variable) as a linear combination of a set of observed values (predictors). This implies that a constant change in a predictor leads to a constant change in the response variable. While this assumption is appropriate when the response variable has a normal distribution, these assumptions are inappropriate for some types of non-normally distributed response variables. By contrast, generalized linear models (GLM) do not assume that the response itself must vary linearly. Instead, these latter models allow a function of the response variable (the link function) to vary linearly with the predicted values in a smooth and monotone fashion. That is, the link function provides the relationship between the linear predictor and the mean of the distribution function. A variety of link functions may be employed depending on the distributional properties of the response variable and the underlying theoretical model. For example, the logit link is bounded to the unit interval (with endpoints of 0 and 1) and is therefore appropriate for modeling proportions; count data modeled using a Poisson distribution alternatively makes use of a log link.
procedures remain relatively new, I had recourse to a variety of statistical packages to complete these regression analyses.110

This GLM approach comes with an important trade-off, however, in that I am constrained to analyzing these outcomes individually. While it would be ideal to look at interrelationships between these multiple outcome measures through their simultaneous inclusion within the same GLM model, several factors prevented such an approach. First, as these Euler-diagrammatic outcome data call for a variety of nonlinear distributions across both continuous and categorical scales of measurement, a single link function did not suffice. Even if it were possible to fit all data through a single link function, however, the necessary sample size for investigating a model containing all the outcomes in the current analyses would be prohibitively large and consequently impractical. Furthermore, the resulting regression model would be so onerously complex that interpretation would be rendered exceedingly subjective. I discuss these analytic limitations further in the Discussion (Chapter 7).

I next provide brief descriptions of and explanations for the analytic strategies I adopted for each of the prominence, synthesis, permeation and association sets of outcomes. All analytic approaches described below assume models in which the outcome is regressed onto the same three binary predictor variables: experimental condition, consisting of the other-sex attraction (OSA) condition or the same-sex attraction (SSA) condition; cultural context,

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110 I tested all prominence and synthesis models using R Studio v.1.1.456; I generated and tested predicted values with the Generalized Additive Models for Location, Scale and Shape (GAMLSS; family = BE and BEINF) package (Rigby & Stasinopoulos, 2005; Stasinopoulos & Rigby, 2007). I performed all permeation analyses using R’s built-in generalized linear model package (GLM; family = quasipoisson). I generated line graphs of all interactions using the GGPlot2 package in R (Wickham, 2009). I tested all association models using logistic regression analyses using IBM SPSS v. 24; I investigated all significant interactions using the PROCESS add-on SPSS macro to compute marginal means for each significant interaction (i.e., moderation) term (Hayes, 2016; see also Hayes & Matthes, 2009).
consisting of the US or Japan; and self-identified participant gender, consisting of woman or man. Instances of the term “participants” without further specification should be understood to refer to the entire sample, controlling for cultural context and participant gender.

**Analytic strategy: prominence outcomes.** Each prominence outcome is operationalized as a standardized proportion defined by the ratio of the sexual and/or romantic identity circle area to the total area of all six drawn identity circles. I opted to test each prominence outcome by fitting them to beta regression models. Main assumptions of the beta distribution are that the dependent variable may be regarded as continuous, interval-level while also bounded between two known endpoints. Proportions are particularly well-suited to the beta distribution, and by conceptual extension to fuzzy sets, as they are already standardized along the range of the response variable, i.e., the unit interval [0,1] excluding the endpoints (Ferrari & Cribari-Neto, 2004; Smithson & Verkuilen, 2006). These proportion-based data are consequently best fit by a beta distribution, a very flexible two-parameter family utilizing a logit link transformation in GLM. As there were no cases at the boundary values (0 or 1) for this set of outcomes, I subsequently fit the model using the standard beta (family = BE) distribution. It is important to note that the standard beta regression model can have two submodels (or parameters): 1) a regression submodel for the mean parameter, or location (μ), similar to a linear or a binary regression model; and 2) a regression submodel for the precision parameter, or dispersion (σ), similar to the inverse of a variance in a linear regression model. Given the exploratory nature of these analyses, and as I had no *a priori* theoretical predictions regarding

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111 In proportions the middle of the distribution will act like any normal distribution. However, as one approaches the boundary values of 0 or 1, the variance becomes unstable. As such, these data cannot be assumed to be normally distributed (i.e., constituting unbounded values along a presumably infinite number line).
dispersion or heteroscedasticity of these outcomes, I opted to enter all three binary predictor
variables in the mean (location) submodel (μ); I used a constant for the dispersion submodel (σ).

**Analytic strategy: synthesis outcomes.** Each *synthesis* outcome represents a
proportion of shared circle overlap area to total sexual desire / romantic love identity circle area
(see Figure 7, Chapter 4). I opted to fit these data to a beta distribution utilizing a logit link
transformation in GLM. As these synthesis data were proportions, they are already standardized
to make the range of the response variable the unit interval [0,1]. However, as these data
contained several boundary cases reflecting no overlap (exclusion) or total overlap (complete
inclusion), it was necessary to take these cases into account in the beta regression model. The
zero-one beta inflated distribution (family = BEINF) is most appropriate when the response
variable takes values in a known restricted range including the endpoints of the range. In contrast
to the standard beta regression model, the probability (or density) function of the zero-one beta
inflated distribution is defined by four parameters. As with the standard beta distribution, mean
(location) (μ) and precision (dispersion) (σ) are modeled; the two extra parameters, ν and τ,
additionally model the probabilities at boundary values of 0 and 1, respectively.

**Analytic strategy: permeation outcomes.** Given that each *permeation* outcome
represents count data, I opted for a Poisson regression approach. A Poisson regression model
assumes first that the outcome variable has a Poisson distribution—one that expresses the
probability of a given number of events occurring in a fixed interval—and that the logarithm of
its expected value can be modeled by a linear combination of unknown parameters. As a GLM
distribution, Poisson regression utilizes a link function (in this case a log transformation, unlike
the logit transformation used in beta regression models). In Poisson regression models
the distribution of counts should normally evidence equivalent distribution means and variances.
However, in practice data may be underdispersed—that is, having a variance smaller in value than the mean (for examples, see Ridout & Besbeas, 2004). Preliminary multinomial regression analyses suggested all three permeation outcomes indeed evidenced slight underdispersion, suggesting the need for an adjustment to improve model fit. I therefore turned to a quasi-Poisson regression model, an approach that can account for underdispersion by relaxing the assumption of mean-variance equality by requiring only that the variance be a linear function of the distribution mean (Wedderburn, 1974).

Analytic strategy: association outcomes. For this final set of outcomes, I opted to fit these association outcomes to logistic (logit) regression models. In the logistic model, the log-odds (the logarithm of the odds) for the value coded “1” is a linear combination of the predictors; the logit function converts the log-odds to a probability. While the logit model does not require the outcome and predictor variables to be related linearly, it requires that any continuous predictors be linearly related to the log odds; as all three predictors were binary, however, this latter requirement was not applicable to the current analyses (Cox, 1958). Like beta regression, logistic regression models utilize a logit link function in GLM.

Preliminary Analyses

Social desirability. Prior to analyses of the prominence, synthesis, permeation and association outcomes, I explored the potential presence of patterns in social desirability in participants’ responses to the Marlowe-Crowne Social Desirability Scale (MCSDS). Out of the full sample (N = 405), 15 participants indicated extreme scores (i.e., values of 0 or 13) (Japanese = 11; 3.7% of total sample); these cases were retained for all analyses as no associations were detected with other study variables. I next investigated missing MCSDS data for evidence of
significant associations with other study variables. A total of 8 participants represented 12 missing item responses (Japanese = 5; 2.0% of total sample). As this outcome evidenced less than 5% missing data in both the US and Japanese subsamples, and as subsequent analyses determined the pattern of missing data was completely at random (MCAR) (i.e., no associations between missing data and other values in the data set, missing or observed), I proceeded to impute values for these missing MCSDS responses. Rather than use simple mean or random imputation techniques, which fail to account for information about the overall distribution of scores, I opted to weight randomly generated values by the cumulative percentage of score frequencies (B. Krauss, personal communication, April 17, 2012). This imputation process entailed first randomly generating a proportion which was then compared to the cumulative percentage of MCSDS score frequencies. Proportions falling within the percentage range of a given score were subsequently assigned that score.

The distribution of MCSDS scores across the full dataset did not evidence any significant deviation from normality. A subsequent 2 (experimental condition) x 2 (cultural context) x 2 (participant gender) factorial ANOVA did however reveal a significant difference in social desirability such that US participants (M = 5.56, SD = 2.73) evidenced higher scores relative to their Japanese peers (M = 4.28, SD = 2.46); \( F(1, 397) = 21.34, p < .001, \eta^2_{\text{partial}} = .05 \). I did not detect any statistically significant differences for either experimental condition [\( F(1, 397) = 0.01, p = .92, \eta^2_{\text{partial}} = .00 \)] or participant gender [\( F(1, 397) = 2.83, p = .10, \eta^2_{\text{partial}} = .01 \)]. Additionally, no interactions evidenced statistically significant patterns. This significant difference by cultural context may be an artifact of large sample size, however, given the small effect size (reflecting a mean group difference of only 1 point on this 13-point scale). I consider this cultural difference further in the Discussion (Chapter 7).
Assumptions testing for GLM models. For all continuous outcomes (i.e., prominence, synthesis and permeation) absolute skew values were less than 3, while absolute kurtosis values were less than 10, indicating acceptable deviation from a normal distribution (DeCarlo, 1997; Kline, 2005).\textsuperscript{112} Bivariate correlations using Kendall’s tau-b ($\tau_b$) nonparametric tests between these continuous outcomes did not evidence any instances of multicollinearity (Table 8). Visual inspection of Q-Q plots at each step of model fit for prominence and synthesis outcomes (i.e., from intercept-only model to final fit model) revealed some deviation near the boundary values of 0 and 1, as would be expected of a beta distribution. However, I did not detect any problematic deviations from homoscedasticity or normality of residuals.\textsuperscript{113}

Prior to analysis of the synthesis outcomes I found it necessary to test whether the multiple 0 and 1 cases represented meaningful (i.e., predictive) values or were perhaps best evaluated as artifacts of the Euler diagram instrument (i.e., error variance). To explore this possibility, I fit a multinomial regression model (utilizing the generalized logit link in GLM) in which the 0 and 1 boundary cases were coded as separate categories; a third category represented all values comprising the middle distribution of the data (M. Smithson, personal communication, July 14, 2017). Inclusion of the “0” and “1” categories did not evidence significantly better model fit relative to the middle distribution-only model, strongly suggesting that the 0 and 1

\textsuperscript{112} While there are more conservative thresholds for skew and kurtosis described by these authors, I have opted to go with these more permissive thresholds as this is an exploratory method.

\textsuperscript{113} Linearity is likely to be slightly violated with beta regression models; such violation is acceptable, however, as even linear models are relatively robust against violations of assumptions of normality. It is also possible to use the Shapiro-Wilk test to quantitatively test the assumption of a normal distribution. However, the Q-Q plot, despite being a purely visual approach, is usually satisfactory for evaluating potential deviation from normality in beta models. Furthermore, the relatively large sample size ($N = 405$) means that the Shapiro-Wilk test may detect even trivial departures from the null hypothesis as statistically significant (see Gellman & Hill, 2007).
cases were most likely nuisance variables. Consequently, as with the prominence outcomes, I opted to include all predictors in the mean (location) (μ) submodel only; the zero-one beta inflated model thus mathematically controlled for precision (dispersion) (σ) as well as zero (ν) and one (τ) boundary cases by assigning them constant values.

For the permeation count data, I calculated expected counts and plotted them against observed counts; I subsequently found them to be generally equivalent. For all continuous outcomes I visually checked for cases of extremely high global influence by comparing residuals against an index (generally values greater than 2.5). When detected, I manually removed extreme residual cases for that outcome only and re-compared model fit using the reduced dataset both to the original full dataset as well as to nested models.

In the case of the binary association outcomes, I visually checked for cases of extremely high global influence by comparing residuals against an index of Cook’s D values (with values greater than 1.0 indicating extreme influence). As a second measure of influence, I also calculated leverage values using a threshold, classifying values of .04 or more as extreme values (using the formula: 3(number of predictors + 1)/n; Cohen et al., 2003). When detected, I manually removed extreme residual cases and compared re-specified model fit using the reduced dataset both to the original full dataset as well as to nested models.

---

114 A widely accepted principle is that standardized residual values should fall within +/- 2.0 in smaller samples, although values of +/- 3.0 are acceptable for larger data sets (Cohen et al., 2003).

115 Cases of high influence should not be confused with the concept of “outliers.” Whereas the latter typically refers to univariate outlier cases only, the former is a measure of influence—an error outlier on the regression line when testing the predictivity of predictors on the criterion (i.e., residual outliers) (Cohen et al., 2003; Cook, 1977).

116 Several different interpretations of Cook’s D are possible: 1) Any values below 1 are acceptable in small to medium data sets (Cook & Weisberg, 1982); values below 4/n are acceptable (Gordon, 2012); or values beyond the 95th or 99th percentile should be inspected (Hosmer, Lemeshow, & Sturdivant, 2013). Given the exploratory nature of this methodology, I opted to go with the more generous interpretation offered by Cook and Weisberg (1982).
dataset both to the original full dataset as well as to nested models. I removed between 1 to 4 extreme cases depending on the outcome; see each outcome for sample size analyzed.

**Model specification.** I dummy-coded the three predictors as follows for all regression models: experimental condition (OSA = 0, SSA = 1); cultural context (US = 0, Japan = 1); and participant gender (men = 0, women = 1).\(^\text{117}\) I further dummy-coded the binary *association* outcome variables as 0 (no overlap, complete exclusion) and 1 (overlap, either partial or complete inclusion). Model specification followed the same procedure for all four sets of outcomes: I began with an intercept-only model, systematically adding main effect and interaction terms; terms that failed to add to explained variance were subsequently dropped from the model.\(^\text{118}\) This process of model testing also entailed comparing each more complex model against each nested model in order of increasingly complexity (i.e., intercept-only followed by main effects followed by two-way interactions). I tested full models against nested models for goodness-of-fit using chi-square (\(\chi^2\)) tests (Kline, 2005; Schermelleh-Engel, Moosbrugger, & Müller, 2003).

\(^\text{117}\) While I recognize that it is convention when dummy coding binary gender (or sex) to assign the referent value 0 to women (or females) and comparison value 1 to men (or males), I opted not to do so in these analyses. This choice was driven not so much by interpretative ease as by the critical ideology informing this dissertation project: such coding historically privileges male participants in the interpretation of regression coefficients, and I felt it appropriate to avoid uncritical reproduction of such conventions. I consequently caution the reader to keep this in mind when interpreting all regression coefficients in the following analyses.

\(^\text{118}\) Regression models should be specified as best as possible with the fewest degrees of freedom (\(df\)). This means that one can drop terms that do not add to explained variance, as they are only eating up \(df\) in the model. This logic contrasts with the ANOVA logic of main effects remaining main effects whether interactions are significant or not. This is because it is not possible to directly compare betas or significance between different regression models, given that each regression equation treats the variables and their relationships differently. Once terms are added or removed, the relative contribution of each factor also changes (Cohen et al., 2003).
Table 8

Bivariate zero-order Kendall tau-b ($\tau_b$) correlations, means, ranges, and standard deviations for continuous outcomes (N = 405)

<table>
<thead>
<tr>
<th>Variable</th>
<th>DUALPROM</th>
<th>SEXPROM</th>
<th>ROMPROM</th>
<th>SEXSYNTH</th>
<th>ROMSYNTH</th>
<th>DUALPERM</th>
<th>SEXPERM</th>
<th>ROMPERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUALPROM</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>SEXPROM</td>
<td>.56***</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ROMPROM</td>
<td>.42***</td>
<td>-.02</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>SEXSYNTH</td>
<td>.11**</td>
<td>.11**</td>
<td>.04</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ROMSYNTH</td>
<td>.10**</td>
<td>.06</td>
<td>.10**</td>
<td>.32***</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>DUALPERM</td>
<td>.24***</td>
<td>.19***</td>
<td>.09*</td>
<td>.40***</td>
<td>.23***</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>SEXPERM</td>
<td>.23***</td>
<td>.40***</td>
<td>-.06</td>
<td>.53***</td>
<td>.21***</td>
<td>.62***</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ROMPERM</td>
<td>.18***</td>
<td>-.11**</td>
<td>.41***</td>
<td>.23***</td>
<td>.53***</td>
<td>.35***</td>
<td>.16***</td>
<td>—</td>
</tr>
<tr>
<td>Mean</td>
<td>.27</td>
<td>.15</td>
<td>.12</td>
<td>.26</td>
<td>.22</td>
<td>1.35</td>
<td>1.79</td>
<td>1.41</td>
</tr>
<tr>
<td>Range</td>
<td>.018 – .912</td>
<td>.004 – .650</td>
<td>.004 – .725</td>
<td>.00 – 1.00</td>
<td>.00 – 1.00</td>
<td>0 – 4</td>
<td>0 – 5</td>
<td>0 – 5</td>
</tr>
<tr>
<td>SD</td>
<td>.14</td>
<td>.11</td>
<td>.10</td>
<td>.21</td>
<td>.21</td>
<td>1.12</td>
<td>1.15</td>
<td>0.99</td>
</tr>
</tbody>
</table>

*Note. DUALPROM = prominence (romantic combined with sexual desire); SEXPROM = prominence (sexual desire); ROMPROM = prominence (romantic love); SEXSYNTH = synthesis (sexual desire); ROMSYNTH = synthesis (romantic love); DUALPERM = permeation (romantic love combined with sexual desire); SEXPERM = permeation (sexual desire); ROMPERM = permeation (romantic love); * p < .05, ** p < .01, *** p < .001*
Table 9

Summary of Coefficients, Standard Errors and Significance Tests: Ordinal and Continuous Regression Model Outcomes

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Prominence</th>
<th>Synthesis</th>
<th>Permeation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$ ($B_{back}$)</td>
<td>$SE$ ($SE_{back}$)</td>
<td>$p$</td>
</tr>
<tr>
<td>Sexual desire + Romantic love</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$b_0$</td>
<td>-0.92 (.28)</td>
<td>0.08 (.52)</td>
<td>&lt; .001 ***</td>
</tr>
<tr>
<td>$b_1$ (exp. condition)</td>
<td>0.03 (.51)</td>
<td>0.06 (.52)</td>
<td>.66</td>
</tr>
<tr>
<td>$b_2$ (cultural context)</td>
<td>-0.09 (.49)</td>
<td>0.10 (.53)</td>
<td>.40</td>
</tr>
<tr>
<td>$b_3$ (participant gender)</td>
<td>-0.28 (.43)</td>
<td>0.09 (.52)</td>
<td>.002 **</td>
</tr>
<tr>
<td>$b_4$ (culture $\times$ gender)</td>
<td>0.28 (.57)</td>
<td>0.13 (.53)</td>
<td>.03 *</td>
</tr>
<tr>
<td>Sexual desire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$b_0$</td>
<td>-2.08 (1.11)</td>
<td>0.08 (.52)</td>
<td>&lt; .001 ***</td>
</tr>
<tr>
<td>$b_1$ (exp. condition)</td>
<td>0.14 (.53)</td>
<td>0.07 (.52)</td>
<td>.04 *</td>
</tr>
<tr>
<td>$b_2$ (cultural context)</td>
<td>0.33 (.58)</td>
<td>0.07 (.52)</td>
<td>&lt; .001 ***</td>
</tr>
<tr>
<td>$b_3$ (participant gender)</td>
<td>0.06 (.51)</td>
<td>0.07 (.52)</td>
<td>.40</td>
</tr>
<tr>
<td>Romantic love</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$b_0$</td>
<td>-1.64 (.16)</td>
<td>0.08 (.52)</td>
<td>&lt; .001 ***</td>
</tr>
<tr>
<td>$b_1$ (exp. condition)</td>
<td>-0.10 (.48)</td>
<td>0.07 (.52)</td>
<td>.17</td>
</tr>
<tr>
<td>$b_2$ (cultural context)</td>
<td>-0.50 (.38)</td>
<td>0.11 (.53)</td>
<td>&lt; .001 ***</td>
</tr>
<tr>
<td>$b_3$ (participant gender)</td>
<td>-0.38 (.41)</td>
<td>0.10 (.52)</td>
<td>&lt; .001 ***</td>
</tr>
<tr>
<td>$b_4$ (culture $\times$ gender)</td>
<td>0.34 (.58)</td>
<td>0.14 (.54)</td>
<td>.02 *</td>
</tr>
</tbody>
</table>

Note. $b$ = unstandardized regression coefficient; $B_{back}$ = back-transformed regression coefficient; $SE$ = standard error; $SE_{back}$ = back-transformed standard error; $^\dagger$ $p < .10$; $^*$ $p < .05$; $^**$ $p < .01$; $^***$ $p < .001$
Prominence: Proportional Area Outcomes

I next evaluate each of three prominence outcomes for fit with the two predicted patterns described in H1 and H2, as well as describe and investigate any additional patterns associated with cultural context and participant gender. To recap, I operationally defined the prominence family of outcomes as the extent to which participants drew the sexual and/or romantic identity circle(s) large relative to the other identity circles. Each prominence outcome is a standardized proportion defined by the ratio of the sexual and/or romantic identity circle pixel area to the total pixel area of all drawn identity circles. I first tested the prominence of combined sexual desire and romantic love identity circles (M = .27, range = .02 - .91, SD = .14). Given diverging predictions concerning these two sexuality components in H1 and H2, I next separately tested the prominence (sexual desire) (M = .15, range = .01 - .65, SD = .11) and prominence (romantic) (M = .12, range = .01 - .65, SD = .10) outcomes (for a summary of results, see Table 8).

Model testing and reporting. Follow-up investigation of significant two-way interactions with these beta regression models required an additional manual computational step. Obtaining the conceptual equivalent of simple effects testing of interaction terms (such as in an ANOVA model) involved ascertaining whether each regression coefficient fell within the CIs of the other coefficients; I evaluated those that did not to significantly differ from the other coefficients. I first created vectors comprising only those coefficients involved in a

\[\text{Multiple comparisons are relatively uncommon with beta models, as evidenced by a lack of built-in macros for testing them in the GAMLSS package in R.}\]

\[\text{Inspection of CIs is not the only available method for evaluating significant differences among interaction terms. Visual inspection of predicted values for interaction terms in a beta regression model may also be accomplished using box plots of estimates (for an example of this approach, see Smithson, Budescu, Broomell, & Por, 2012). A more mathematically rigorous alternative method involves using Bonferroni adjusted } p \text{-values to account for error inflation.}\]
significant interaction, then manually added the intercept to each coefficient in the interaction. To conserve statistical power for detecting significant interactions in these and all further analyses, I opted to investigate only pairwise comparisons of theoretical interest. Consequently, I am limited to comparing specific referent groups against all remaining groups in reporting significant two-way interactions. As an analog of model effect size (e.g., change in $R^2$ values as with general linear regression models) cannot be directly computed with beta regression models, I instead report the raw model $\chi^2$ comparison values and statistical significance levels. In each final trimmed beta model, I first computed the beta standard errors (SEs) and confidence intervals (CIs); I then manually back-transformed the logit link (denoted by the subscript “back”) to get back to original proportion units for ease of interpretation.

**Results: prominence (combined sexual desire and romantic love) (n = 394).** I regressed the prominence (combined sexual desire and romantic love) outcome onto the three binary predictors. A model including main effects and one interaction between cultural context and participant gender evidenced better fit than both the intercept-only model ($\chi^2 = 12.05, p = .02$) or the main effects-only model ($\chi^2 = 4.57, p = .03$); a model including all two-way interactions failed to evidence better fit ($\chi^2 = 3.44, p = .18$). No additional significant two-way interactions were detected and were subsequently dropped from the model. The final trimmed model was thus limited to main effects and one two-way interaction. I did not detect any significant main effects for cultural context ($B_{\text{back}} = .48, \ SE_{\text{back}} = .53, p = .40, 95\% \ CI_{\text{back}}$

with multiple comparisons by dividing the alpha value by the number of comparisons. In lieu of (or comparison with) the Bonferroni adjustment one could also employ the Benjamini-Hochberg method to test for the false discovery rate associated with Type I error (Benjamini & Hochberg, 1995). However, these $p$-value adjustment approaches entail a loss of statistical power as well as increase the family-wise Type I error rate. In the end, as there is no consensus on the superiority (or not) of these mathematical adjustment techniques, and given the exploratory nature of these analyses, I opted for the visual method used here.
[.43, .53]) or experimental condition ($B_{\text{back}} = .51$, $SE_{\text{back}} = .52$, $p = .66$, 95% CI$_{\text{back}}$ [0.48, 0.54]). Women ($M = .25$, $SD = .12$) drew smaller combined sexual/romantic circles compared to men ($M = .28$, $SD = .13$); $B_{\text{back}} = .43$, $SE_{\text{back}} = .52$, $p = .002$, 95% CI$_{\text{back}}$ [.39, .47]. However, this main effect for participant gender was qualified by a significant interaction between participant gender and cultural context; $B_{\text{back}} = .57$, $SE_{\text{back}} = .53$, $p = .03$, 95% CI$_{\text{inv}}$ [.51, .63]. Inspection of this interaction revealed that US women drew significantly smaller combined sexual/romantic circles relative to the other three groups; $B_{\text{back}} = .23$, $SE_{\text{inv}} = .52$, $p = .002$, 95% CI$_{\text{back}}$ [.20, .26]. Figure 12 shows this two-way interaction of participant gender and cultural context on the outcome prominence (combined sexual desire and romantic love) after controlling for experimental condition. However, the large confidence intervals for both Japanese men and women, as seen in the interaction, suggest relatively broad variation in diagrams drawn by Japanese participants.

To summarize the results of this prominence outcome analysis, I was unable to find support for the contrasting patterns predicted by H1 and H2, which is theoretically unsurprising given the collapsing of both sexual desire and romantic love components for this outcome. That said, an apparent role for gender was explained by US women being less likely than other groups to accord sexuality relative importance in forming an impression of the fictional target, regardless of that target’s perceived sexual attraction.
Figure 12.

Interaction between cultural context and participant gender on the prominence (combined sexual desire and romantic love) outcome

**Results: prominence (sexual desire) (n = 392).** I regressed the prominence (sexual desire) outcome onto the three binary predictors. The main effects-only model evidenced better fit than the intercept-only model ($\chi^2 = 27.92, p < .001$); however, the all-interactions model failed to evidence significantly better fit than the main-effects only model ($\chi^2 = 1.36, p = .71$). No significant two-way interactions were detected. The final trimmed model was thus limited to main effects. I detected a significant main effect for experimental condition, such that participants in the SSA experimental condition ($M = .15, SD = .09$) drew larger sexual identity
circles compared to participants in the OSA condition (M = .13, SD = .09); B_{back} = .53, SE_{back} = .52, p = .04, 95% CI_{back} [.50, .57]. Additionally, I detected a significant main effect for participant cultural context, such that Japanese participants (M = .17, SD = .10) drew significantly larger sexual identity circles compared to their US peers (M = .12, SD = .08); B_{back} = .58, SE_{back} = .52, p < .001, 95% CI_{back} [.55, .61]. I did not find any significant differences for participant gender; B_{back} = .51, SE_{back} = .52, p = .40, 95% CI_{back} [.48, .55].

To summarize the results of this prominence outcome analysis, participants across culture and gender evaluated sexual desire as more prominent in forming impressions of the same-sex attracted man relative to the other-sex attracted man; this prominence outcome corresponds to the pattern predicted in H1. Furthermore, Japanese participants generally evaluated sexual desire as more prominent in forming their impressions compared to their US peers regardless of the target’s perceived sexual attraction.

**Results: prominence (romantic love) (n = 398).** I regressed the prominence (romantic love) outcome onto the three binary predictors. A model including main effects and one interaction between cultural context and participant gender evidenced better fit than both the intercept-only model ($\chi^2 = 30.06, p < .001$) or a main effects-only model ($\chi^2 = 5.77, p = .02$). A model with all two-way interactions included did not evidence significantly better fit than this one-interaction model ($\chi^2 = 5.96, p = .11$). As I did not detect any additional significant two-way interactions, the final trimmed model was thus limited to this two-way interaction and main effects. I did not detect any significant differences for experimental condition; B_{back} = .48, SE_{back} = .52, p = .17, 95% CI_{back} [.44, .51]. I did, however, find a significant main effect for cultural context, such that Japanese participants (M = .09, SD = .07) drew relatively smaller romantic identity circles compared to their US peers (M = .13, SD = .10); B_{back} = .38, SE_{back} = .53, p
<.001, 95% CI [.33, .43]. Additionally, I detected a main effect for participant gender, such
that women (M = .10, SD = .07) drew smaller sexual identity circles relative to men (M = .13,
SD = .10); B_{back} = .41, SE_{back} = .52, p < .001, 95% CI_{back} [.36, .45]. However, these main effects
were qualified by a significant interaction between participant gender and cultural context; B_{back} = .58, SE_{back} = .54, p = .02, 95% CI_{back} [.52, .65]. Inspection of this interaction revealed that US
men drew significantly larger romantic identity circles relative to the other groups; B_{back} = .16,
SE_{back} = .52, p < .001, 95% CI_{back} [.14, .19].

To summarize the results of this prominence outcome analysis, these separate main
effects for cultural context and gender were explained by US men evaluating romantic love as
more prominent relative to their peers in forming impressions, regardless of the target’s
perceived sexual attraction; these prominence results therefore did not contribute to my ability to
test the pattern predicted by H2. Figure 13 shows this two-way interaction of participant gender
and cultural context on outcome (after controlling for experimental condition).
Figure 13.

Interaction between cultural context and participant gender on the prominence (romantic love) outcome

Synthesis: Proportion Overlap Outcomes

I next evaluate two synthesis outcomes for fit with the two predicted patterns described in H1 and H2, as well as describe and investigate any additional patterns associated with cultural context and participant gender. In Chapter 4 I operationally defined the synthesis family of outcomes as the extent to which participants drew the sexual desire or romantic love identity circle(s) as overlapping with, and thus (in)distinguishable from, the remaining identity circles. This outcome represents a proportion of the sexual desire or romantic love identity circle area
overlapping with the remaining identity circles (see Figure 7, Chapter 4). These two outcomes correspond to the two predicted patterns (H1 and H2): synthesis of sexual desire with other identity circles (M = .26, range = 0 – 1.00, SD = .21); and synthesis of romantic love with other identity circles (M = .22, range = 0 – 1.00, SD = .21) (for a summary of results, see Table 8).

**Model testing and reporting.** Unlike the previous set of prominence outcomes, no interactions were detected for these synthesis outcomes. As an analog of model effect size, I again report the raw model comparison $\chi^2$ values and statistical significance levels. I then manually applied a back-transformation to get back to original units for ease of interpretation.

Model zero-one beta inflated regression coefficients, SEs, and confidence intervals (CIs) for these synthesis-outcome analyses represent back-transformed values (denoted by the subscript “back”) for ease of interpretation.

**Results: synthesis (sexual desire) (n = 400).** I regressed the synthesis (sexual desire) outcome onto the three binary predictors. A main effects-only model evidenced better fit than the intercept-only model ($\chi^2 = 9.90, p = .02$); an all two-way interactions model did not evidence better fit than this main effects-only model, however ($\chi^2 = 1.79, p = .62$). The final trimmed model was thus limited to main effects. I did not detect any differences by participant gender; $B_{\text{back}} = .53$, $SE_{\text{back}} = .52$, $p = .18$, 95% CI$_{\text{back}}$ [.49, .57]. However, Japanese participants (M = .23, SD = .18) drew significantly less overlapping area for the sexual identity circle relative to their US peers (M = .27, SD = .22), $B_{\text{back}} = .46$, $SE_{\text{back}} = .52$, $p = .03$, 95% CI$_{\text{back}}$ [.42, .50]. Additionally, while not statistically significant, a difference between experimental conditions approached significance such that participants in the SSA condition (M = .26, SD = .20) appeared to draw more overlapping area for the sexual identity circle than participants in the OSA condition (M = .24, SD = .21), $B_{\text{back}} = .54$, $SE_{\text{back}} = .52$, $p = .06$, 95% CI$_{\text{back}}$ [.50, .58].
To summarize the results of this synthesis outcome analysis, participants generally evaluated sexual desire as more embedded within other perceived identities for a same-sex attracted man relative to the other-sex attracted target; this synthesis outcome therefore provides support for the pattern predicted in H1. Additionally, these results indicate a cultural difference such that Japanese participants, compared to their US peers, evaluated sexual desire as less embedded among other identities when forming impressions of the target, regardless of perceived sexual attraction.

**Results: synthesis (romantic love) (n = 395).** I regressed the synthesis (romantic love) outcome onto the three binary predictors. A main effects-only model evidenced better fit than the intercept-only model ($\chi^2 = 12.15, p = .007$); an all two-way interaction model did not evidence better fit than this main effects-only model, however ($\chi^2 = 4.97, p = .17$). The final trimmed model was thus limited to main effects. I did not detect any statistically significant differences for either experimental condition ($B_{\text{back}} = .50$, $SE_{\text{back}} = .52$, $p = .83$, 95% CI$_{\text{back}}$ [.46, .54]) or participant gender ($B_{\text{back}} = .51$, $SE_{\text{back}} = .52$, $p = .64$, 95% CI$_{\text{back}}$ [.48, .55]). As with the synthesis (sexual desire) outcome, Japanese participants ($M = .19$, $SD = .19$) drew less overlapping area for the romantic identity circle than their US peers ($M = .25$, $SD = .19$), $B_{\text{back}} = .43$, $SE_{\text{back}} = .52$, $p < .001$, 95% CI$_{\text{back}}$ [.39, .47].

To summarize the results of this synthesis outcome analysis, these synthesis results did not contribute to my ability to test the pattern predicted in H2. However, these results indicate a cultural difference such that Japanese participants, compared to their US peers, evaluated romantic love as less embedded among other identities when forming impressions of the target, regardless of perceived sexual attraction.
Permeation: Overlap Count Outcomes

I next evaluate each of the *permeation* outcomes for fit with the two predicted patterns described in H1 and H2, as well as describe and investigate any additional patterns associated with cultural context and participant gender. In Chapter 4 I operationally defined the *permeation* family of outcomes as representing counts of how many identity circles were drawn intersecting with either/both the *sexual desire* or *romantic love* identity circle(s) (see Figure 7, Chapter 4). I first tested the permeation of combined sexual desire and romantic love identity circles (M = 1.35, range = 0 – 4, SD = 1.12). Given diverging predictions concerning these two sexuality components in H1 and H2, I next separately tested both the permeation of sexual desire (M = 1.79, range = 0 – 5, SD = 1.15) and permeation of romantic love (M = 1.41, range = 0 – 5, SD = .99) outcomes (for a summary of results, see Table 8).

**Model specification and reporting.** Testing model fit presented a challenge, as quasi-Poisson models do not lend themselves to standard chi-square goodness-of-fit tests in R. As a workaround, I also fit these permeation count data to a standard Poisson distribution using so-called “sandwich” estimators—robust standard errors that are sensitive to under-dispersion and adjust for spurious significance test results. Use of robust standard errors leads to qualitatively identical parameter estimates as a quasi-Poisson modeling approach (Zeileis, 2006). More practically, fitting a standard Poisson distribution with robust standard errors allowed for model comparison using standard goodness-of-fit tests. No two-way interactions were detected for these permeation outcomes. Effect size in nonlinear models for count outcomes such as Poisson regression is typically presented as the rate ratio, which is the multiplicative change in the predicted outcome. However, as an alternative I report the inverse-log transformed coefficients, which are equivalent to the rate ratio (Cameron & Trivedi, 2013). Model beta regression
coefficients, standard errors (SEs), and confidence intervals (CIs) for these permeation outcome analyses represent back-transformed values (denoted by the subscript “back”) for ease of interpretation.

**Results: permeation (combined sexual desire and romantic love) (n = 405).** I regressed the permeation (combined sexual desire and romantic love) outcome onto the three binary predictors (range = 1 to 4). A model consisting of only main effects evidenced a marginally better fit than the intercept-only model ($\chi^2 = 4.36, p = .09$); although unnecessary to test, I also tested a model with all two-way interactions, which failed to evidence better fit than the main effects-only model ($\chi^2 = 2.27, p = .52$). Despite marginally better fit and for exploratory purposes, I proceeded to specify a final model limited to main effects. No significant differences were detected by experimental condition ($B_{\text{back}} = 1.11, \text{SE}_{\text{back}} = 1.09, p = .19, 95\% \text{ CI}_{\text{back}} [0.95, 1.31]$), cultural context ($B_{\text{back}} = 0.90, \text{SE}_{\text{back}} = 1.09, p = .18, 95\% \text{ CI}_{\text{back}} [0.76, 1.05]$) or participant gender ($B_{\text{back}} = 0.88, \text{SE}_{\text{back}} = 1.09, p = .14, 95\% \text{ CI}_{\text{back}} [0.75, 1.04]$).

To summarize the results of this permeation outcome analysis, this first permeation outcome did not contribute to my ability to test the contrasting patterns predicted by H1 and H2, which is theoretically unsurprising giving the collapsing of both sexual desire and romantic love components for this outcome. To ascertain whether the combination of sexual desire and romantic love permeation outcomes perhaps interfered with detection of these two distinct predicted patterns, I proceeded to further explore each outcome separately.

**Results: permeation (sexual desire) (n = 405).** I regressed the permeation (sexual desire) outcome onto the three binary predictors (range = 1 to 5). A main effects-only model evidenced better fit than the intercept-only model ($\chi^2 = 8.38, p = .04$); an all two-way interactions model did not evidence better fit than this main effects-only model, however ($\chi^2 = 2.58, p = .46$).
The final trimmed model was thus limited to main effects. I detected a significant main effect for experimental condition, such that participants in the SSA condition (M = 1.94, SD = 1.21) drew more associations between sexual desire and other identities relative to participants in the OSA condition (M = 1.64, SD = 1.06); \( B_{\text{back}} = 1.18, \ SE_{\text{back}} = 1.07, \ p = .01, \ 95\% \ CI_{\text{back}} [1.04, 1.33] \). Cultural context was also significant, such that Japanese participants (M = 1.92, SD = 1.17) drew more associations between sexual desire and other identities compared to their US peers (M = 1.67, SD = 1.12); \( B_{\text{back}} = 1.15, \ SE_{\text{back}} = 1.06, \ p = .03, \ 95\% \ CI_{\text{back}} [1.01, 1.30] \). I did not detect a main effect for participant gender; \( B_{\text{back}} = 1.03, \ SE_{\text{back}} = 1.07, \ p = .61, \ 95\% \ CI_{\text{back}} [0.91, 1.18] \).

To summarize the results of this permeation outcome analysis, participants generally found sexual desire to be more interconnected to other identities for the same-sex attracted target compared to the other-sex attracted target; this outcome provides support for the pattern predicted in H1. Additionally, Japanese participants found sexual desire to be more interconnected to other identities in forming impressions, regardless of the target’s perceived sexual attraction.

**Results: permeation (romantic) (n = 404).** I regressed the permeation (romantic love) outcome onto the three binary predictors (range = 1 to 5). A main effects-only model evidenced better fit than the intercept-only model (\( \chi^2 = 30.38, \ p < .001 \)); an all two-way interactions model did not evidence better fit than the main effects-only model, however (\( \chi^2 = 2.78, \ p = .10 \)). The final trimmed model was thus limited to main effects. I detected a significant main effect for experimental condition, such that participants in the SSA condition (M = 1.30, SD = 0.90) drew less interconnection compared to participants in the OSA condition (M = 1.51, SD = 1.03); \( B_{\text{back}} = 0.85, \ SE_{\text{back}} = 1.07, \ p = .01, \ 95\% \ CI_{\text{back}} [0.75, 0.97] \). I also detected a significant main effect for cultural context, such that Japanese participants (M = 1.12, SD = 0.75) drew less
interconnection between romantic love and other identities compared to their US peers (M = 1.68, SD = 1.08); $B_{\text{back}} = 0.66, SE_{\text{back}} = 1.07, p < .001, 95\% \text{ CI}_{\text{back}} [0.58, 0.76]$. I did not detect any significant main effect for gender; $B_{\text{back}} = 0.90, SE_{\text{back}} = 1.07, p = .11, 95\% \text{ CI}_{\text{back}} [0.79, 1.03]$.

To summarize the results of this permeation outcome analysis, participants across cultural contexts generally found romantic love to be less interconnected to other identities when forming impressions of the same-sex attracted target, in comparison with the other-sex attracted target; this outcome provides support for the pattern predicted in H2. Additionally, Japanese participants, relative to their US peers, generally found romantic love to be less interconnected to the target’s other identities when forming impressions, regardless of the target’s perceived sexual attraction.
Table 10

Summary of Frequencies and Percentages of Drawn Union in Binary Outcomes by Experimental Condition, Cultural Context, and Participant Gender (N = 405)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Experimental Condition</th>
<th>Cultural Context</th>
<th>Participant Gender</th>
<th>Total Frequency (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M-F Frequency (Percent)</td>
<td>M-M Frequency (Percent)</td>
<td>US Frequency (Percent)</td>
<td>Japan Frequency (Percent)</td>
</tr>
<tr>
<td>Sexual desire U</td>
<td>151 (37.3%)</td>
<td>158 (39.0%)</td>
<td>155 (38.3%)</td>
<td>154 (38.0%)</td>
</tr>
<tr>
<td>Romantic love</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual desire U</td>
<td>19 (4.7%)</td>
<td>36 (8.9%)</td>
<td>23 (5.7%)</td>
<td>32 (7.9%)</td>
</tr>
<tr>
<td>Son in Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual desire U</td>
<td>37 (9.2%)</td>
<td>54 (13.3%)</td>
<td>34 (8.4%)</td>
<td>57 (14.1%)</td>
</tr>
<tr>
<td>College Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual desire U</td>
<td>15 (3.7%)</td>
<td>29 (7.2%)</td>
<td>22 (5.4%)</td>
<td>22 (5.4%)</td>
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<td>Team Member</td>
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<tr>
<td>Romantic Love U</td>
<td>34 (8.4%)</td>
<td>26 (6.4%)</td>
<td>37 (9.1%)</td>
<td>23 (5.7%)</td>
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<tr>
<td>College Student</td>
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</tr>
<tr>
<td>Romantic Love U</td>
<td>84 (20.7%)</td>
<td>68 (16.8%)</td>
<td>116 (28.6%)</td>
<td>36 (8.9%)</td>
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<tr>
<td>Worried</td>
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Table 11

Summary of coefficients, standard errors, significance tests, odds ratios and confidence intervals: Logistic regression models

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<thead>
<tr>
<th>Parameter</th>
<th>b</th>
<th>SE</th>
<th>p</th>
<th>OR</th>
<th>95% CI of OR</th>
<th>Parameter</th>
<th>b</th>
<th>SE</th>
<th>p</th>
<th>OR</th>
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<td></td>
<td></td>
<td></td>
<td><strong>Lower</strong></td>
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<td></td>
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<td><strong>Upper</strong></td>
</tr>
<tr>
<td>Sexual ∩ Romantic</td>
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</tr>
<tr>
<td>$b_0$</td>
<td>0.97</td>
<td>0.30</td>
<td>&lt;.001</td>
<td>***</td>
<td>2.64</td>
<td>$b_0$</td>
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<td>&lt;.001</td>
<td>***</td>
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<td>.24</td>
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<td>.59</td>
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<td>.37</td>
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<td>.46</td>
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<td>0.77</td>
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<td>$b_3$ (participant gender)</td>
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<td>0.34</td>
<td>.97</td>
<td></td>
<td>0.99</td>
<td>$b_3$ (participant gender)</td>
<td>-2.13</td>
<td>0.81</td>
<td>.007</td>
<td>***</td>
<td>0.11</td>
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<td>$b_4$ (culture × gender)</td>
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<td>0.50</td>
<td>.02</td>
<td>*</td>
<td>3.34</td>
<td>$b_4$ (condition × gender)</td>
<td>2.03</td>
<td>0.90</td>
<td>.03</td>
<td>*</td>
<td>7.61</td>
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<tr>
<td>$b_0$</td>
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<td>0.38</td>
<td>&lt;.001</td>
<td>***</td>
<td>0.07</td>
<td>$b_0$</td>
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<td>0.29</td>
<td>&lt;.001</td>
<td>***</td>
<td>0.40</td>
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<td>$b_1$ (exp. condition)</td>
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<td>0.32</td>
<td>.006</td>
<td>**</td>
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<td>-0.56</td>
<td>0.30</td>
<td>.06</td>
<td>†</td>
<td>0.57</td>
</tr>
<tr>
<td>$b_2$ (cultural context)</td>
<td>0.59</td>
<td>0.31</td>
<td>.06</td>
<td>†</td>
<td>1.80</td>
<td>$b_2$ (cultural context)</td>
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<td>0.31</td>
<td>.02</td>
<td>*</td>
<td>0.49</td>
</tr>
<tr>
<td>$b_3$ (participant gender)</td>
<td>-0.17</td>
<td>0.31</td>
<td>.59</td>
<td></td>
<td>0.85</td>
<td>$b_3$ (participant gender)</td>
<td>-0.58</td>
<td>0.30</td>
<td>.05</td>
<td>*</td>
<td>0.56</td>
</tr>
<tr>
<td>Sexual ∩ Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$b_0$</td>
<td>-1.99</td>
<td>0.44</td>
<td>&lt;.001</td>
<td>***</td>
<td>0.14</td>
<td>$b_0$</td>
<td>0.47</td>
<td>0.30</td>
<td>&lt;.001</td>
<td>***</td>
<td>1.60</td>
</tr>
<tr>
<td>$b_1$ (exp. condition)</td>
<td>0.67</td>
<td>0.54</td>
<td>.22</td>
<td></td>
<td>1.95</td>
<td>$b_1$ (exp. condition)</td>
<td>0.49</td>
<td>0.45</td>
<td>.27</td>
<td></td>
<td>1.63</td>
</tr>
<tr>
<td>$b_2$ (cultural context)</td>
<td>1.56</td>
<td>0.46</td>
<td>&lt;.001</td>
<td>***</td>
<td>4.76</td>
<td>$b_2$ (cultural context)</td>
<td>-1.34</td>
<td>0.31</td>
<td>&lt;.001</td>
<td>***</td>
<td>0.26</td>
</tr>
<tr>
<td>$b_3$ (participant gender)</td>
<td>-1.04</td>
<td>0.41</td>
<td>.01</td>
<td>*</td>
<td>0.35</td>
<td>$b_3$ (participant gender)</td>
<td>-0.29</td>
<td>0.32</td>
<td>.37</td>
<td></td>
<td>0.75</td>
</tr>
<tr>
<td>$b_4$ (condition × culture)</td>
<td>-1.00</td>
<td>0.56</td>
<td>.08</td>
<td>†</td>
<td>0.37</td>
<td>$b_4$ (condition × culture)</td>
<td>-1.61</td>
<td>0.56</td>
<td>.004</td>
<td>**</td>
<td>0.20</td>
</tr>
<tr>
<td>$b_5$ (condition × gender)</td>
<td>1.02</td>
<td>0.53</td>
<td>.05</td>
<td>*</td>
<td>2.77</td>
<td>$b_5$ (condition × gender)</td>
<td>-0.93</td>
<td>0.50</td>
<td>.07</td>
<td>†</td>
<td>0.40</td>
</tr>
</tbody>
</table>

*Note.* $b$ = unstandardized regression coefficient; $SE$ = standard error; $OR$ = odds ratio; $CI$ = confidence interval; † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$
**Association: Binary Overlap Outcomes**

Finally, I evaluate each of the *association* outcomes for fit with the two predicted patterns described in H1 and H2, as well as describe and investigate any additional patterns associated with cultural context and participant gender. In Chapter 4 I operationally defined the *association* family of outcomes as binary overlap between *sexual desire* or *romantic love* identity circles and each of the remaining four identity circles. For the sake of efficiency, I have opted to repurpose the symbol “∩” as shorthand for denoting the intersection of the two identity circles comprising each *association* outcome in the analyses below (see Figure 7, Chapter 4).\(^{121}\) I separately regressed six *association* outcomes onto the three predictors: 1) sexual desire ∩ romantic love (total frequency = 309, 76.3%); 2) sexual desire ∩ son in the family (total frequency = 55, 13.6%); 3) sexual desire ∩ college student (total frequency = 91, 22.5%); 4) sexual desire ∩ baseball team member (total frequency = 44, 10.9%); 5) romantic love ∪ college student (total frequency = 60, 14.8%); and 6) romantic love ∩ worried (total frequency = 152, 37.5%). A full summary of frequencies and percentages for each *association* outcome is displayed in Table 10; for a summary of *association* outcome results, see Table 11.

**Model testing and reporting.** All logistic regression models were constructed using an iterative maximum likelihood procedure. I also tested for homogeneity of slopes in the regression equation (Engqvist, 2005). I did not run regression models for outcomes where one or more cross tabulation cells had fewer than five cases.\(^{122}\) Analyses of the three-way interaction

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\(^{121}\) In applications of set theory, the symbol ∩ denotes intersection using set builder notation.

\(^{122}\) Consequently, I did not analyze three additional outcome variables of theoretical interest: sexual desire ∩ worried; romantic love ∩ son in family; and romantic love ∩ baseball team member—due to the presence of zero cell counts. Of note, these zero cell counts were exclusive to the Japanese sample. This stark cultural trend, while statistically uninterpretable in the current analyses, does suggest at minimum that this *association* family of outcomes may be less sensitive for detecting associations between these sexuality components and selected identities in
between experimental condition, cultural context and participant gender for these six outcomes was not possible due to the presence of zero cell counts. In the case of statistically significant moderating factors (two-way interactions), I first calculated the estimates for each group directly from the model coefficients to provide an interpretive context for detected interactions, followed by more rigorous inspection of conditional effects. To conserve statistical power for easier detection of statistically significant interactions, I opted not to perform multiple pairwise comparisons of interaction terms, instead only analyzing interactions of theoretical interest. All reported beta weights for the following six association-outcome analyses are unstandardized as all use the same metric due to their binary nature. I transformed the confidence intervals into odds ratios by manually exponentiating them for ease of interpretation (denoted by the subscript “OR”; Menard, 2010). All reported model effect sizes reflect Nagelkerke’s pseudo-$R^2$ (an adjustment of Cox and Snell’s $R^2$).

**Results: sexual desire ∩ romantic love (n = 402):** I regressed the outcome of association between sexual desire and romantic love identity circles onto the three predictor variables. The final model, consisting of all main effects and one two-way interaction between cultural context and participant gender, evidenced significantly better fit over the intercept-only model; $\chi^2 (4, n = 402) = 12.99, p = .01, R^2_{\text{Nagelkerke}} = .05$. None of the predictors were individually associated with drawn overlap between sexual desire and romantic love circles: experimental condition ($b = 0.25, \text{SE} = 0.24, p = .24, \text{OR} = 1.28, 95\% \text{CI}_{\text{OR}} [0.80, 2.06]$); cultural context ($b =$

\[ \text{a Japanese context. I revisit this potential limitation in the Discussion (Chapter 7).} \]

\[ \text{123 There are several different ways to calculate an } R^2 \text{ for logistic regression, and no consensus on which one is best (for discussion, see Mittlböck & Schemper, 1996; Menard, 2000). The two methods that are most often reported in statistical software packages are attributed to McFadden (1974) or Cox and Snell (1989), along with a “corrected” version for the latter which can reach a maximum value of 1. Somewhat confusingly, SPSS refers to the “corrected” Cox-Snell as Nagelkerke’s } R^2. \]
-0.32, SE = 0.37, p = .37, OR = 0.73, 95% CI_{OR} [0.35, 1.50]); or participant gender (b = -0.01, SE = 0.34, p = .97, OR = 0.99, 95% CI_{OR} [0.51, 1.91]). However, I detected a significant interaction, such that the association of cultural context and drawn overlap was moderated by participant gender, b = 1.21, SE = 0.50, p = .02, OR = 3.34, 95% CI_{OR} [1.25, 8.96]. Inspection of the conditional effect of cultural context on the outcome (i.e., at the different levels of the moderating variable of participant gender) revealed that while men were not found to differ across cultural context, women were. Specifically, Japanese women were almost 2.5 times more likely to draw association between sexual desire and romantic love compared to US women, controlling for experimental condition; b = 0.88, SE = 0.34, p = .01, OR = 2.41, 95% CI_{OR} [1.24, 4.69].

To summarize these results, this association outcome did not contribute to my ability to test the pattern predicted in H1. However, there was marginal evidence that Japanese women more frequently perceived a link between sexual desire and romantic love, compared to US women, in forming impressions, regardless of the target’s perceived sexual attraction; no such link was detected among men.

**Results: sexual desire ∩ son in family (n = 403):** I regressed the association between sexual desire and son in the family identity circles onto the three predictor variables. The final model, consisting of all main effects, evidenced significantly better fit than the intercept-only model; χ² (3, n = 403) = 12.12, p = .01, R²_{Nagelkerke} = .06. A logistic regression analysis of drawn association between sexual desire and the son in the family circles revealed significant main effects. Controlling for cultural context and participant gender, experimental condition was statistically significant, such that participants in the SSA condition were more likely to draw overlap compared to participants in the OSA condition; b = 0.88, SE = .032, p = .006, OR =
2.40, 95% CI OR [1.28, 4.50]. Additionally, after controlling for experimental condition and participant gender, a marginally significant main effect was detected for cultural context such that Japanese participants were nearly twice as likely to draw overlap than their American counterparts; \( b = 0.59, \ SE = 0.31, \ p = .06, \ OR = 1.80, \ 95\% \ CI_{OR} [0.97, 3.29] \). I found no similar effect for participant gender; \( b = -0.17, \ SE = 0.31, \ p = .59, \ OR = 0.85, \ 95\% \ CI_{OR} [0.46, 1.55] \).

To summarize the results of this association outcome analysis, participants more frequently perceived a link between sexual desire and the target’s role as a son in his family when that target evidenced same-sex attraction; this outcome thus provides support for the pattern predicted in H1. Additionally, Japanese participants appeared to find the target’s sexual desire more linked to his perceived role as a son in his family compared to their US peers, regardless of his perceived sexual attraction.

**Results: sexual desire \bigcap \text{college student (n = 401)}**: I next regressed the binary association between of sexual desire and college student identity circles onto the three predictor variables. The final model, consisting of all main effects and two 2-way interactions evidenced significantly better fit than the intercept-only model; \( \chi^2 (5, n = 401) = 28.24, \ p < .001, \ R^2_{\text{Nagelkerke}} = .11 \). Controlling for participant gender and experimental condition, cultural context was significantly associated with the overlap of sexual desire and good student identities such that Japanese participants were more likely to draw overlap than their US peers; \( b = 1.56, \ SE = 0.46, \ p < .001, \ OR = 4.76, \ 95\% \ CI_{OR} [1.91, 11.77] \). Controlling for cultural context and experimental condition, gender was also significantly associated with drawn overlap, such that male participants appeared more likely to draw overlap than other participants; \( b = -1.04, \ SE = 0.41, \ p = .01, \ OR = 0.35, \ 95\% \ CI_{OR} [0.16, 0.79] \). I did not detect a significant main effect for experimental condition after controlling for cultural context and participant gender; \( b = 0.67, \ SE \)
= 0.54, \( p = .22 \), OR = 1.95, 95% CI_{OR} [0.68, 5.61].

However, both these main effects appeared to be qualified by a marginally significant interaction such that the effect of cultural context on the outcome depended on experimental condition; \( b = -1.00, \ SE = 0.56, p = .08 \), OR = 0.37, 95% CI_{OR} [0.12, 1.16]. Specifically, in the OSA condition Japanese participants appeared nearly five times more likely to draw association than US participants. However, this effect was attenuated somewhat in the SSA condition such that Japanese participants, while still more likely than their US peers, appeared only 1.5 times as likely to draw this association. I also detected a second marginally significant interaction, such that the effect of gender on the outcome also appeared to depend on experimental condition; \( b = 1.02, \ SE = 0.53, p = .05 \), OR = 2.77, 95% CI_{OR} [0.99, 7.78]. Looking at the estimates for each group, men appeared nearly three times more likely to draw association than women in the OSA condition. However, this effect was fully attenuated in the SSA condition such that any apparent effect of participant gender was effectively cancelled out by the interaction.

Inspection of the conditional effects of experimental condition on the outcome at levels of both moderators (cultural context and participant gender) provided a clearer picture of these apparent patterns. Specifically, while I did not detect an effect of experimental condition for men (either US or Japanese), I did detect a significant conditional effect for US women (\( b = 1.69, \ SE = 0.53, p = .001 \), OR = 5.42, 95% CI_{OR} [1.92, 15.29]) and a marginally significant conditional effect for Japanese women (\( b = 0.69, \ SE = 0.39, p = .08 \), OR = 1.99, 95% CI_{OR} [0.93, 4.31]). That is, even after taking into account that US women constituted the least likely group to draw association across conditions relative to their peers, they (and possibly Japanese women) were still more likely to draw association between sexual desire and college student circles in the SSA condition than in the OSA condition.
To summarize the results of this association outcome analysis, I found a trend such that Japanese participants perceived the target’s sexual desire to be linked to his identity as a college student more frequently than US participants; a similar difference was found for men compared to women. A closer look, however, revealed that these apparent overall cultural and gendered trends obscured how women in the US (and possibly in Japan) drew this link more often when the target was perceived to be same-sex attracted rather than other-sex attracted; both interactions therefore provide tentative support for the predicted pattern in H1, with the caveat that this experimental effect appeared limited to women in the US and Japan.

**Results: sexual desire ∩ baseball team member (n = 401):** I regressed the outcome of binary association between of sexual desire and baseball team member identity circles onto the three predictor variables. The final model, consisting of all main effects and one 2-way interaction between experimental condition and participant gender, evidenced significantly better fit than the intercept-only model; $\chi^2 (4, n = 401) = 19.72, p = .001, R^2_{\text{Nagelkerke}} = .10$. Neither experimental condition ($b = 0.26, SE = 0.49, p = .59, OR = 1.30, 95\% \text{ CI}_{OR} [0.50, 3.41]$) nor cultural context ($b = -0.26, SE = 0.35, p = .46, OR = 0.77, 95\% \text{ CI}_{OR} [0.39, 1.53]$) individually predicted overlap between the sexual desire and baseball team member circles. Controlling for culture and experimental condition, participant gender was significantly associated with the overlap of sexual and baseball team member identities such that men were more likely to draw association than women; $b = -2.18, SE = 0.81, p = .007, OR = 0.11, 95\% \text{ CI}_{OR} [0.02, 0.55]$.

However, this main effect for participant gender was qualified by a significant interaction such that the association of gender and drawn overlap was moderated by experimental condition; $b = 2.03, SE = 0.90, p = .03, OR = 7.60, 95\% \text{ CI}_{OR} [1.29, 44.69]$. Inspection of the conditional effect of participant gender on the outcome (i.e., at the different
levels of the moderating variable of experimental condition) revealed that while no gender differences were evident in the SSA condition, a gender difference did exist in the OSA condition. Specifically, in the OSA condition men were about nine times more likely to draw association between sexual desire and baseball team member compared to women, controlling for cultural context; $b = -2.18$, $SE = 0.81$, $p = .007$, $OR = 0.11$, 95% CI$_{OR}$ [0.02, 0.55].

To summarize the results of this association outcome analysis, while men appeared more likely than women to find a link between the target’s sexual desire and his role as baseball team member in general, this gender difference was only evident when perceiving the target to be other-sex attracted. As such, these findings provide tentative support for H2, with the caveat that this experimental effect seemed limited to men in the US and Japan.

**Results: romantic love $\cap$ college student ($n = 403$):** I regressed the outcome of binary association between romantic love and college student identity circles onto the three predictor variables. The final model, consisting of all main effects, evidenced significantly better fit than the intercept-only model, $\chi^2 (3, n = 403) = 12.30$, $p = .006$, $R^2_{\text{Nagelkerke}} = .05$. Controlling for both participant gender and cultural context revealed a marginally significant main effect of experimental condition, such that the association of romantic love and good student identities appeared more likely among participants assigned to the OSA condition; $b = -0.56$, $SE = 0.30$, $p = .06$, $OR = 0.57$, 95% CI$_{OR}$ [0.32, 1.02]. Controlling for participant gender and experimental condition, US participants were more likely to draw association than their Japanese peers; $b = -0.72$, $SE = 0.31$, $p = .02$, OR = 0.49, 95% CI$_{OR}$ [0.27, 0.89]. Also, controlling for experimental condition and cultural context, men were more likely to draw association than women; $b = -0.58$, $SE = 0.30$, $p = .05$, OR = 0.56, 95% CI$_{OR}$ [0.31, 0.99].

To summarize the results of this association outcome analysis, participants appeared to
more frequently perceive a link between the target’s feelings of romantic love and his role as a college student when also perceiving that target as same-sex attracted; this finding thus does not support, and instead contradicts, the pattern predicted in H2. Additionally, US participants also more frequently perceived this association compared to their Japanese peers; similarly, men perceived this association more frequently than women.

**Results: romantic love ∩ worried (n = 402):** I regressed the outcome of binary association between romantic love and worried identity circles onto the three predictor variables. The final model, consisting of all main effects and two 2-way interactions, evidenced significantly better fit than the intercept-only model; $\chi^2 (5, n = 402) = 92.45, p < .001$, $R^2_{\text{Nagelkerke}} = .28$. Neither experimental condition ($b = 0.49$, SE = 0.45, $p = .27$, OR = 1.63, 95% CI<sub>OR</sub> [0.68, 3.91]) nor participant gender ($b = -0.29$, SE = 0.32, $p = .37$, OR = 0.75, 95% CI<sub>OR</sub> [0.40, 1.06]) individually predicted overlap between the romantic love and worried identity circles.

Controlling for participant gender and experimental condition, cultural context was significantly associated with the overlap of romantic and worried identities such that US participants were more likely to draw overlap compared to their Japanese peers; $b = -1.34$, SE = 0.31, $p < .001$, OR = 0.26, 95% CI<sub>OR</sub> [0.14, 0.48].

However, this main effect was qualified by a significant interaction such that the effect of cultural context on the outcome depended on experimental condition; $b = -1.61$, SE = 0.56, $p = .004$, OR = 0.20, 95% CI<sub>OR</sub> [0.07, 0.60]. Specifically, in the OSA condition US participants were nearly four times more likely to draw association than their Japanese peers. However, this effect was considerably amplified in the SSA condition, such that US participants were nearly 20 times more likely to draw association than their Japanese peers. I also detected a second, marginally significant interaction, such that the effect of gender on the outcome also appeared to
depend on experimental condition; \( b = -0.93, \ SE = 0.50, \ p = .07, \ OR = 0.40, \ 95\% \ CI_{OR} \ [0.15, 1.06] \). Specifically, in the OSA condition men were nearly 1.3 times more likely to draw association than women. However, this effect was amplified in the SSA condition, such that men were now nearly 3.5 times more likely to draw association than women.

Inspection of the conditional effects of experimental condition on the outcome at levels of both moderators (cultural context and participant gender) provided a clearer picture of these distinct patterns. Specifically, while I did not detect an effect of experimental condition for US participants (either men or women), I did find a significant conditional effect for Japanese men \((b = -1.12, \ SE = 0.52, \ p = .03, \ OR = 0.33, \ 95\% \ CI_{OR} \ [0.12, 0.91])\) and Japanese women \((b = -2.04, \ SE = 0.54, \ p < .001, \ OR = 0.13, \ 95\% \ CI_{OR} \ [0.04, 0.37])\). That is, even after taking into account that Japanese participants were significantly less likely to draw association between romantic love and worried relative to their US peers across experimental conditions, this lack of association in Japanese men’s and women’s drawings was even more pronounced in the SSA condition compared to the OSA condition.

To summarize the results of this association outcome analysis, both cultural context and gender appeared to play a role in perceptions of a link between the target’s feelings of both romantic love and worry overall. A closer look, however, revealed that these general trends obscured how Japanese men and women alike drew this link less often when the target was perceived to be same-sex attracted rather than other-sex attracted. As such, these findings provide support for the predicted pattern in H2, with the caveat that this effect appeared limited to Japanese women and men for this association outcome.
Table 12

Conceptual Summary of Hypothesis Testing Results: Ordinal and Continuous Regression Model Outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Prominence</th>
<th>Synthesis</th>
<th>Permeation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Result of null hypothesis test</td>
<td>Hypothesis supported</td>
<td>Result of null hypothesis test</td>
</tr>
<tr>
<td>Sexual desire + Romantic love circle area combined</td>
<td>Main effects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSA ≈ SSA</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>US ≈ Japan</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Men &gt; Women</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interaction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>US Women &lt; other groups</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Sexual desire circle area</td>
<td>Main effects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSA &lt; SSA</td>
<td>H1</td>
<td>OSA ≈ SSA</td>
</tr>
<tr>
<td></td>
<td>US &lt; Japan</td>
<td>*</td>
<td>US &gt; Japan</td>
</tr>
<tr>
<td></td>
<td>Men ≈ Women</td>
<td>—</td>
<td>Men ≈ Women</td>
</tr>
<tr>
<td>Romantic love circle area</td>
<td>Main effects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSA ≈ SSA</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>US &gt; Japan</td>
<td>*</td>
<td>US &gt; Japan</td>
</tr>
<tr>
<td></td>
<td>Men &gt; Women</td>
<td>*</td>
<td>Men ≈ Women</td>
</tr>
<tr>
<td></td>
<td>Interaction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>US Men &gt; other groups</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

Note. OSA = male-female attraction experimental condition; SSA = male-male attraction experimental condition; Hx = empirical support for hypothesized direction; * = statistically significant, no a priori hypothesis; — = no empirical support for hypothesis; † = approaches statistical significance.
Table 13
Conceptual Summary of Hypothesis Testing Results: Logistic Regression Model Outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Result of null hypothesis test</th>
<th>Hypothesis supported</th>
<th>Outcome</th>
<th>Result of null hypothesis test</th>
<th>Hypothesis supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Desire U</td>
<td>Main effects:</td>
<td></td>
<td>Sexual Desire U</td>
<td>Main effects:</td>
<td></td>
</tr>
<tr>
<td>Romantic Love</td>
<td>OSA ≈ SSA</td>
<td>—</td>
<td>Team Member</td>
<td>OSA ≈ SSA</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>US ≤ Japan</td>
<td>—</td>
<td>US ≈ Japan</td>
<td>US ≈ Japan</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Men ≈ Women</td>
<td>—</td>
<td>Men &gt; Women</td>
<td>Men &gt; Women</td>
<td>*</td>
</tr>
<tr>
<td>Conditional effects:</td>
<td></td>
<td></td>
<td>Conditional effects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese women &gt;</td>
<td>Japanese women &gt;</td>
<td>*</td>
<td>Men in OSA &gt;</td>
<td>Men in OSA &gt;</td>
<td>*</td>
</tr>
<tr>
<td>US women</td>
<td>US women</td>
<td>*</td>
<td>Women in OSA</td>
<td>Women in OSA</td>
<td></td>
</tr>
<tr>
<td>Sexual Desire U</td>
<td>Main effects:</td>
<td></td>
<td>Romantic Love U</td>
<td>Main effects:</td>
<td></td>
</tr>
<tr>
<td>Son in Family</td>
<td>OSA &lt; SSA</td>
<td>H₁</td>
<td>College Student</td>
<td>OSA ≤ SSA</td>
<td>— H₂†</td>
</tr>
<tr>
<td></td>
<td>US ≤ Japan</td>
<td>* †</td>
<td>US &gt; Japan</td>
<td>US &gt; Japan</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Men ≈ Women</td>
<td>—</td>
<td>Men &gt; Women</td>
<td>Men &gt; Women</td>
<td>*</td>
</tr>
<tr>
<td>Sexual Desire U</td>
<td>Main effects:</td>
<td></td>
<td>Romantic Love U</td>
<td>Main effects:</td>
<td></td>
</tr>
<tr>
<td>College Student</td>
<td>OSA ≈ SSA</td>
<td>—</td>
<td>Worried</td>
<td>OSA ≈ SSA</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>US &lt; Japan</td>
<td>*</td>
<td>US &gt; Japan</td>
<td>US &gt; Japan</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Men &gt; Women</td>
<td>*</td>
<td>Men ≈ Women</td>
<td>Men ≈ Women</td>
<td>—</td>
</tr>
<tr>
<td>Conditional effects:</td>
<td></td>
<td></td>
<td>Conditional effects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Japanese women in OSA</td>
<td>H₁†</td>
<td>OSA &gt; Japanese men in OSA</td>
<td>Japanese women in</td>
<td>H₂</td>
</tr>
<tr>
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*Note. OSA = male-female attraction experimental condition; SSA = male-male attraction experimental condition; H₁ = empirical support for hypothesized direction; — H₂† = statistically significant but not in hypothesized direction; * = statistically significant, no a priori hypothesis; — = no empirical support for hypothesis; † = approaches statistical significance*
Inferring the Presence of Inductive Potential Beliefs

Having analyzed these prominence, synthesis, permeation and association outcomes, I am now positioned to determine the extent to which these analytic findings collectively support the two distinct patterns predicted in H1 and H2 for the two sexuality components of sexual desire and romantic love. While one may reasonably argue that the experimental results of any one of these outcomes may constitute an artifact of the impression formation task, consistent detection of these two patterns across these outcomes would strongly implicate the presence of participants’ inductive potential beliefs about the sexual orientation categories “homosexual man” and “heterosexual man.” I am also positioned to consider any additional patterns present in these outcomes in terms of the additional predictors of cultural context and participant gender. Detection of such patterned variation would strongly implicate the role of gendered and cultural positionalities in the mobilization of these inductive potential beliefs.

Empirical support for predicted patterns. A summary of empirical support for H1 and H2 in terms of the eight prominence, synthesis and permeation continuous outcomes may be found in Table 12. A similar summary of the six association outcomes may be found in Table 13. As may be gleaned from these tables, consistent yet distinct patterns emerged across these four sets of outcomes in relation to the two sexuality components of sexual desire and romantic love. Controlling for cultural context and gender, participants associated sexual desire as a more centrally defining characteristic—that is, as more deeply embedded within and broadly interconnected with other identities—in forming impressions of the same-sex attracted target relative to the other-sex attracted target, across multiple outcomes. When considering the same-sex attracted target’s feelings of romantic love, however, a contrasting pattern emerged. Participants associated romantic love as a less centrally defining characteristic of the same-sex
attracted target, again relative to the other-sex attracted target and across multiple outcomes. These distinct and contrasting patterns thus aligned with those predicted in H1 and H2.

These contrasting experimental patterns did not always hold equally across cultural contexts and genders, however. Only US (and possibly Japanese) women were more likely to associate the same-sex attracted target’s sexual desire with his role as a college student. Additionally, only Japanese participants were less likely to associate the same-sex attracted target’s romantic love with feelings of worry. These two outcomes together suggest participants brought different cultural and gendered interpretive lenses to bear when evaluating the vignettes, depending on the perceived sexual orientation of the target. It is unclear from these analyses how those interpretive lenses were constituted or how they were deployed by participants.

**Additional cultural and gendered patterns.** Support for the two predicted patterns did not constitute the entire story, however. After controlling for experimental manipulation, I detected additional consistent patterns across outcomes on the predictors of cultural context and participant gender. Compared to their US peers, Japanese participants associated *sexual desire* as more centrally defining, and *romantic love* as less centrally defining, for men generally—a pattern notably similar to my prediction for inductive potential beliefs about homosexual men. Young men in Japan and the US also appeared to attribute more importance to men’s social roles compared to women in relation to sexual desire and romantic love. Taken together, these additional cultural and gendered patterns strongly implicate the discursive work of ideologies concerning what it is to be a man in the US and Japan. However, how these ideologies relate to

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124 Readers will note from Table 13 that participants appeared more likely to perceive a link between the same-sex attracted target’s feelings of romantic love and his role as a college student, relative to the other-sex attracted target. While this *association* outcome was contrary to the pattern predicted by H2, this deviation was an isolated one. I return to this outlier in discussing limitations of the impression formation task used in this study (see Chapter 7).
inductive potential beliefs about sexual orientation categories remains unclear in these analyses.

**Conclusions and next steps.** At minimum, the presence of such distinct and consistent patterns across these outcomes indicate the utility of separately investigating laypeople’s constructed representations of these two components of sexuality, *sexual desire* and *romantic love*. My ability to detect these distinct yet consistent patterns across multiple outcomes also, I argue, helps to establish support for the reliability and validity of this discourse-based methodology as well as Euler diagram-based method. Furthermore, detection of additional gendered and cultural effects above and beyond the primary hypothesized patterns lend additional support for establishing the sensitivity of this Euler diagram-based instrument for inter- and intra-cultural comparative research designs.

More consequential for a critically reconstructed theory of psychological essentialism, however, is that these distinct and consistent patterns align with the discursive patterns predicted in H1 and H2. Participants indicated that knowledge of the gendered object of a fictional man’s sexual attraction meaningfully informed their impressions of the relative centrality of that target’s sexual desire and romantic love in ways corresponding to shared cultural stereotypes of heterosexual and homosexual social categories. While individual factors doubtless influenced each participant’s own constructed representations of the fictional target in this impression formation task, these distinct, consistent and contrasting patterns across multiple outcomes strongly implicate the role(s) of shared cultural stereotypes concerning sexual orientation categories. As such, these empirical results provide tentative theoretical support for inferring participants’ mobilization of inductive potential beliefs and, consequently, their essentialist thinking about sexual orientation categories in both US and Japanese contexts.

Variations on these patterns among Japanese and US participants, as well as women
and men, however, raise new questions concerning the relevance of ideological beliefs about men and men’s social roles in young men’s and women’s mobilization of a sexual orientation discourse in Japan and the US. Needed is a more nuanced understanding of the gendered and cultural ways laypeople mobilize an essentialist discourse of binary sexual orientation capable of further explicating these patterns. The research task must therefore now turn to further exploration of the shared cultural and gendered discourses likely drawn upon by participants in the creation of these Euler diagrams.
CHAPTER 6: Study 2: Toward Interpretation of Euler Diagrammatic Patterns: A Thematic Analysis of Sexual Orientation Discourses in the US and Japan

Empirical confirmation of the predicted pattern of group differences in men’s sexual desire and romantic love in Study 1 strongly implicates the discursive work of laypeople’s inductive potential beliefs about sexual orientation categories in the US and Japan. Controlling for cultural context and gender, Study 1 participants deemed sexual desire a more centrally defining characteristic in forming impressions of a same-sex attracted target relative to an other-sex attracted target. When considering that target’s feelings of romantic love, however, participants deemed romantic love a less centrally defining characteristic of the same-sex attracted target. Cultural and gendered differences added additional nuance to these experimental patterns: Japanese participants associated men with greater sexual desire and less romantic love relative to their US peers, regardless of perceived sexual orientation. Additionally, US and Japanese men, compared to women, appeared to associate these two components of sexuality more frequently with men’s social roles.

As identification of these quantitative patterns is not equivalent to explanation of those patterns, however, my ability to interpret these group-level patterns required an additional empirical step. Applying the critical amalgam methodology developed in Chapter 3 of this dissertation, I therefore approached these generated Euler diagrams not only as quantifiable data but also as discursive products reflecting Study 1 participants’ mobilization of culturally available discourses of sexual orientation. In an effort to lend credibility to my subsequent discursive interpretations of these quantitative patterns, I drew upon the lay expertise and cultural competence of a second sample of participants in both New York City and Tokyo. These
participants—representing peers of the original Study 1 participants—constituted “interpretive communities” (Fish, 1980) through separate focus group analysis of a selection of 30 Euler diagrams produced by Study 1 participants.

I turn my attention in this chapter to a discursive, empirical investigation of the culturally distinct and gendered ways these Study 2 participants mobilized discourses of sexual orientation in their own interpretations of the Euler diagrams produced in Study 1 using individual written responses following these focus group sessions as data. Specifically, I explore the following research questions:

1. First, in what ways were discourses of sexual orientation, inclusive of essentialist discourses of binary sexual orientation, mobilized by US and Japanese focus group participants in their interpretations of the Euler diagrams produced in Study 1?

2. Second, in what ways were those sexual orientation discourses mobilized in men’s and women’s understanding of men’s sexual desire, romantic love and social roles in the US and Japan?

3. Finally, in what ways does my analysis of Questions 1 and 2 inform my ability to interpret the material generation of these Euler diagrams and, consequently, the quantitative patterns from Study 1?

In answering these questions, I attempt to unpack complexly interwoven universes of discourse in both US and Japanese contexts concerning sexual desire, romantic love, and sexual orientation. I then thematically analyzed these focus group and individual response data for the

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125 My choice to focus conceptually on sexual orientation as a binarism of “heterosexual” and “homosexual” is not intended to erase other possible configurations and subjective experiences of sexual identity (e.g., bisexuality or pansexuality). Rather, my goal is to focus on laypeople’s mobilization of an essentialist and heteronormative discourse of sexual orientation.
culturally rich, nuanced and often tension-filled ways participants mobilized sexual orientation discourses in interpreting these Euler diagrams. I then integrated these discursive themes with each other and current multidisciplinary scholarship to explicate the inductively rich cultural and gendered meanings associated with social categories of heterosexual and homosexual men. Finally, I explicate how I applied this knowledge in my interpretation of the quantitative patterns detected in Study 1.

Analytic Strategy

Foucault (1978) argued for discourses of sexuality as imbricated with social arrangements, political movements, public education, and juridico-scientific discourses, among other domains. Arguably the greatest challenge for this sort of multicultural analysis from this perspective of sexuality-in-discursive-context lies in both acknowledging and avoiding a storied history in English and other European-language reporting on Japan that stress the strangeness and otherness of Japanese values, customs and cultural products—particularly those regarding sexuality. Building on the lessons from my brief genealogy in the first chapter of this dissertation, the trick is thus to avoid an oversimplifying binary of “east and west” reflective of culturally reified—and colonizing—approaches to sexuality by recognizing the transnational flow of sexuality and sexual orientation discourses (Binnie, 2004; Chiang & Wong, 2016; Said, 1978, 2004; Turiel, 2002; cf. Foucault, 1978/1984). Such an approach necessitates that I also

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126 This form of cultural othering is not unique to Western writing and thought. The term ōbei (a term comprised of logographic Chinese characters representing Europe and the United States) is frequently deployed in Japan to broadly group together US and European (and, by extension, the English-speaking world) in juxtaposition to presumably unique Japanese cultural values, mores and perspectives.

127 I return to the postcolonial implications of this move in the Discussion (Chapter 7).
recognize similarities between contemporary Japanese society and other societies in Europe and
North America, albeit similarities marked by gradations of difference (Plath, 1992).

I am also mindful, however, of more expansive materialist and postmaterialist
perspectives on sexuality. Deleuze and Guattari (1984, p. 293) have argued that “sexuality is
everywhere”—an assemblage of physical, biological, social and cultural, economic, political or
abstract forces through which bodies interact, sometimes in ways not normally considered sexual
at all (Alldred & Fox, 2015). Due to this complexity, researchers “must strive to understand the
ways in which [sexuality] has helped to organize larger systems of cultural knowledge and thus
to produce the conditions under which human subjects […] created and experienced their own
realities” (Deleuze & Guattari, 1984, p. 335). Applied to the current study, that means
investigating not only how focus group participants draw upon and mobilize essentialist
discourses of sexual orientation, but more specifically how they do so through the materiality of
the Euler diagrams produced in Study 1.

With these discursive and (post)materialist perspectives in mind, I opted for a critical
latent level for tracing a discourse of sexual orientation through the cultural and gendered
contexts of New York City and Tokyo. Unlike a semantic approach focused on participants’
overt statements relating to sexuality, analysis at a latent level enables recognition also of
discursive subtexts participants may not necessarily recognize as such themselves. A thematic
analysis at the latent level entails identifying or examining the underlying ideas, assumptions,
and conceptualizations that are theorized as shaping or informing the semantic content of the
data. As such, this form of thematic analysis comes from a constructionist paradigm (e.g., Burr,
1995), where development of the themes themselves involves interpretative work. The analysis
that is produced is not just description but is already theorized; as such, my goal is less a rich description of the data overall and more a detailed tracing of the work of discourses of sexual orientation in the data. In Braun and Clarke’s (2006) words, such a discursively-oriented thematic analysis “works both to reflect reality and to unpack or unravel the surface of ‘reality’” (p. 81).

For the current theoretically-driven analysis, I adapted the work of narrative psychologists in identifying and explicating four transnational discourses of sexuality constituted on the basis of—or in resistance to—an essentialist binary of heterosexual and homosexual orientations (e.g., Cohler & Hammack, 2007; Davis, 2015; Hammack, Mayers, & Windell, 2013). Of these four what I shall term sexual orientation discourses, the first two are predicated on a logic of heteronormativity. I define the first sexual perversion discourse as representing a corruption of a naturally occurring and normative heterosexuality. Homosexual men are discursively produced and positioned as sick, immoral, sexually debauched, criminal, or otherwise unworthy. Conversely, to the extent they are perceived to warrant description at all as the de facto standard, heterosexual men are discursively produced and positioned as healthy, moral, sexually chaste, law-abiding and worthy. A second heteronormative discourse of gender inversion, I argue, instead concerns male homosexuality as a psychical (or sometimes embodied) inversion of gender; this inversion is presumably evident through homosexual men’s exhibition of mannerisms, behaviors or other characteristics associated exclusively or primarily with heterosexual women.  

128 As such, a discourse of gender inversion derives its meaning from the

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128 As discussed in Chapter 1, a theory of gender inversion was prevalent among European sexologists and advocates around the turn of the twentieth century (Ellis and Symonds, 1897/1936; Hirschfeld, 1914/2000; Ulrichs, 1898/1994; von Krafft-Ebing, 1886/1930). While these ideas largely began falling out of fashion with the introduction of Freud’s (1905/1962) revolutionary conceptual disentanglement of sexual object from sexual aim within the
way essentialist assumptions of binary sexual orientation categories (heterosexual and homosexual) discursively map onto assumptions of binary gender (male and female).

The third and fourth sexual orientation discourses I name are distinguishable in challenging the heteronormative assumptions underlying both sexual perversion and gender inversion discourses. A third minority discourse introduces a model of sexual identity conceptualized in terms of the same-sex desiring individual’s realization of an authentic gay identity. Through the shared struggle of “coming out of the closet”—adopting an openly and specifically gay sexual identity (Clendinen & Nagourney, 1999; Katz, 1976; Hetrick & Martin, 1987)—gay men collectively form a culturally identifiable social minority. A fourth postgay discourse goes further: in not only departing from heteronormative discourses but also troubling assumptions of the seemingly natural and inalterable sorting of human beings by gendered object of sexual attraction, this last discourse entails an explicit rejection of an essentialist logic of binary sexual orientation. I associate this postgay discourse with a postmodern reconceptualization of sexuality in terms of a non-essentialized heterogeneity of sexual identities and subjectivities and an explicit troubling or outright rejection of essentializing categories of sexual orientation (Ward, 2015; Halperin & Traub, 2009; Savin-Williams, 2005). As such, mainstream mental health professions, they arguably live on through so-called “reparative” or “conversion” therapies. These sexual orientation change efforts (or SOCE), while roundly discredited by mental health organizations (e.g., American Psychiatric Association, 1998; American Psychological Association, 2009) and increasingly illegal in the United States (Movement Advancement Project, 2019), purport to change the sexual orientation of a lesbian, gay or bisexual person to that of heterosexual person. Notably, while these practices certainly rely upon a sexual perversion discourse of a corrupted heterosexuality, they often do so through by emphasizing a mapping of binary gender roles and behaviors onto a binary sexual orientation (Shidlo & Schroeder, 2002).

My classification of these four sexual orientation discourses largely maps onto prior theoretical work by narrative psychologists on sexual identity and subjectivity, albeit with important differences. My classification of a minority discourse of sexual orientation maps onto a canonical and largely hegemonic discourse described as Struggle and Success by Cohler and
while itself an essentialist discourse of sexual orientation, a postgay discourse does obtain its distinction through its juxtaposition with these other three heteronormative discourses.

My process in this thematic analysis consisted of four iterative steps (Braun & Clarke, 2006). I began by familiarizing myself with the open-ended survey data from both Japanese and US-based focus groups, focusing specifically on the emotions, thoughts, knowledge and behaviors associated with participants’ mobilization of a discourse of binary sexual orientation. This process of familiarization was greatly aided by my active involvement in the verification of English-language translations of the Japanese data, which involved multiple meetings to discuss culturally specific terminology associated with sexuality. Next, I generated initial codes systematically based on my written memos during the focus group sessions and the separate open-ended survey questions. In a third step, I constructed tentative themes by collating initial codes in a manner informed by my deep immersion in the respective literatures on sexuality, gender and sexual orientation in both US and Japanese cultural contexts. I remained blind to participant age, gender and ethnicity in the US sample during this third phase to minimize any

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Hammack (2007) and as species by Hammack and colleagues (2013). A privileging of sexual subjectivity in a postgay sexual orientation discourse in turn aligns with a discourse of Emancipation as described by Cohler and Hammack (2007) and as subject by Hammack and colleagues (2013). In opting to distinguish between a discourse of sexual perversion and a discourse of gender inversion, however, I depart somewhat from these prior scholars’ classificatory schemes. While both latter discourses rely on a heteronormative logic, I argue that a discourse of gender inversion, in emphasizing culturally rigid notions of gender and gender roles, need not necessarily entail the moralizing and condemnatory stance associated with a discourse of sexual perversion. In this way a discourse of gender inversion departs somewhat from Hammack et al. (2013) description of a sickness discourse historically present in psychology and psychiatry. These and other authors suggest the importance and utility of such a distinction, however, in highlighting the otherwise benevolent intent of many European scholars operating on a model of gender inversion (Brennan & Hegarty, 2009). Indeed, some early psychiatrists distinguished so-called “true inverts” (i.e. men who assume a passive, and therefore heteronormative, role) from “perverts” (i.e. men who assume a penetrative role antithetical to heteronormative understanding) (e.g., Terman & Miles, 1936).
implicit bias on my part in the construction of these tentative themes. Finally, I revised and refined the specifics of each theme to best address the empirical patterns detected from Study 1 as part of an integrated higher-order analysis in answering the research questions guiding these analyses.

Throughout this iterative coding process, I made special note of the ways these discourses of sexual orientation were voiced, whether emphatically, ambivalently or through resistance. As instances of silence are also an integral part of the strategies that underlie and permeate discourses (Foucault, 1978/1984), I also made note of the circumstances in which participants did not mobilize one or more discourse of sexual orientation—particularly when that pattern of mobilization differed across cultural and gendered contexts. Cultivating my own sensitivity to—and interrogating my role in—the transnational flow of discourses of sexual orientation also demanded my recognition of intersubjectivity in the production of these focus group data (Teo, 2015). To aid in this reflexive process, I prepared memos documenting my own initial responses—whether of agreement, dismissal, or confusion—to the lay theories shared by participants in their interpretations of the Euler diagrams. My cultural positionality as a gay white man raised and educated in the United States is informed by more than six years immersed in a Japanese cultural and linguistic context; this experience, I argue, affords me a certain degree of knowledgeability regarding both US and Japanese cultural contexts. Despite my familiarity with a Japanese cultural and linguistic context, however, I can lay no claim to a native-level understanding of it and have consequently taken particular care in this analysis to trouble my own knowledge assumptions in interpreting the Japanese responses through consultation with faculty and graduate student colleagues in Japan.

The following analysis should be understood as representing targeted, if theoretically
rich, “snapshots” of the often complex ways cultural context and gender informed participants’ mobilization of sexual orientation discourses. Importantly, I have not attempted to provide a “grand meta-narrative” of sexual orientation in the US or Japan; indeed, any attempt at such comprehensive, culturally isolated histories would be extremely problematic if not outright foolhardy from a critical perspective (Weeks, 1998). I am however also mindful of Sedgwick’s (1990) admonition against thinking of “sexuality as we know it today” as somehow completely distinct from and utterly superseding former regimes of knowledge. As such, where appropriate I have engaged in some targeted genealogical work to help both US and Japanese readers place my analysis of these exemplars within broader cultural and historical contexts. Throughout, however, my primary focus concerns how these “snapshots” enable a greater—and, I argue, “good enough” (Luttrell, 2010)—interpretive capacity for answering the two research questions guiding this analysis.

**Sexual Orientation Beliefs in the US and Japan: Three Key Themes**

I have constructed three themes representing the culturally complex and distinctive ways these young women and men in Tokyo and New York City mobilized discourses of sexual orientation in their interpretation of the Euler diagrams. Understanding participants’ mobilization of these discourses, I argue, illuminates the role of beliefs about sexual orientation in each context, as well as the inductive potential associated with the categories of heterosexual and homosexual man. In the first theme I identify the relative extent to which US and Japanese participants mobilized the four discourses of sexual orientation. I next analyzed the ways participants’ selective mobilization of these discourses of sexual orientation were associated with the reproduction of dominant ideologies of cultural identity. Finally, I explicate how these
Ideologies presented particular cultural and gendered challenges in terms of managing the individual expression of sexuality (See Figure 14 for a thematic map of these three themes.) Together, these three themes provide insight into the ways these sexual orientation discourses are culturally understood; the work of those discourses within larger cultural contexts in the US and Japan; and sites of resistance to specific sexual orientation discourses within each context. My primary goal in this section is to pry these three themes apart long enough to explicate them; having done so, I then allow them to “snap back” together in addressing the two guiding research questions in the concluding section (Tolman, multiple lectures and discussions).

Figure 14.
Final thematic map, showing three main themes and culturally specific subthemes
I have chosen to structure these themes through a standard approach of providing long exemplar quotes, one each from the US and Japanese focus groups for each theme. This bifurcated approach allows me to provide an analysis of each cultural and gendered context as its own “universe of discourse.” I have “infiltrated” these texts (Riessman, 2001) by constructing long exemplars representing composites constructed from participants’ multiple open-ended responses; I indicate my acts of compositing through the use of bracketed ellipses. As part of this process I also present a denaturalized transcription (Bucholtz, 2000; Oliver, Serovich, & Mason, 2005) of participants’ responses to clarify minor grammatical or spelling errors in a way that facilitates readability. I also supplement my analysis with responses from additional participants where relevant or when explicating diverse perspectives within a theme. For each theme, I begin with the US context first, followed by comparative analysis of Japanese context. I felt this comparative presentational choice would render this analysis more accessible to readers immersed in a US cultural context for whom a Japanese context may be unfamiliar. I have used English transliterations of certain Japanese terms when attempting to highlight culturally specific meanings and contexts. English translations of key terms in my analysis of the Japanese exemplars is meant to conversely relay the transnational character of certain sexual orientation discourses. In the interests of transparency all long exemplar and supplemental Japanese responses are accompanied by original Japanese language responses, either in the main text or in footnotes. Finally, all reported names are pseudonyms; I include demographic information on participant age, gender, ethnicity and cultural context for each respondent. As no US participants identified as Japanese, Japanese ethnicity reported here should be read as equivalent to Japanese cultural context.

**Making meaning of sexual orientation categories.** If sexual orientation discourses
are understood as mobilized within culturally distinct universes of discourse, then it is instructive to begin my thematic analysis by exploring the ways in which participants in New York City and Tokyo made meaning of sexual orientation categories through sexual perversion, gender inversion, minority and postgay sexual orientation discourses. As such, this first theme concerns the ways in which these sexual orientation discourses were rendered intelligible and reproduced through other culturally salient discourses. I begin with Ebony, a 21-year-old black woman in New York City, who draws upon multiple sexual orientation discourses in framing homosexuality and heterosexuality. While other focus group participants in New York City wove in and out of these sexual orientation discourses, Ebony was unusually eloquent in naming and navigating tensions at the interstices of these multiply imbricated discourses. Ebony writes:

I think that generally people in the United States are enforced with so many stereotypes and biases of what homosexuality is, that they seem to have a pretty narrow-minded view of it (speaking generally). The media has a lot to do with it. The media often attempts to display two drastic sides of the spectrum when it comes to homosexuality. It is either a homosexual who is promiscuous and stereotypically behaves in the sex opposite of their own or a homosexual who is shy and borderline suicidal due to all the prejudice and discrimination they experience from others. As a result, generally, Americans have these two views of homosexuality that is not cohesive. [...] I do not think there is a way in which homosexuals act or look. That, I believe is completely social. Thus, simply because a young boy wants to play dress up in his mom's heels does not mean that he will grow up to be gay [...] I noticed that the stereotypes of gender and sexuality played a role in the maps. Things associated with heterosexuals (i.e., baseball player) were more prominent in the “Mary” map. However, in the “Mark” map, it seemed as though things like sexual were more prominent.

Several distinct, multiply imbricated sexual orientation discourses are discernable from Ebony's rich description of the ways “people in the United States are enforced [sic] with so many stereotypes and biases” about sexual orientation and the category of homosexual man in particular. In a cultural context where sexuality is already deemed dangerous, the media specter
of “a homosexual who is promiscuous” nevertheless stands out as particularly deviant, although Ebony does not explore the implied overtones of moral exclusion in this *sexual perversion* framing of promiscuous same-sex sexuality. I discerned mobilization of a second discourse in her description of a homosexual person who “stereotypically behaves in the sex opposite of their own,” a framing hewing closely to a heteronormative discourse of *gender inversion*. While Ebony’s framing is explicitly gender neutral, I infer this assessment to specifically reference stereotypical depictions of homosexual men, given her focus on men throughout her response. In explicitly associating athleticism, “(i.e., baseball player),” with male heterosexuality, through an essentialist logic of binary sexual orientation underpinning a gender inversion discourse Ebony strongly implies a lack of athleticism to be associated with male homosexuality. Lack of athletic prowess in turn further associates male homosexuality, through a gender binary, with femininity.

Ebony also implicates a third *minority* discourse of “a homosexual who is shy and borderline suicidal”—a trope she associated with “the media” and one described elsewhere as that of the “forlorn gay” in the news media (Hegarty, 2018) or the decades-old “bury your gays” trope in popular entertainment (GLAAD Media Institute, 2018a). Her particular description here echoes sensationalized reports of adolescent and young adult suicides in the news media at that time in which the victims were explicitly labeled as young gay men and teens. Presumably a consequence of a homophobic society marked by “prejudice and discrimination,” this media trope, while not explicitly and heteronormatively othering as the first two discourses were,

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130 At the time of data collection, one still much-discussed incident involved the 2010 suicide of Rutgers University undergraduate student Tyler Clementi after webcam footage of his sexual encounters with other men were shared without his knowledge by his roommate through social media. While not the first such reported suicide during that period (Hubbard, 2010), this particular incident received broad nationwide media coverage and sparked a long-term national conversation surrounding the topic of cyberbullying and public “outing” (Parker, 2012).
nevertheless reproduces a cultural image of a discriminated-against minority group—as well as an essentialist logic of discrete sexual orientation categories.

In associating all three of these discourses with “a pretty narrow-minded view of [homosexuality],” Ebony positions herself within a fourth postgay discourse wherein the “way[s] in which homosexuals act or look” is understood to be “completely social.” Through this fourth discursive voice she especially singles out and troubles a discourse of gender inversion as resting on what she views to be inaccurate gender stereotypes, arguing that “simply because a young boy wants to play dress up in his mom's heels does not mean that he will grow up to be gay.” Indeed, a gender inversion discourse was among the most frequently deconstructed by US focus group participants. Such deconstruction was not limited to gender stereotypes, however: another point of deconstruction concerned recognition of an inequitable gender hierarchy. As another participant put it, “I find that society does not place as much of a taboo on [sexual] behavior when it is between two females rather than two males” (woman, 21, Latina). Lower social tolerance for same-sex desiring men relative to same-sex desiring women, this participant intimates, portends particularly harsh social consequences for men who deviate from a heteronormative script. Together, the ubiquity of postgay discursive deconstructions of a gender inversion discourse in participants’ responses suggest the tenacity of this latter discourse—and, by extension, a gender hierarchy and gender norms more broadly in New York City.

Arguably the most striking aspect of Ebony’s response concerns her attempts to make meaning out of a discursive cacophony resulting from the mutual imbrication of these not altogether compatible sexual orientation discourses. She insightfully concludes that these four discourses, representing “drastic sides of the spectrum” in terms of their representation in the media, are ultimately “not cohesive.” She intuits a heterogeneity of sexual orientation discourses
all vying for dominance in a culturally heterogeneous New York City and the United States more broadly. Ebony clearly demarcates heteronormative othering (sexual perversion and gender inversion) and minoritizing (minority) discourses as one such site of tension. And while I initially found Ebony’s linking of gender inversion and sexual perversion discourses somewhat jarring—each discourse relying, as I have previously argued, on different core assumptions—her knowledge that incompatibilities exist at all powerfully illustrates the discursive challenges facing these participants in attempting to make meaning of sexual orientation categories. That all three sexual orientation discourses can be viewed as cohesive from her claimed postgay discursive perspective—in terms of all three jointly reproducing an essentialist notion of binary sexual orientation—powerfully suggests Ebony’s embrace of a postgay discourse may be more ambivalent than her response might initially suggest.

Ebony further implicates the mobilization of these sexual orientation discourses and associated “stereotypes of gender and sexuality” as having “played a role” in Study 1 participants’ material construction of the Euler diagrams. She suggests that “[t]hings associated with heterosexuals (i.e., baseball player) were more prominent in the “Mary” map,” in a clear nod to Study 1 participants’ mobilization of a gender inversion discourse, while “in the ‘Mark’ map, it seemed as though things like sexual were more prominent,” more in line with a sexual perversion discourse in which male homosexual behavior is accorded additional scrutiny above and beyond a powerful sexual desire associated with traditional masculinity for men more generally. Other participants drew upon a sexual perversion discourse in their interpretation of the romantic love circle as well. One focus groups participant perceived that “the romantic circles were typically larger in the maps which involved Mary,” explaining that “[h]eterosexual relationships are thought of as more dynamic as in it is composed of emotions, sexual desires,
spirituality, etc.” (woman, 21, black). That is, from a heteronormative stance—one implicating either or both a sexual perversion or gender inversion discourse—the possibility of a more nuanced and complex conceptualization of the social category homosexual man is effectively foreclosed.

If the New York City context was associated with a tense overlapping of these four distinct discourses of sexual orientation, the Japanese focus group responses were dominated by one: gender inversion. More accurately, I did not hear sexual perversion, minority and postgay discourses evident in the New York sample as often in the Japanese responses, and when voiced they were heavily filtered through a discourse of gender inversion. Such was the strength of this sexual orientation discourse that none of the participants explicitly voiced resistance to it, as Ebony and several other US participants did. Notably, Japanese participants’ mobilization of a gender inversion discourse of sexual orientation was evident across multiple domains. I explicate the at times ambivalent mobilization of a gender inversion discourse in three such domains in the response of Rie, a 21-year-old Japanese woman, who describes a conflation of homosexuality with Gender Identity Disorder (GID); the association of gay men with cross-dressing onē (pronounced oh-nay) figures in popular media; and the ideological policing of the effeminate okama. Rie writes:

金八先生のドラマで性同一性障害というものを初めて知った。その後大学に入ってから、ホモとは男同士の同性愛者ではないことを知った。[…] ゲイ・レズについての見方というのはやはりメディアからの影響が大きいと思う。オネエ系の人たちとゲイやレズビアンは混同されているように感じる。[…] もっと言えば、ゲイのことを「オカマ」という言葉を小学生のころから耳にしてる。学校の先生も使っていた気がする。[…] 日本人のホモセクチャリティについての発言はグレーゾーンではないかと思う。最近同性愛というのは認められるべきだという風潮があるが、昔からオカマなどとバカにされてきたため、やはり、実際に受け止めることは難しいと思
I first learned about Gender Identity Disorder from the TV drama *Kinpachi-Sensei*. After that, from the time I entered university I learned that *homo* does not refer to homosexual men. [...] I think that views toward gays/lez are heavily influenced by the media. I feel that confusion exists between *one* people and gays or lesbians. [...] Going even further back in time, I heard the word “*okama*” for gay things beginning in elementary school. I feel like my school teachers also used it. [...] In my view, comments made by Japanese people with respect to homosexuality exist inside of a gray zone. While the general trend today is toward acceptance, I think that this is in fact difficult to achieve because of words like *okama* and the way that such persons have been ridiculed in the past. [...] I understand that we shouldn’t use the word gay, but I sometimes laugh at jokes made about it. This is because I think they are funny. There’s a part of me that wants to ridicule gay [men].

When asked about the terms *dōseiai* and *homosekushuariti* (same-sex love and homosexuality, respectively), I was struck initially by the way Rie immediately recounts her first encounter with Gender Identity Disorder (GID). For Rie and other Japanese focus group participants, the interchangeability of the two terms GID and homosexuality—frequent to the point of near hegemonic ubiquity in this sample—reflected a propensity to conflate sexual orientation and gender identity to a far greater degree than their US peers. While my positionality as a both a US-educated critical psychologist and an American exposed to this conflation during several years spent in Japan had prepared me to listen for this gender inversion discourse, I nevertheless felt my initial response to the sheer power of this discourse in these Japanese responses to also betray my own discomfort in being confronted by a discourse I did not personally endorse. Understanding this, I sought throughout my analysis of these Japanese responses to carefully interrogate my assumptions, training and initial visceral desire to “close
my ears” to this sexual orientation discourse.

Rie’s citing of the impact of the popular television drama, *Kinpachi-Sensei*, during her childhood supports this interpretation of conflation—a program primarily notable for its culturally groundbreaking and widely-discussed sympathetic portrayal of a gender nonconforming character.131 This conflation is further solidified with what to US readers might appear to be Rie’s counterintuitive conclusion, “from the time I entered university I learned that *homo* does not refer to homosexual men.” Her prior association of the term *homo* not with gay men but rather gender nonconforming men, something she didn’t differentiate between until exposure to more knowledge in university, indicates the power of this conflation. Rie’s experience was broadly representative of a culturally pervasive mobilization of a gender inversion discourse. As another focus group participant explained, “it might be that you are attracted to persons of the same sex because your gender identity does not match your physical sex” (man, 24, Japanese).132 While this is not to claim that Japanese respondents perceived no

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131 In 2001, the popular television program *San-nen B Gumi no Kinpachi Sensei* (*Mr. Kinpachi, Teacher from Class 3B*), a long-running drama series dealing with usual day-to-day life in a junior-high school that started in 1979, featured a female-assigned high school student who publicly came out as a transgender male. This fictional drama was one of a series of cultural touchstone events which further disseminated a new GID model of feminized men and has by far become the most dominant of these discourses, and the most socially recognized (Dale, 2012). So successful was this marketing of GID that a range of gender nonconforming as well as non-heterosexual identities have been subsumed by it (Dale, 2019). Consequently, this discourse of GID largely displaced prior discourses associated with the so-called *gei būmu* (*Gay Boom*) in the 1990s (Ishida & Murakami, 2006). Since then, gender nonconformity issues are often covered on variety shows and news programs in a sympathetic manner, but almost always using the terminology of GID. This cultural discourse of GID remains popular despite recent adoption by many Japanese psychiatrists of a diagnostic category of gender dysphoria in the DSM-V (Kuroki et al., 2016). This conflation may also have important consequences for sexual identity development, with some scholars suggesting that young Japanese people who are grappling with their own sexual orientation may wonder to themselves if a sex change is therefore necessary (Kazama & Kawaguchi, 2010).

132 『自分の性自認が身体的な性とは逆であるために同性に魅力を感じるかもしれない。』
distinctions between homosexuality and GID, and consequently sexual orientation and gender identity, it does further evidence the ubiquity and dominance of a gender inversion discourse of sexual orientation.

Conflation with GID was not the only way a gender inversion discourse was mobilized by Rie and her peers in making meaning of the category homosexual man. Much like their US peers, Rie and other Japanese respondents concluded that “views toward gays/lez are heavily influenced by the media.” As implied in Rie’s referencing of the Kinpachi-Sensei television program, the domain of popular media is heavily marked by a heteronormative logic of gender inversion. Nearly all Japanese participants referenced the ubiquity of one media depiction in particular: the onē tarento. Onē, literally meaning “big sister,” are mostly male-identified tarento (entertainers and television celebrities) known for performing cross-gender and affecting a camp way of speaking and behaving for comedic effect. Often featured in daytime variety programs, onē figures reflect a centuries-old history of cross-dressing in Japanese entertainment (McLelland, 2000a; Phlugfelder, 1999). In describing the ubiquity of these depictions, another participant suggested that “onē characters are treated as comedy figures on television and are held up as typical examples of homosexuals” (woman, 21, Japanese). As images of “ordinary

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133 The term rezu (literally, “lez”) in this context is telling, as the preferred shortened form of the transliterated term rezubian (lesbian) among communities of same-sex desiring women in Japan is bian. This distinction stems from the larger culture’s co-opting of lez as a term of contempt, not unlike the cultural nuance attached to the derogatory terms “lezzie” and “lesbo” in the US. In Japan the term rezu additionally carries a nuance of sexual objectification for the benefit of heterosexual consumption (Yuko Higashi, personal communication).

134 It is notable that the only depiction of a transgender male provided by these participants was Rie’s reference to the drama Kinpachi-Sensei, while onē figures were associated exclusively by participants with comedy and variety programs. Dale (2012) has also noted a strong association in Japanese media between drama and female-to-male (FtM) figures and variety/comedy with male-to-female (MtF) figures.

135 『テレビなどではオネ系がお笑いとして扱われ、同性愛者 [...] の典型のように利用されていること。』
looking’ homosexual men doing ordinary [read: masculine] things and living ordinary [read: heteronormative] lives are conspicuously absent in Japanese media” (McLelland, 2000a, p. 58), the ubiquitous, gender-inverted onē character is left as an almost exclusive representation of male homosexuality for many Japanese—a simultaneous recognition and erasure of homosexuality.¹³⁶

Outside the socially tolerated domains of GID and entertainment, however, participants described homosexuality as being met with contempt and ridicule. Rie “heard the word ‘okama’ for gay things beginning in elementary school,” where the term okama roughly translates to “fairy” or “fag,” inclusive of its attendant gender inversion stereotypes of effeminacy and intertwined with contempt. Not limited to her classmates, she recalls that “my school teachers also used [the term okama],” suggesting of the pervasiveness, if not tacit institutional approval of, the ostracism and policing of male homosexuality through its association with a derogated femininity. I was surprised, however, when Rie shared, “I understand that we should not use the word gay.” In associating the term “gay,” along with okama and homo, as an unacceptable and discriminatory term, I was left wondering just what term(s) might be admissible for her, a problem I interpret as evidence of her relative lack of discursive engagement with the topic of homosexuality.¹³⁷

¹³⁶ This conflation of male onē figures with homosexuality is not entirely without justification. While a few onē performers have publicly discussed their transgender identity, such as the entertainer Haruna Ai, many onē performers such as the extraordinarily popular Matsuko Deluxe publicly identify as gay men. A long historical association between cross-dressing and the entertainment world suggests however that not all cross-dressed or cross-gendered individuals in that world are understood to be homosexual (McLelland, 2000a). Nevertheless, onē entertainers remain the most common representation of homosexuality in Japan to such an extent that even researchers assessing attitudes toward homosexuality have tailored survey items around references to them on the premise that these characters are perhaps the only accessible example for the general population (e.g., Lee et al., 2010).

¹³⁷ The term gei (gay) is widely used within LGBT communities in Japan as an affirmational
gay]. This is because I think they are funny. There’s a part of me that wants to ridicule gays.”

Rie’s ambivalent desire to “ridicule”—to position gay men as a caricature of failed heterosexuality and masculinity—illuminates the precarity of these heteronormative discourses of binary sexual orientation through a constant need to police a failure to enact heterosexuality. This view of policing in Japan was shared by Rie’s focus group peers: “I also saw people saying to others, “Hey, are you guys gay?” if they were really close with someone of the same sex or had someone comment even slightly favorably on their appearance” (man, 20, Japanese).138

Apart from domains of GID or the entertainment world of onē figures—socially tolerated and even celebrated depictions that ultimately support institutional heterosexuality—heteronormatively unscripted enactments were described in terms of strict policing.

Nevertheless, these seemingly disparate cultural touchstones of Gender Identity Disorder, onē tarento, and policed okama are multiply imbricated through Japanese participants’ mobilization of a gender inversion discourse.

Participants’ mobilization of a discourse of gender inversion across these domains was not without tension, however. Rie evidenced ambivalent engagement with this sexual orientation discourse when sharing her concern that society more broadly exhibited “confusion […] between onē people and gays or lesbians.” A few focus group participants echoed this sentiment through a more resistant voice: “Some gay men don’t dress up as women, and some people are not funny like those onē characters. However, most people in society who watch such shows have a

138 『また少しでも同性の外見を褒めたり、仲良くしていたりするとふざけてお前らゲイなのかよとかからかっている場面を見かけることもあった。』
complete misunderstanding of the situation” (man, 22, Japanese). That this degree of explicit resistance stood out in contrast to the pervasiveness of how most other participants mobilized a gender inversion discourse in their responses indicates to me, however, that this sexual orientation discourse remains a dominant factor in many young Japanese adults’ understanding of sexual orientation categories.

Yet even in these few cases of resistance, I remain unclear as to which sexual orientation discourse these participants were mobilizing. Rie reflected this uncertainty in suggesting that “comments made by Japanese people with respect to homosexuality exist inside of a gray zone.” She goes on to speculate that this “gray zone” might entail difficulty in achieving societal “acceptance […] because of words like okama and the way that such persons have been ridiculed in the past,” a minority discourse-voiced critique of both sexual perversions and, given the full context of her response, gender inversion discourses. From Rie’s minority discursive perspective, acceptance must be bestowed by a dominant, heteronormative society willing to leave behind these othering understandings of sexual orientation. From the foregoing analysis, however, I am left wondering how the ways these interweaving sexual orientation discourses have and continue to inhibit such a societal transformation in Japan—that is, what constitutes and reproduces this “gray zone.” I venture one answer to this question in analyzing the following theme.

Sexual orientation discourses and cultural ideologies. The next theme I explore concerns how the ways participants mobilized these sexual orientation discourses helped me identify the presence of culturally-specific ideologies: an ideology of diversity in New York City.
and an ideology of *sameness* in Tokyo—as well as the ways those ideologies functioned discursively in participants’ mobilization of the four sexual orientation discourses. I structure my analysis of a New York City cultural context around the response of Alexa, a 23-year-old white woman. Her response is historically situated in early 2015, just months prior to the landmark US Supreme Court ruling in *Obergefell v. Hodges* in which same-sex marriages were legally recognized nationwide for the first time. Alexa was representative of the other New York participants in describing a cultural ideology of *diversity*: of New York City as uniquely embracing of sexual and other forms of diversity, defined through a labeling of and resistance to homophobic and discriminatory depictions of homosexuality and an affirmation of the moral equivalence of homosexual and heterosexual identities and the individual expression of an authentic sexuality. I demonstrate how participants selectively mobilized the four sexual orientation discourses in service of this cultural ideology of diversity in ways that favored the reproduction of a discourse of binary sexual orientation. Alexa writes:

Most of these [Study 1 participants] currently live in NYC, so they all probably find homosexuality to be a normal thing. So, the people reading the Mark story had the idea that being gay is different, but not wrong. They probably thought that being gay was more worrisome than being straight due to how America handles gayness. If people grew up in a totally different part of America, their views of homosexuality would be more aggressive. Also, people are biased, no one wants to come off being a homophobe, so that most likely had some sort of impact on the [identity] circles.

Alexa presumes that Study 1 participants, being New York City residents, “probably find homosexuality to be a normal thing.” What “normal” means for Alexa is quickly elucidated: “being gay is different, but not wrong.” This cultural understanding of New York City as a cosmopolitan, liberal space synonymous with finding homosexuality to be normal was a sentiment shared by several focus group participants, across ethnicities and gender, in relation to
the city and in particular to their own age cohort. This shared presumption wasn’t entirely unfounded either, as evidenced by the large percentage of this sample indicating personal acquaintances with gay men. Most focus group participants similarly both acknowledged and affirmed essentialist categories of heterosexual and homosexual while rejecting the idea that there is anything “wrong” with a gay identity (i.e., sexual perversion discourse). Together with Alexa’s equation of the “Mark story” (the SSA experimental condition) with “being gay,” I interpret a broadly shared and unambiguous mobilization of a minority sexual orientation discourse among these participants. Participants not only attributed mobilization of discrete sexual orientation categories of “straight” and “gay” to the Study 1 participants before them, but also emphatically engaged this discourse themselves in their interpretation of the Euler diagrams.

That is, participants mobilized an essentialist minority sexual orientation discourse in associating New York City with an affirmation of both heterosexual and homosexual orientations—and in explicit contrast with an intolerant heteronormative discourse presumed to dominate in other areas of the United States. Through this mobilization of a minority discourse in tandem with a cultural ideology of diversity that I discerned in New York City, Alexa sees how some respondents viewed “being gay [as] more worrisome than being straight due to how America handles gayness.” There are two tacit assumptions Alexa is sharing about the discursive context I share with her. First, she assumes that I have a sense of why “being gay [is] more worrisome” as a result of “how America handles gayness.” Second, she assumes that “New York City” is culturally and ideologically distinct from a narrative she associates with “America.” Alexa appears to confirm this interpretive distinction: “If people grew up in a totally different part of America, their views of homosexuality would be more aggressive.” Her certainty of the outcome of growing up outside the inclusive and affirming cultural context she assumes to define
New York City struck me insofar as her certainty suggested to me the strength of this cultural ideology of diversity. Alexa’s certainty was broadly echoed by several other respondents, who associated an America beyond New York City specifically with “the South.” While Alexa does not provide further information on the source of such aggression, other participants actively resisted a sexual perversion discourse in describing religious intolerance and moral exclusion of homosexuality in such regions: “in the south where Catholicism and Christianity are more predominant there is the chance that homosexuality is still seen as something bad and as a sin” (woman, 23, Latina). I interpret evocations of “the South” then as shorthand not so much of a specific geographic region or even secular/religious split—after all, “Catholicism and Christianity” are prominently represented throughout the communities comprising New York City—but rather more generally a discursive divide these participants intuited as necessary for the definition and function of a cultural ideology of diversity through its linkage with a minority discourse and resistance to a sexual perversion discourse.

Mobilizing a cultural discourse of diversity linked to a minority discourse also introduced tension for participants who also sought to mobilize a postgay discourse, however. When asked to define what homosexuality or gay meant to them personally, many focus group participants defaulted immediately to a minority discourse in highlighting their own acceptance, or the ethical achievement of avoiding discrimination against homosexuality in New York, and, by extension, propounding the legitimacy and moral equivalency of both heterosexual and homosexual orientations. In claiming that “people are biased,” however, Alexa implies that a cultural ideology of diversity is precarious and in need of constant reproduction. A major consequence of engaging this cultural discourse of diversity is thus that “no one wants to come off being a homophobe.” That is, she is describing an ever-present threat posed by slipping into
the socially perilous position—particularly given her at an urban public university in New York City—of being associated with homophobia. Another participant highlights the social desirability of a cultural ideology of diversity more clearly: “some participants might have felt the need to display socially accepted attitudes such as being supportive of homosexuality” (woman, 23, Latina). Thus, while a cultural ideology of diversity obtains its meaning in part through its association with a minority sexual orientation discourse, it becomes discursively difficult to imagine a legitimate basis for critiquing essentialist sexual orientation categories that would not position oneself as “a homophobe”—thereby effectively silencing a postgay discourse. This discursive pressure, according to Alexa, also likely had material consequences for the Euler diagrams, of “some sort of impact on the [identity] circles.” Although she does not speculate further, I interpret her response as suggesting a foreclosing of participants’ ability to freely mobilize sexual discourses outside of a minority discourse in the construction of their diagrams; as such, the act of mobilizing a cultural ideology of diversity meant also reproducing essentialist categories of sexual orientation.

If a cultural ideology of diversity described by US participants rests on a distinction between a narrative of a diverse New York City and a homophobic America, then the dominant cultural ideology I interpreted in the Japanese responses might best be described as a distinction between a narrative of a monocultural Japan and all things non-Japanese. In contrast to the compulsion to reaffirm the value of both heterosexual and homosexual orientation categories through a cultural discourse of diversity among US focus group participants, the responses of the Japanese focus groups collectively describe instead a cultural ideology of dōitsusei (roughly, “sameness”) that effectively silences and renders invisible gay people in Japan while organizing a heteronormative discourse of sexual orientation through a privileging of social order over
individual needs. I demonstrate this cultural ideology of *sameness* through the response of Natsuko, a 20-year-old Japanese woman in the Tokyo metropolitan area, who somewhat ambivalently mobilizes heteronormative discourses of sexual orientation in positioning heterosexuality and homosexuality as mapped onto, respectively, the inside and outside of a presumably monocultural Japanese society. I also highlight the ways discursive mobilization of a cultural ideology of *sameness* works in tandem with essentialist sexual orientation discourses to effectively position heterosexuality as authentically Japanese while othering homosexuality as somehow non-Japanese. Natsuko writes:

 Especially because of Japan’s social emphasis upon “*dōitsusei,*” people tend to exclude others who are different. For this reason, [homosexuality] tends to be criticized more [here] than in other countries. […] I interpreted that [Taro’s] love for the same sex meant that he was unable to share his feelings with anyone else, and that this must have been very difficult for him to talk about, etc. I believe that this largely reflects my own bias that homosexuality is *itan* and hard to talk about, and that it is difficult to obtain others’ understanding. […] Such people aren’t around me and so it feels like something from another dimension. Also, the fact that same-sex marriage is not legally allowed in Japan contributes to the difficulties in coming out, as some might mistakenly think that such people aren’t around them.

 Natsuko grounds her interpretation of the diagrams first and foremost in her understanding of “Japan’s social emphasis” on “excluding others who are different.” While I was immediately struck by the clear dichotomy of Japanese and “others,” I cannot claim to have been
surprised. My repeated encounters with variations on this sentiment during my time in Japan is perhaps best exemplified by reference to the well-known Japanese proverb, *deru kugi wa utareru* (the nail that sticks out gets hammered down). Tellingly, in firmly positioning homosexuality with the “others,” Natsuko implicitly associated an unspoken heterosexuality with being Japanese. Yet understanding the broader implications of Natsuko’s privileging of this cultural othering in Japan for discourses of sexual orientation requires first understanding the juxtaposition of two key terms in Natsuko’s response: *dōitsusei* and *itan*. It is no coincidence that these are the two terms I opted not to translate into English in the exemplar above, for both terms carry such culturally inflected meanings that a simple translation would fail to capture the nuance Natsuko attempts to convey through them. This first term, *dōitsusei*, usually translated as the generic English term “identity,” more accurately connotates a shared cultural and ethnic identity, or “sameness,” as Japanese. The second term, *itan*, usually translated as “heretic,” conversely lacks the strong religious connotations associated with this English term; consequently, the English language connotations of term “heretic” would be unintelligible to many Japanese people in this instance as an association between homosexuality and a concept of sin is largely absent in Japan (Kisala, 1999; Roemer, 2009).140 In this usage, then, the term *itan* indicates

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140 US readers may wonder more generally at the absence of religiosity in my analysis of cultural beliefs in Japan. This absence was not due to exclusion, as religiosity did not figure into the responses from this sample. This absence is not altogether surprising, however, as only a small percentage of Japanese people claim religious affiliation (Roemer, 2009). This is not to claim that forms of spirituality or organized religion do not exist in Japan, however. While surveys indicate that Japanese people broadly claim to be non-religious, polytheistic Shinto and Buddhist traditions are claimed by many Japanese (Kisala, 1999). That is, rather than individual belief, religiosity in Japan might more accurately be understood to entail cultural practices around ethics and social functions (e.g., household shrines to ancestors). This spiritual pluralism poses interpretive challenges to monotheistic models dominant in Western nations (Dolce, 2015), particularly in terms of homosexuality. Unlike dominant Western religious organizations and sects in which homophobia seems institutionalized, in Japan the only major issue concerns the continuation of the family through heterosexual marriage (Ryang, 2006).
something like a betrayal of dōitsusei sameness—a betrayal of what it means to be Japanese.

Applied to Natsuko’s response, homosexuality may thus be conceptualized as a betrayal of Japanese-ness—an inappropriate privileging of an individual, non-normative homosexuality antithetical to a shared social, ethnic—and heterosexual—identity presumed to define and connect all Japanese people. Through the lens of this cultural ideology of sameness, I understand that, in her contention that homosexuality “tends to be criticized more [here] than in other countries,” Natsuko describes an othering of homosexuality made possible through a discursive positioning of homosexuality as a betrayal of Japanese-ness. Homosexuality is thus written out of the story of what it is to be Japanese; Natsuko’s acts of othering, erasure and silence affirm the normative role of heterosexuality through her invocation of a cultural ideology of sameness. Homosexuality may thus be understood as “heretical” insofar as it suggests an alternative way of being in a cultural context marked by a powerful discourse of cultural homogeneity. This mapping of homosexuality and heterosexuality onto, respectively, other and Japanese thus not only reproduces discourses deriving their meaning from an essentialist understanding of sexual orientation categories but also discursively erases the category homosexual man across the domains of Japanese life.

Japanese language makes use of a phonetic katakana syllabary to represent loanwords originating outside native cultural context. Through the use of this syllabary, cultural reproduction of a minority discourse of sexual orientation categories and identities—through phonetic transliterations of words such as gei (gay), aidentiti (identity) and sekushariti (sexuality)—is linguistically marked as foreign in origin. Valentine (1997) argued, however, that the use of these “foreign loan terms,” as they are frequently depicted, does not imply that contemporary Japanese people view these terms as mere imports. Indeed, Hogan (2003) has argued that use of such terms discursively serves as both a euphemism to avoid taboo conversation topics as well as diminish guilt around doing so. While this strategic positioning of language for describing homosexuality in Japan may well indicate a hybridization of sexual orientation discourses (see Martin, 1996; Tan, 2001), their use in the broader society has often been met with confusion (Brasor, 2016).
Natsuko attempts on the one hand to diagnose structural issues as the cause of this erasure. As she argues it, “the fact that same-sex marriage is not legally allowed in Japan contributes to the difficulties in coming out” — issues that while topical are, she has already intimated, of little personal relevance to her. She also implies that the invisibility of gay people stems from a perceived difficulty in openly broaching the topic of homosexuality, and sexual orientation more generally. Missing from her complex evaluation is her own role in discursively rendering invisible gay people and homosexuality. This lack of awareness on her part is powerfully demonstrated by juxtaposing her assertion that “[s]uch people aren’t around me” with her apparently incongruous observation that “some [people] might mistakenly think that such people aren’t around them.” I note the powerful dissonance implied through this juxtaposition, as well as Natsuko’s strategy for navigating it. While she believes homosexual people “aren’t around me,” when shifting away from this personal perspective to that of a more abstracted Japanese society it becomes possible for Natsuko, through a cultural discourse of sameness, to unproblematically assume homosexual people are “out there” at the edges of Japanese society. In this way Natsuko can mobilize essentialist discourses of sexual orientation abstractly without having to acknowledge or confront it at a potentially interpersonal level in her own life. That is, if homosexuality is consequently “hard to talk about” at an immediate, interpersonal level for Natusko, a legitimate discursive space appears to be carved out for discussion in the abstract—yet in ways that reproduce the very conditions under which discourse at the interpersonal level remains silenced.

This discursive mapping of sexual orientation categories through a cultural ideology of sameness helped me decipher why homosexuality was “like something from another dimension” for Natsuko and several other respondents, as well as how a silencing of sexual orientation
discourses may have materially affected production of the diagrams. One participant explicitly made this link between erasure and romantic love, surmising that “the ‘romantic’ circle was drawn larger in the opposite-sex [condition] than in the same-sex [condition]. This was likely because the difficulty in imagining homosexuality […] made it hard to link [the romantic love circle] with the idea of being ‘romantic’” (woman, 20, Japanese).\textsuperscript{142} As another participant reasoned in the relation of this erasure to sexual desire, “because people stand out if they are interested sexually in people of the same sex, and because there is an interest placed upon peoples’ identity in terms of their ‘sexual desire,’ the sexual desire circle was drawn larger on the Yusuke version map than on the Yumiko version” (woman, 20, Japan).\textsuperscript{143}

Taken together, this interpretation suggests that rather than heteronormative minority, sexual perversion or even an otherwise powerful gender inversion discourse as frameworks for explaining the experimental results for Study 1, it may be instead that erasure and silence of these sexual orientation discourses through a cultural ideology of sameness played a larger role. Natsuko suggested that Study 1 participants likely inferred that the fictional Taro “was unable to share his feelings with anyone else” due to a powerful prefiguration of homosexuality as itan and outside the realm of Japanese-ness. This othering, enforced through a cultural ideology of sameness, consequently rendered it “difficult” for a presumably homosexual Taro “to obtain others’ understanding.” Indeed, nearly all Japanese respondents emphasized the importance of receiving acceptance within the contexts of more proximal social relationships (family, friendships, school). This privileging of desire for social acceptance over the need for self-
expression, a consistent pattern among Japanese participants, stood in stark contrast to the New York City sample. I explore this important distinction in more detail in the next theme.

**Tensions concerning individual expression of sexuality.** While these multiply imbricated discourses of sexual orientation were integral to the reproduction of culturally defining ideologies in New York City and Tokyo, points of tension between these sexual orientation discourses emerged repeatedly across participants’ responses concerning the culturally specific ways these ideologies allowed participants to manage individual expression of sexuality. In this third and final theme, I focus my analysis on two culturally distinct forms this tension took: how a cultural ideology of diversity, in privileging the self-expression of individuality, exposed a site of tension between minority and postgay discourses in New York; and how a cultural ideology of sameness, in privileging social relationships over individual needs and expression, exposed a site of tension in participants’ ability to mobilize minority (and, to a lesser extent, postgay) discourses in Tokyo. While not meant to be comprehensive or to suggest each question/tension is confined to either US or Japan contexts, analysis of these two differently configured sites of contestation does, I argue, highlight both the tenuousness and resilience of sexual orientation discourses in the US and Japan. I begin with the response of Fatima, a 22-year-old woman of Middle Eastern heritage who describes a commonly shared awareness of and resistance to the essentialist idea of unity between sexual desire, behavior and identity fundamental to essentialist sexual orientation discourses in New York City. Fatima writes:

My personal view on homosexuality is that is no less “normal” than heterosexuality. I believe homosexuality is too often seen as an identity rather than a state of a human being and that can be both harmful and beneficial. It can be beneficial for an excluded person to find pride and/or social support in celebrating one's uniqueness and individuality from the rest of society but can also be harmful in creating strict categories for people. […] Many times I felt visually attracted by another female and I questioned whether or not this changes anything of my own sexual orientation as a
straight person. However, I realized that sexuality has many gray areas and it is possible to be attracted to the same sex or may want a romantic but non-sexual relationship with the same sex, or a sexual relationship with the same sex.

Fatima opens up with a full-throated affirmation of homosexuality as “no less ‘normal’ than heterosexuality.” Through the tactical and delegitimating deployment of scare quotes in describing heterosexuality as “normal,” she implicitly critiques a heteronormativity that in turn delegitimates homosexuality while aligning her own perspective with a minority discourse. From this minority discursive position of affirmation, Fatima states that “It can be beneficial for an excluded person to find pride and/or social support.” Her choice of the term “pride” in this context appears calculated to evoke images of a large, LGBT identity-based social and political movement in the US and its deployment of this term as a means “for an excluded person… [to] celebrat[e] one's uniqueness and individuality from the rest of society.” Drawing upon a minority discourse, self-expression of “individuality” is ultimately achieved through a process of self-actualization in which an authentic sexual identity—previously rendered inaccessible due to both internal and external struggle against a discriminatory, heteronormative society—is successfully excavated. “Individuality,” within this discursive narrative of sexual identity, entails not only self-extrication from the rest of a presumably heteronormative “society” but also enables social connection to a minority community of other gay people.

In critiquing a perceived heteronormative society, however, Fatima also mobilizes a postgay discourse in which a regime of binary sexual orientation “can also be harmful in creating strict categories for people.” Reliance on such sexual orientation categories, she suggests, fails to recognize “that sexuality has many gray areas and it is possible to be attracted to the same sex or may want a romantic but non-sexual relationship with the same sex, or a sexual relationship with
the same sex.” These myriad possibilities for sexual subjectivity and fluidity thus challenge an affirmational yet essentialist minority discourse of discrete heterosexual and homosexual orientation categories. Fatima is aware of this discursive incompatibility, and even explicitly names it: “I believe homosexuality is too often seen as an identity rather than a state of a human being” (i.e., sexual subjectivities or practices). A few focus group participants resisted the idea of essential sexual orientation categories altogether, with one forcefully asserting that “same-sex attraction is not necessarily a means of identifying oneself” (woman, 19, white). Yet even in these more extreme cases, the importance of “identifying oneself” sexually—even if not one aligning with the sexual identity categories associated with a minority discourse—implicated the powerful appeal of asserting one’s “individuality” within a postgay discourse as well.

While Fatima appears to position herself most strongly through a postgay discourse privileging sexual subjectivity, she also acknowledges that a minority discourse of sexual identity can be not only “harmful” but also “beneficial.” Her (ambivalent) resistance to a minority discourse of sexual orientation and its unifying alignment of sexual desire, behavior and identity thus implicates a concept of sexual identity as a site of profound tension, a tension voiced by several of her peers in New York. Some focus group participants attempted to discursively resolve this tension through an emphatic taking up of either a minority or postgay discourse; most, however, alternated between them. Ultimately, Fatima’s recitation of the pros and cons of each sexual orientation discourse effectively undermines the urgency in resolving this tension between minority discourse-enabled notions of essential sexual orientation categories and a postgay discourse-enabled deconstruction of those same notions. The more significant tension, she intimates, lies between these two discourses and powerful sexual perversion and gender inversion discourses associated with heteronormativity and discrimination. So long as a
need to resist societal homophobia and discrimination persists, she implies, Fatima must perforce live within the tension—the “harmful and beneficial” aspects of sexual identity.

Yet I also hear in Fatima’s response how her mobilization of a powerful cultural ideology of diversity in which the self-expression of individuality is privileged may also have a hand in reproducing this tension when attempting to mobilize both minority and postgay discourses. The role of this cultural discourse figured into Fatima’s attempts at making sense of her own experiences of sexual desire and attraction. She describes how, on a number of occasions, “I felt visually attracted by another female and I questioned whether or not this changes anything of my own sexual orientation as a straight person.” Fatima attempts to both mobilize a minority discourse in claiming a discrete sexual orientation as a “straight person” while also acknowledging her belief that “sexuality has many gray areas,” thereby illustrating her mobilization also of a postgay-discursive evaluation of the inadequacy of discrete sexual orientation categories. Both acts of mobilization are amenable within a cultural ideology of diversity in which the self-expression of individuality, either through a privileging of identity or sexual subjectivity and fluidity, is understood by these participants to be personally desirable.

A cultural ideology of diversity, in privileging the assertion of individuality, held material implications for the construction of the Euler diagrams as well. As one participant concluded, the fictional “Tom's... main worry is to come out of the closet. If he doesn't, this will affect his being a good student, his being a good son, his even being romantic or sexual” (woman, 21, Latina). As with Fatima’s recognition of the benefits of claiming a sexual identity, I interpret this participant’s mobilization of a minority discourse in her discernment of the adverse social consequences of failing to “come out of the closet.” By asserting an explicitly homosexual identity, this participant implies that Tom would experience more positive outcomes across life
domains and social roles. This basic assumption—that self-expression of individuality, whether in terms of identity or subjectivity, is associated with positive social outcomes—was common to both minority and postgay discourse-enabled interpretations of these diagrams by focus group participants New York City. As the fictional vignette focused to a large extent on the worry felt by a same-sex attracted Tom, I wondered if participants’ perceptions of a lack of that character’s self-expression of individuality (through sexual identity or subjectivity) might have inhibited their attribution of associations between components of sexuality and his social roles in the diagrams.

The privileging of self-expression within a cultural ideology of diversity was so central to the US participants that I found it necessary to interrogate how self-expression was discursively engaged within a cultural ideology of sameness in the Japanese focus group responses. Rather than a recapitulation of a tension between minority and postgay discourses, however, what I heard in the responses of these Japanese focus group participants instead was a tension between a minority discourse of sexual identity and various aspects of an ideology of sameness. Specifically, participants described navigating the social expectations of hairyo and oya kōkō—a privileging of social relationships, particularly those of parents, over the needs of self-expression. Participants described a Japanese culture in which the individual might freely indulge in the consumption of a variety of sexual practices—both real and fantastic—provided such indulgence did not privilege self-expression over the maintenance of proximal social relationships (e.g., family, work). By the same discursive logic, perceptions of a same-sex attracted Taro’s flipping of this social script, participants suggested, ought to entail grave consequences for his social relationships. I analyze the response of Shōta, a 20-year-old gay-identified Japanese man in the Tokyo area for whom this tension was particularly marked. My
selection of an openly gay participant should not be read, however, as suggesting this tension concerning self-expression was exclusive to gay-identified Japanese men. To the contrary, although he was a demographic outlier in this sample, Shōta’s self-proclaimed positionality as a gay Japanese man, I argue, provided a more incisive perspective on this culturally pervasive tension—one present in varying degrees across Japanese participants’ responses. Shōta writes:

I’m gay, so my views on this matter are likely different from others. [...] With the reality of homosexuality being taboo in certain countries, I think that Japanese people are comparatively accepting. The culture of BL is very popular and loved by many people. This also shows that interest in this regard is high. [...] However, the word gay strikes me as being somewhat in your face. People would recoil if someone suddenly came out to them as being gay, which is why I do not use this word. I think that this is because the words “gay” and “lesbian” have a strong connotation of sex. These terms are often used in adult videos and websites.

That Shōta felt the need to preface his response with the assertion that “my views on this matter are likely different from others” is telling insofar as I infer he regularly kept these views to himself. Whether this indicates his choice not to share or an external form of silencing, Shōta was nevertheless largely in agreement with many other participants’ views. Either way, I interpret this as reflective of a largely unspoken reality in Japan, shared by several participants, that “(homosexuality) is not an issue to be disclosed” to those in one’s socially intimate
relationships (woman, 21, Japanese). This silencing encapsulates the importance attached to one constituent element of a cultural ideology of sameness I discerned from these responses—that of hairyo, or a privileging of social relations over individual needs. In a contemporary Japanese society where talking about sex in a personal and serious manner is largely prohibited and associated with “adult videos and websites” (i.e., porn) (Fu, 2011; Lunsing, 2001; Saito, 2007; Sunagawa, 2002), a cultural principle of hairyo consequently demands silence around a minority sexual orientation discourse not only for its associations with the socially inappropriate topic of sex but also its emphasis on the primacy of expressing one’s individual identity.

Applying the cultural logic of hairyo allowed me to unpack what in Shōta’s response initially struck me as his incongruous claim concerning Japanese society’s relative acceptance of homosexuality in light of both Rie’s and Natsuko’s previous doubts on the matter. Asked about homosexuality, Shōta describes a general tolerance and acceptance in Japan: “With the reality of homosexuality being taboo in certain countries, I think that Japanese people are comparatively accepting.” I noted a similarly positive sentiment was shared by several Japanese women in the focus groups, although few men. This gender imbalance led me to more closely scrutinize the specific examples cited by those participants expressing more optimism concerning Japanese acceptance of homosexuality. What I discovered, in addition to references to onē tarento previously discussed, were references to “BL,” another form of popular entertainment in Japan. Short for bōizu rabu (literally, Boys Love), BL represents a popular subgenre of Japanese manga (comics) and anime (cartoons) centered on representations of male same-sex sexual behavior and homoerotic romance and widely available through readily accessed mass market publications and television programs. A phenomenon unthinkable in an American context (McLelland &

144 『（同性愛は）口外するものではない』
Welker, 2015), Shōta describes BL as “very popular and loved by many people” in Japan.

I argue that while a cultural logic of hairyo, as a constituent part of a cultural ideology of sameness, creates a tolerated space for the consumption of BL in Japan, that discursive space is strictly demarcated by a threshold between personal practice and social reality. Beyond its association with depictions of homoeroticism, BL is generally characterized by an anti-realism emphasizing romance over social realism or a minority discourse of sexual identity (Aoyama, 1988). Another participant echoed this explanation: “While gay couples in anime and manga do have fans, this is only something nijigen, and in actual society I don’t think they are accepted” (man, 20, Japanese). This male participant’s use of the term nijigen (literally, two-dimensional) is telling in this context, as this Japanese term is popularly associated with a mass-market consumption of fantasy wholly detached from a “three-dimensional” social reality. Hori (2013) argues that this strong awareness of the dividing line between reality and fantasy is what leads BL fans to attest that these depictions of male homoeroticism and same-sex romance have nothing to do with actual gay men in Japan. Through a cultural lens of hairyo, BL is

145 BL stories are often set in exoticized “other” places (often Europe or America) or previous historical periods. Characters are also othered, being aristocratic or historical figures, or fantastical creatures like vampires, angels, or aliens. As such, BL represents an idealized world without problems of societal discrimination and political struggle associated with real-world experiences of homosexuality. Even in the few BL which depict real-world problems, they are often exoticized. For example, the story of Ragawa Marimo’s (1998) Nyūyōku Nyūyōku (New York, New York) takes place in a fictional New York's early 1990’s gay scene and depicts the troubled life of a beautiful male prostitute as he searches for love and acceptance during the height of the AIDS crisis. Scenes of homophobia, gay bashing, depression and attempted suicide are touchingly depicted before the story is brought to its heart-breaking conclusion (McLelland, 2006). Some notable exceptions exist, however, such as Saemi Yorita’s (2004-2005) BL series buririanto burū (Brilliant Blue), which featured stories of its characters coming out and gradual (if not terribly realistic) acceptance within their fictionalized rural community in Japan.

146 『アニメやまがのキャラクターでゲイやレズビアンのカップルをファンたちがつくることもあるが、それも二次元どまりであり、実際社会では受け入れられないように思う。』
unproblematically tolerated not simply because of its nature as fantasy but also because it remains culturally cordoned off as an abjected and heavily fetishized space of individual consumption and transgressive desire outside the scope of social relationships—a space that also conveniently serves the discursive function of rendering claims about Japan’s relative acceptance of homosexuality plausible (if misleading).

Even Shōta inadvertently highlights this disconnect between fictional depictions of same-sex romance in BL and the uncomfortable possibility of encountering a self-identified gay person in real life. Whereas BL functions as fantasy at a comfortable remove from the real world, “the word gay strikes me as being somewhat in your face.” In contrast to the popularity and love Shōta associates with Japanese people’s reception of BL, “[p]eople would recoil if someone suddenly came out to them as being gay, which is why I do not use this word.” It is illuminating that Shōta avoids using the term *gei* (literally, gay) in describing himself to others as this would at first appear incongruous with his initial self-identification as gay. This aversion extended as well to my own encounter with him, as Shōta chose to publicly disclose his sexual orientation not during the focus group work (and in the presence of his peers) but instead through his relatively inconspicuous (and anonymous) written response afterwards. Shōta, implicating the aforementioned social taboo in Japan concerning open discussion of sex, opines that “I think that this is because the words ‘gay’ and ‘lesbian’ have a strong connotation of sex.”

147 Through a sameness ideological lens of *hairyo*, however, I argue that speculation as to what identity terms

147 In dissociating sex from acceptability, Shōta also implicitly dissociates sex from the acceptable medium of BL. However, I note that national legal restrictions placed on pornographic imagery forbid a certain degree of graphic sexual detail deemed “obscene” in these *manga* publications (thus falling within the purview of paragraph 175 of the 1907 revised Criminal Code). These same restrictions affect adult video production and distribution as well, strongly suggesting that, at least from the national government’s perspective, BL certainly has a connotation of sex (McLelland, 2014).
Shōta might prefer makes little sense when the point is to avoid the self-expression of sexual identity altogether in such social encounters. Avoiding self-expression of sexual identity in the “real world” results in something of an “open closet” for Japanese falling outside of a heteronormative society averse to open discussion of sexuality.

Many Japanese focus group participants, particularly all the men, focused on associations of the fictional Taro’s same-sex desire and romantic love on his social roles in their interpretation of the Euler diagrams, which I interpreted as concern over the social consequences of his perceived violation of hairyo in potentially asserting his sexual identity. One particular issue raised in several Japanese men’s interpretations concerned how Taro’s potential self-expression of sexual identity ran afoul of a related facet of hairyo within a cultural ideology of sameness: the Japanese concept of oya kōkō (filial piety, or obligation to parents). One participant’s explanation that “a good son is one who acts in accordance with his parents’ wishes” reflects in part social expectations placed on Japanese men. Since “few parents would wish for their sons to be a minority” (man, 22, Japanese), he continues, the institution of heterosexuality is reproduced through an emphasis on the perpetuation of the family—a culturally reinforced obligation which renders recognition of the existence of homosexuality nearly impossible (Kazama & Kawaguchi, 2010). In terms of the Euler diagrams, participants almost unanimously voiced expectations that Taro was likely to encounter emotional difficulty and ostracism in his self-expression of sexual identity, implicating such difficulty as likely to result in more frequent associations between the fictional Taro’s sexual desire and romantic love and his social roles as son in the family and baseball team member. Through the sameness

148『良い息子というのは両親の願ったように行動する、また両親というのは自分の息子がマイノリティであることを望むことが少ないのではないか […] 。』
ideological principles of hairyo and oya kōkō, I interpret these expectations as reflecting participants’ belief in the social consequences for Japanese men who violate a demarcation of the outside and inside of social life, a demarcation challenged by the self-expression of individual sexuality and identity through any sexual orientation discourse.

“Gray Areas” and “a Gray Zone”: Interpretation of the Euler Diagrammatic Patterns

In the preceding thematic analysis, I have attempted to map out the culturally nuanced ways participants mobilized each of these sexual perversion, gender inversion, minority and postgay sexual orientation discourses. Fatima’s references to “gray areas” and Rie’s “gray zone”—allusions to the complex and often contradictory ways these sexual orientation discourses are taken up in their respective cultural contexts of New York City and Tokyo—mirrored their own thoughtful mobilization of these multiply imbricated discourses. Sites of tension in participants’ responses marked nexuses of these conflicting and complexly interwoven sexual orientation discourses implicated the discursive work too of powerful cultural ideologies. While navigating these sites of tension did not preclude their ability to mobilize these sexual orientation discourses, it is still important to understand the consequences for participants of navigating those tensions as they dealt with the materiality of the Euler diagrams. I next review how the four sexual orientation discourses work within and tie together the three themes I have elucidated above. As I do so, my goal is to demonstrate the complex ways those themes, in conversation with the interdisciplinary literature on sexuality in these two cultural contexts, “hold” the complexity of my thematic analysis—both for a higher-level integration of that complexity and, consequently, as a strategy for interpreting the Euler diagrammatic patterns from Study 1.
Gray areas: discursive diversity and incitement to expression in New York City.

Sedgwick (1990) has argued that neither the content nor context of any cultural discourse of sexuality is static, with newer cultural narratives modifying, resisting, or expanding on dimensions of former ones. Participants in New York City like Ebony, Alexa and Fatima reflected this discursive diversity, mobilizing all four multiply imbricated discourses of sexual perversion, gender inversion, minority and postgay. In doing so, these participants proved critical observers of their worlds. Framing their responses through a cultural ideology of diversity, participants mobilized minority and postgay discourses to uniformly and explicitly resist a sexual perversion discourse in the US of erotic variety beyond a normative heterosexuality as dangerous, unhealthy, depraved and sinful (Rubin, 1984; Weeks, 1981). They also singled out a gender inversion discourse as resting on inaccurate stereotypes, arguing instead for the social construction of gender roles independent of sexual orientation.

In analyzing their responses, however, I realized that articulating their thoughts was unlikely to have been an easy task given the historical moment participants found themselves in. The dominance of a contemporary minority discourse of a sexual identity, traceable to the rise of identity-based political movements specific to American (and European) culture in across the twentieth century (Chauncey, 1994; Clendinen & Nagourney, 1999; Halley, 1994; Knopp, 1990), was evident across the responses of these New York participants. Several participants

149 Criminalization through anti-sodomy laws throughout the twentieth century increasingly focused on homosexuals as a class of people, serving as a catalyst for what came to be the lesbian and gay rights movement in the last third of that century (Chauncey, 2004; Halley, 1994). It is important, however, to place the early years of that movement in the broader context of a range of social movements in the 1960s and 1970s associated with left-wing politics that sought liberal reforms for minority groups via a broad-based critique of social, cultural and economic policies. The identity-based practices for transformation associated with these movements frequently included public dissent, political rallies and mobilization (Johnson, 2015). As Duggan (2002, p. 181) summarized it: “In the 1970s, gay liberation exploded onto a rapidly shifting
framed their resistance to pathologizing discourses through minority discourse-enabled appeals to equal rights and protections from a heterosexist society. At the same time, participants like Fatima recognized that “a homo- or hetero-sexuality [constituted] a binarized identity that was full of implications, however confusing, for even the ostensibly least sexual aspects of personal existence” (Sedgwick, 1990, p. 2). In mobilizing this postgay stance, Alexa intimates how an essentialist discourse of sexuality stifles dissent by prioritizing identity over subjectivity and/or sexual practice (A Paper Bird, 2013). Conversely, however, Fatima also describes the potential of poststructural and postmodern arguments to undermine minority rights-based approaches and challenge perceived gains (Weeks, 1998), leaving her no recourse but to unsatisfactorily navigate what Dowsett (1996, p. 274) described as the “impossibility of identity.” These tensely interweaving sexual orientation discourses must further be located in the context of extraordinarily rapid changes in national attitudes. As one illustrative example, Loftus’ 2001 finding that the majority of US society believed that homosexuality was immoral preceded public support for the official end of the federal “Don’t Ask, Don’t Tell” policy banning openly gay men and women from military service by just ten years (The Williams

scene of contest over the meanings of public and private and the related meanings of democracy and autonomy in collective and personal life. Following the 1969 Stonewall rebellion and the subsequent emergence of new organizations and rhetorics, gay politics began to interact intensely with feminist, countercultural and antiracist rhetorics and strategies. The emphasis of political activism shifted away from arguments for privacy as autonomy, and toward public visibility and publicity. But the work of recombining rhetorics of public and private was not abandoned; the project of building an unmolested collective life required continuing remappings of a right-to-privacy-in-public and a right to publicize “private” matters considered offensive to the phantom ‘general public.’”

This sentiment was expressed more viscerally in the human rights blog, A Paper Bird (2013): “The demand that gayness trump any other identity or interest because you’re BORN THAT WAY, that’s ALL YOU ARE; the contradictory search for bad gays who don’t have any right to the name; the talk of treachery, the policing of word choice as well as opinion, the smearing of some gays as “antigay” — these kinds of things don’t just demolish nuance and discussion. They destroy movements.”
It was in this rapidly evolving, complex and tension-filled discursive environment that New York City participants navigated the materiality of the Euler diagrams. Ebony’s concern about making meaning of these “drastic[ally]” different discourses, as well as Fatima’s ambivalence about navigating minority and postgay discourses out of concern for the larger homophobic context noted by Alexa and other participants, together reflected this cacophony of discourse in New York City. Given the complex discursive environment participants were describing to me, a retrospective sense of surprise at my detection of a consistent experimental pattern in Study 1 would be understandable. Here my cultural comparative lens offers guidance, however, illuminating the ways sexuality in modern Western culture “has been made expressive of the essence of both identity and knowledge” (Sedgwick, 1990, p. 26). I identified the cultural privileging, through an ideology of diversity, of an incitement to self-expression conceptually integrated into both a minority and postgay discourse. Just as a minority discourse derives its power through the claiming of sexual identity labels, so too is a postgay discourse marked not necessarily by a shunning of identity labels altogether (although this does occur) but rather an exponential proliferation of labels expressive of an arguably neoliberal drive to claim alternative—and individualized—sexual and gender identities. In this way, self-expression emerged as a site of tension between interweaving minority and postgay discourses for several participants in New York City. Despite the postgay-voiced resistance expressed by many participants, the consistency of experimental patterns in Study 1 suggest that a cultural incitement to individual expression may help to inhibit a complete rejection of essentialist thinking about sexual orientation categories.

That participants like Ebony kept returning to critique a gender inversion discourse and
the policing of men’s same-sex sexualities also implicates the role of gender in participants’
discursive mobilization of these sexual orientation discourses. Despite a “certain irreducibility”
of sexuality to gender (Sedgwick, 1990, p. 30), unpacking the role of gender across these themes
leads me to interrogate the function of gender ideologies in the US. From a critical
queer/poststructural perspective, the visible markers of gender identity, such as masculinity and
femininity, and the way in which they map onto male and female bodies are often used to “read”
normative and non-normative sexuality (Johnson, 2015). Adam (1998), referencing Sedgwick’s
(1990, p. 185) thesis of “male homosexual panic” on the tensions between homosociality and
homosexuality, locates the source of the problem of anti-homosexual prejudice with a form of
“gender panic” stemming from the psychological contradictions and tensions of a traditional
form of masculinity. A hegemonic ideology comprising qualities boys and men are to enact, this
traditional masculinity includes being assertive, protecting and providing for the family, having
irrepressible sexual desire (for women, not men), and avoiding feminine behaviors or attitudes
such as emotional expressions of connection (Connell, 1987; Kimmel, Hearn, & Connell,
2005).151 As such, the stereotypes of gay men I drew upon in crafting testable hypotheses in

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151 Connell and colleagues have argued that masculinity is best conceptualized not as a trait or
social role, but as a socio-political ideology describing a set of practices, norms, beliefs, and
mandates that work in tandem to organize and regulate gender-appropriate emotional
expressions, behaviors, bodies, and sexualities (Connell, 1987, 1995; Connell & Messerschmidt,
2005; Pleck, Sonenstein & Ku, 1993). Borrowing from Gramsci’s concept of hegemony as a
saturation of consciousness, Connell (1987) described a hegemonic masculinity as an
impoverished notion of how an ideal man should strive to attain and maintain a dominant
position in society, in the process justifying the subordination of women and alternative
masculinities. Such ideals are seemingly the only way to be an appropriate man (Connell, 1987,
1995; Rubin, 1984). As such, hegemonic masculinity doesn’t describe the actual activities of
most men, but rather an impossible ideal to which boys and men should aspire and an ongoing
accomplishment to be continuously enacted (Demetriou, 2001; Frosh, 1994; Vandello & Bosson,
2013; Wetherell & Edley, 1999, 2014). If male is not synonymous with masculine, the door is
opened to masculinity not as biological destiny but rather a socially constructed phenomenon
that can take on any number of forms, some privileged and others not (Bridges & Pascoe, 2014;
Study 1 may also be interpreted as reflecting violations of this ideology of traditional masculinity. While the ubiquity of participants’ postgay-voiced critique of this masculinity ideology would appear to validate claims of the decline of homophobia in contemporary US society as freeing up possibilities for men’s performance of gender and masculinity (McCormack, 2012; McCormack & Anderson, 2014), the parallel ubiquity of participants’ earnest resistance to these gender inversion stereotypes also strongly implicates the continued power of this essentialist discourse (Sánchez, Greenberg, Liu, & Vilain, 2009; cf. Wong, Ho, Wang, & Keino Miller, 2017).

The discursive hold of an ideology of traditional masculinity was perhaps most evident in participants’ postgay-voiced deconstruction of traditional masculine notions of men and their social roles in relation to the Euler diagrams. Ebony’s troubling of a lack of prominence she perceived for a same-sex attracted Tom’s identity as a “baseball team member” implicated not only gender inversion but also a failure of a traditional masculinity. Repeated references to the “son in the family” identity among participants of color in this sample suggested additional ways the discursive presence of policing of men’s masculinities was experienced in different ways depending on participants’ intersectional positionalities in New York. Considered in tandem with participants’ resistance to a gender inversion discourse, I heard a troubling of traditional gender norms for men and their social roles, a troubling which could help explain why I did not detect an empirical pattern indicating stereotypes of a traditional masculinity—i.e., prominent sexual desire and diminished romantic love—above and beyond the experimental manipulation. At the same time, the tenacity of a gender inversion discourse and the role of an ideology of traditional masculinity—particularly in that ideology’s role in rendering gender differences more socially
salient for men in ways that it is not for women (Chodorow, 1979; Hare-Mustin & Marecek, 1990)—helps explain why US men in Study 1 drew more associations with the fictional target’s social roles regardless of the target’s object of sexual desire and romantic love (see McDermott, Schwartz, Lindley, & Proietti, 2014).

**A gray zone: discursive silence and appropriation in Japan.** Understanding how sexual orientation discourses interwove with a cultural ideology of sameness, and its related cultural principles of *hairyo* and *oya kōkō*, helps explain a prevailing silencing and erasure of homosexual voices and bodies and the reproduction of a distinctly Japanese heteronormativity. Natsuko and her Japanese peers’ interpretations reflected this silencing through a lack of personal experience to draw upon and consequential inability to articulate, constraining an otherwise inchoate resistance to heteronormative cultural scripts of sexuality represented by, most prominently, a gender inversion discourse. While this silencing reflects the invisibility of openly gay people in Japan, it also marks erasure through an othering of homosexuality as something “from another dimension,” to borrow Natsuko’s words.¹⁵² Her view was not surprising to me, as few university students in Japan indicate more than a cursory knowledge of sexuality issues such as homosexuality, a situation not helped by a context in which many parents, teachers and university curricula in Japan continue to promote a culture of silence around issues of sexuality (Castro-Vázquez & Kishi, 2002; Kazama & Kawaguchi, 2010).

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¹⁵² For most of the twentieth century, sexuality, unlike gender, was not commonly understood by Japanese to be the basis of identity (Valentine, 1997; see also Ryang, 2006). As late as the turn of the century, discussions of *dōseiai* (homosexual) issues in the Japanese press frequently conflated gendered object of choice and gender identity while largely ignoring an American-style discourse of individual rights (McLelland, 2005). This discursive regime has started to change within the last few years, however. Recent evidence suggests a minority discourse of sexual orientation is gaining in popularity through spread of a transnational minority discourse of *LGBT* and *mainoriti* (literally, minority) in the media (Brasor, 2016), business (Umeda, 2017) and advocacy (Hata, Fujii, & Katsuragi, 2016).
Despite international commitments by the Japanese national government toward ending the violation of human rights due to sexual orientation or gender identity (UNGA, 2008; UNHRC, 2011), social and state-based discrimination against sexual minorities remains pervasive in Japan (UNHRC, 2012). Heterosexuality is assumed and unremarked upon in a cultural ideology of sameness, the unspoken norm against which homosexuality is erased.\footnote{An ideology of sameness strongly resembles prior theorizing on public belief in the homogeneity and distinctness of Japanese culture (e.g., Ohnuki-Tierney’s, 1993, exposition of the primordial Japanese national self). This is not to argue that an ideology of diversity is not present in a Japanese cultural context. While Japanese self and identities may be situated (Bachnik, 1994)—defined in relation to a given situation rather than separate from it—in such a way as to discourage self-assertion (Keiichi, 1978), such a social system does not deny the existence or agency of the individual (Hendry, 1992). Indeed, in recent years discussion in academic, advocacy and educational circles alike have begun incorporating the concepts of tayōsei (diversity) and daibāshiti (literally, diversity). Despite this emerging trend, however, none of the responses in the current Japanese sample referenced these concepts, which I interpret as reflective of the relatively limited extent to which this newly emergent discourse had infiltrated the larger Japanese society at the time of data collection.} This shared sense of Japanese-ness translates into a formidable social pressure toward heteronormative conformity (McLelland, 2015).\footnote{Japan, unlike the US, has virtually no history of criminalizing same-sex sexual behaviors. Instead, the Japanese state has relied almost exclusively on other forms of legal discrimination to contain queer bodies and silence identities across a variety of domains, including: obscenity legislation, censorship, zoning laws, employment, and school curricula and textbooks (Castro-Vázquez & Kishi, 2002; Fu, 2011; Watanabe, Kusunoki, Tashiro, & Ushitora, 2011; Valfort, 2017; cf. Odanaka, 2018). Illustrative of this top-down social pressure concerns a 2017 move by the Japanese Ministry of Education (MEXT) to include sexual minorities for the first time in considering bullying in public schools. The official MEXT guidance encourages the importance of instructors helping students understand LGBT issues. However, the “learning guidance essentials” on officially approved textbook content was not changed to correspond to this ostensible move at inclusivity despite a grassroots petition campaign to that end. When pressed, the official response was that the “Japanese public cannot understand” LGBT issues (MEXT, 2017), a conclusion not without some justification (Brasor, 2016).} Constrained to a level of abstraction or entertainment, minority and postgay discourses of homosexuality that celebrate a sexual individuality remain largely silenced, likely adding difficulty for participants to mobilize them. A sameness-inflected taboo means open discussion of sex or other “unproductive” individual-
oriented functions of sex such as homosexuality and pleasure are either denied or silenced (Fu, 2011). Consequently, “ordinary heterosexual people habitually and with the best intentions make homosexuals or LGBT people invisible in their daily and ordinary communication processes in Japanese communities” (Saito, 2007, p. vii).

Indeed, at no point did Japanese participants in the current focus groups mobilize a discourse of human rights when describing gay men. This discursive silence strongly suggests that gay men, despite their increasing recognition as members of an LGBT social minority (Brasor, 2016), remain excluded from an increasingly powerful human rights around minority social movements in Japan (Tsutsui, 2018). Instead, they mobilized sexual orientation discourses primarily in description of the most accessible representations they knew of: BL and onē tarento, characters inhabiting a fantasy world designed for heterosexual entertainment (Hatano & Shimazaki, 1997). Yet it is also important to understand how Rie’s and Shōta’s selection of these specific representations of male homosexuality, indicative of the dominance of a gender inversion discourse, implicates also the role of a powerful gender hierarchy in Japan. This gender hierarchy, while softening somewhat in recent decades, remains powerful across social, family, legal and employment domains (Jolivet, 1997; on the role of the state, see Ueno, 2004; in the domestic sphere, see Chapple, 2004; in language, see Ogawa, 2001).155 Thus, in the context of a society in which comics occupy a central cultural space—a space dominated by more explicitly heteronormative manga where women are sexually, and often violently, objectified for the

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155 This contemporary patriarchal system arguably goes back centuries in Japan (Leupp, 1995; Phlugfelder, 1999; see also Furukawa, 1994), extending even to language. Japanese language is highly gendered even among other gendered world languages (Ogawa, 2001). Pronoun usage, sentence-final particles, and verb inflections cement a heteronormative gender hierarchy of danseigo (male speech) and joseigo (female speech) (Maree, 2008).
entertainment of men and boys (Morohashi, 1995; Tanaka, 2003)—BL stands out as a fantasy genre specifically catering to heterosexual Japanese women through gendered depictions of ostensibly male characters, yet in highly gendered relationships through which women can identify more readily. While BL arguably offers an avenue of resistance to a “male gaze” for women (McLelland, 2000a), this resistance has been criticized as, ironically, defending the sexual objectification of gay men as a means to fuel heterosexual women’s fantasies in the simultaneous reproduction of an institutional heterosexuality and gender hierarchy (Hori, 2013; Ishida, 2007).

Allison (1996) argues that heterosexuality is heavily imbricated with violence in Japanese comics aimed at boys and men. In comics targeted to young and adult men, male characters are represented in hypermasculine ways: harsh angular drawing style, usually with short hair and exaggerated muscles and sporting “harsh features—few smiles, gruff expressions, meanness around their eyes” (p. 64). Competitive and aggressive, these male characters “both look and act like brutes” (p. 64). In these mainstream manga, “the sexual aims that are dominant […] are seeing, possessing, penetrating and hurting” (p. 64). Women, by contrast, are depicted as compliant with men’s sexual needs and inviting their sexual domination: “sex, typically, is something that is done to them” (p. 62). As a counterpoint and policing function, men who do not succeed at heteronormative sexual conquest in comics are depicted instead as “pathetic creatures who need their egos taken care of by women who do this by providing sex” (p. 68). As such, heterosexual sex is rarely presented as an equitable exchange in men’s manga, mainly because the men are either aggressive super-heroes or miserable failures. In the first case, sex is a commodity men take from women and in the latter case it is a commodity women bestow on men.

Widely available at chain bookstores and convenience stories, the genre of girls’ comics known collectively as Boys Love is the largest outlet of same-sex erotica outside of the gay press (McLelland & Welker, 2015). Originated in the 1970s by underground women manga fans, this subgenre of shōjo manga gained rapid mainstream commercial success during the “gay boom” of the 1990s (sometimes under the alternate labels shonen-ai and yaoi) and are now read, primarily by women, in both private and public spaces (Hori, 2013; McLelland, 2005). In contrast to hypermasculine-heavy comics aimed at Japanese boys and men, in BL the characters are almost always depicted as bishonen—beautiful teenage boys depicted with big eyes, long flowing hair, long slender limbs and few muscles. The broad influence of the bishonen archetype upon masculine stylization is not limited to fictional portrayals; its influence may be particularly gleaned from the marketing of boy bands that appeal to women (McLelland, 2000a). These mainstream depictions of homoeroticism are not without controversy in Japan, however, as evidenced by unsuccessful attempts in recent years to have BL titles designated “harmful to youth” and removed from bookstore shelves (McLelland, 2015; Ueno, 2009).
At the same time, this powerful gender hierarchy is supported by an ideology of traditional masculinity in Japan, with consequences for beliefs about what being a man means. Japanese scholars have argued that prejudice toward sexual minorities in Japan is deeply rooted in gender role stereotypes grounded in an ideology of traditional masculinity (Miyazawa & Fukutomi, 2008; Wada, 1996). A pervasive conflation of homosexuality and GID (read gender inversion) in the popular Japanese imagination, most readily visualized through the socially tolerated depictions of BL and onē performance,\(^{158}\) effectively maintains a system of heterosexuality and gender hierarchy (Kazama & Kawaguchi, 2010; McLelland, 2005).\(^{159}\) At the same time, culturally dominant depictions of a traditional masculinity in the Japanese popular media essentially serve a prescriptive purpose for boys and men (Tanaka, 2003).\(^{160}\) I argue that

\(^{158}\) Unlike US drag queen figures like Ru Paul, who uses camp primarily to highlight the artifice of gender and sexual norms, sometimes exaggerating convention to the point of burlesquing it (see Newton, 1979), as well as serve as highly visible representatives of queer communities, cultures and political movements in the US, onē tarento take on rather more discursively complex role in the Japanese mainstream media. On the one hand, onē characters represent a long history of the Japanese media of supporting a wide range of sexual subcultures and representations while parodying, contesting and undermining official government directives (such as in sex education; see Fu, 2011). However, Kuroiwa (2016) argues that onē characters, unlike their American drag queen counterparts, are commonly depicted as desexualized and depoliticized, neoliberal avatars of a consumer lifestyle as “good citizens” rendered more palatable to—and ultimately reproductive of—a heteronormative society.

\(^{159}\) Kazama and Kawaguchi (2010) argue that GID was more widely and quickly accepted than homosexuality by Japanese society for two reasons. First, GID was framed by the government and media as a “disease” and therefore treatable, aligning with a benign gender inversion discourse. Second, laws addressing GID kept heteronormative system firmly in place and unchallenged by removing the outcome of homosexual orientation through gender reassignment. Since the end goal was a return to a heterosexual relationship, they argue, a diagnosis of GID was an outcome a heterosexist society could more easily comprehend and accept.

\(^{160}\) The cultural power of an ideology of masculinity is also evidenced by panicked reactions in the media around (presumably heterosexual) men not having sex in Japan in recent years. The number of young adults (18-24) who report never having engaged in sexual activities has also steadily increased since 2000 (National Institute of Population and Social Security Research, 2016). Public discourse has taken on the term sōshokuka (literally, “herbivore-ization”) as an emasculating euphemism to describe a tendency in recent years of young people, particularly young men, losing interest in sex. However, recent internet survey research suggests that men’s
it is therefore useful to apply an ideological lens of traditional masculinity in interpreting the experimental patterns from Study 1 for the Japanese sample. Consideration of a powerful and largely uncontested gender hierarchy in Japan, particularly through the prescription of gender norms drawing upon an ideology of traditional masculinity for boys and men, helps explain the relatively amplified discrepancy between men’s sexual desire and romantic love across experimental conditions for this group of participants.

Social pressure to avoid self-expression of individual identity, together with the discursive work of gender role stereotypes, has implications for Japanese participants’ perceptions of men’s social roles as well. Responding to a common incomprehension experienced by a heterosexual majority about why closeted gay men would feel pressure to remain closeted in a society unmarked by the outward displays of persecution purveyed by the Japanese media, several scholars have identified the cultural principle of hairyo as an important factor in the othering of queer Japanese people (Derne, 1992; Sunagawa, 2002; Sunagawa & RYOJI, 2007). Indeed, my Japanese focus group participants were quite clear in articulating tensions between a cultural principle of hairyo and the four sexual orientation discourses, specifically a minority discourse. They collectively described concern that the fictional Taro’s sexual practices did not interfere with or challenge the legitimacy of the heteronormative and gendered institutions of marriage and household (see Robertson, 1998). At issue in their interpretations of the Euler diagrams was a violation entailed by privileging individual self-

sexual desire may not be as low as suggested by these national data (JASE, 2013; National Institute of Population and Social Security Research, 2017; Kanemasa, Komura, & Asano, 2018). The fact that media reports conspicuously play down these nuanced findings in favor of more sensationalizing coverage further highlights the strictly policed domain of acceptable masculinity.
expression over social relations.161 When through self-expression queer Japanese men are represented as passing from the outside to the inside of social life, they cease to be entertaining and are instead regarded as a threat and object of ridicule or concern (Sakaguchi, Sakai, Ueda, & Hasegawa, 2007).162 A cultural emphasis on the honoring of parents and the perpetuation of the family through a principle of oya kōkō, among Japanese men especially, consequently renders recognition of the existence of male homosexuality nearly impossible.

As such, “coming out” becomes tantamount to letting one’s friends and family down by failing to conform to society’s expectations, both in terms of prescribed gender roles for men assumed to be violated in light of a gender inversion discourse, as well as in terms of a culturally inappropriate prioritization of individual self-expression. The discursive work of an ideology of traditional masculinity is arguably amplified further through its mutual imbrication with a cultural ideology of sameness. The vignette presented in this study, although fictional, offers a glimpse of several such instances of hairyo violation: in terms of Taro revealing his attractions to

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161 At the level of language, questions of identity are also complicated by the fact that self-reference is almost always in relation to context (Kondo, 1990; see also Nakamura, 2007). A case in point: whereas English communication often relies on a decontextualized, first-person “I” as subject (both linguistically and discursively), Japanese language frequently dispenses with personal pronouns in favor of context-dependent, self-referential terms.

162 While a popular discursive construction of sex as a practice works against the understanding of homosexuality as a connected minority (Robertson, 1998; Lunsing, 2001; McLelland, 2000b, 2015; Moriyama, 2012), there are indications that the number of Japanese young adults claiming sexual minority identities has increased in recent years (Dentsu, 2015). That said, some queer Japanese men reject the idea that a US-based “rights model” is an appropriate strategy for improving the situation in Japan (McLelland, 2000b). Consequently, queer Japanese people may be less likely to rally behind a sexual identity label and, highlighting their sexuality, use it as a weapon in a confrontational social movement aimed at gaining greater sexual rights. Instead, queer Japanese people and their advocates have been more likely to negotiate their way around existing social structures and laws rather than challenge those structures and laws head on (Sasaki, 2017; McLelland, 2000b). Even Japanese activists advocating directly for a sexual minority movement in Japan point out that claiming gay identity need not necessitate public self-expression (Sunagawa, 2002).
both friends and parents to be sure, but also in his expressions of guilt about not meeting their expectations for him in his academic pursuits. It was the Japanese men in these focus group responses who most frequently articulated concerns over Taro’s crossing this threshold from the outside to the inside of social life—concerns tied to a mobilization of stereotypes describing the inevitable emotional difficulty and suffering they associated with Taro’s social roles.

**Conclusions and Questions**

Taken together, my interpretations suggest that while the overall pattern of experimental results was consistent across these two cultural contexts in New York City and Tokyo, those inductive potential beliefs may reflect different ways in which participants mobilized the four sexual orientation discourses. Focus group participants in New York City voiced powerful resistance to sexual perversion and gender inversion discourses, a resistance enabled through both minority and postgay discourses of sexual orientation. Despite the postgay-voiced resistance expressed by many participants, the consistency of experimental patterns in Study 1 suggest that a cultural incitement to individual expression entailed by mobilizing a minority discourse may have inhibited a complete rejection of essentialist thinking about sexual orientation categories by the Study 1 participants. The discursive hold of an ideology of traditional masculinity was perhaps most evident in participants’ postgay-voiced deconstruction of traditional masculine notions of men and their social roles in relation to the Euler diagrams. Considered in tandem with Study 2 participants’ resistance to a gender inversion discourse, I heard a troubling of traditional gender norms for men and their social roles, a troubling which could help explain why I did not detect an empirical pattern indicating stereotypes of a traditional masculinity above and beyond the experimental manipulation from Study 1. At the
same time, the tenacity of a gender inversion discourse and the role of an ideology of traditional masculinity helps explain why men in Study 1 drew more associations with the fictional Tom’s social roles regardless of that target’s object of sexual desire and romantic love.

Contrasting with these findings, focus group participants in Tokyo instead described a very different discursive environment marked by the discursive silencing and erasure of non-heterosexualities. The sole exceptions to this silence and erasure were references to highly gendered and fantastic depictions male homosexuality found in BL and onē characters in popular media. The overtly romanticized depictions of male same-sex relationships in BL in particular, while at first appearing at odds with the relative dissociation of romantic love with the same-sex attracted Taro character in Study 1, are rendered intelligible when considered as pure fantasy divorced from the reality of queer Japanese men. The dominance of a gender inversion discourse in this Japanese context, coupled with a cultural privileging of social conformity over self-expression of individual identity, markedly diverged from the identity/subjectivity tensions experienced by US participants. The consistency of experimental patterns for this sample, while indicative of participants’ inductive potential beliefs, may be thus have been driven less by a minority discourse as by an equally essentialist gender inversion discourse. Mobilization of a cultural ideology of sameness may have amplified this pattern in terms of delineating which discourses were incited, and which were silenced. Participants’ concerns over socially prescribed gender norms for men, drawing upon twinned cultural ideologies of sameness and traditional masculinity, may also explain the relatively amplified discrepancy between men’s sexual desire and romantic love across experimental conditions for this group of participants. Finally, Japanese men in these focus group responses most frequently voiced concerns over Taro’s violations of a sameness ideological principle of hairyo—concerns that explain men’s more frequent association
of Taro’s sexual desire and romantic love with his social roles.

These findings raised new questions for me about the role of gender and gender ideologies in these cultural contexts, however. If anything, my analysis of the New York focus group data gives short shrift to the ethnic diversity represented in participants’ responses. Two Latina participants, whose responses I briefly sampled from above, alluded to the importance of culturally specific views concerning men and masculinity within their communities. While I obliquely reference the uniquely ethnic lenses through which participants engaged in or resisted an ideology of traditional masculinity, the sparseness data did not permit me to analytically delve more deeply during the development of themes in the current analysis. Had I to do it again, I would have explicitly encouraged participants to reflect more on their own positionalities in responding to the prompts.

My uncertainly about how gender played out across the Japanese responses focused on a different, and arguably more fundamental, issue. Astute readers will have noted that references to the mobilization of a postgay discourse were conspicuously absent from my analysis of the Japanese focus group responses. This absence reflects in turn a conspicuous absence of this discourse in the responses themselves, which at first prompted me to wonder if this was an artifact of my sampling or perhaps my own inability to hear the ways a postgay discourse was voiced in a Japanese cultural context. After all, I do discuss a common view of sex in Japan as a practice rather than the basis of identity, which would seem to open the door to the work of a postgay discourse. However, what I heard in these responses was not a postmodern rejection of an essentialist discourse of binary sexual orientation in favor of a focus on sexual practices; it was, I now believe, more a postmodern troubling of essentialist discourses of binary gender.\(^{163}\)

\(^{163}\) The rise of an identity label of ekkusu-jendā (literally, “X-gender”) in recent years may be
In my analytic focus on essentialist beliefs about sexual orientation categories, I was not hearing the ways participants voiced—and resisted—essentialist beliefs about gender categories. My *a posteriori* realization leads me to wonder if a more illuminating investigation of essentialist beliefs in Japan might entail a focus instead on inductive potential beliefs about binary gender.

interpreted as a postmodern response to the continued conflation and pathologization of gender non-conforming behavior and non-heterosexualities (Dale, 2012). Those who claim X-gender identities pointedly refute a bifurcation of cis- and transgender as well as a male/female gender binarism. X-gender thus seems to most directly concern a postmodern deconstruction of a gender binary and hierarchy in Japan (Label X, 2016).
PART III

Discussion and Conclusion
CHAPTER 7: Discussion and Conclusion

This dissertation was structured into two parts based on the two distinct goals of this project: 1) development of an adaptable, critical amalgam methodology for the investigation of laypeople’s inductive potential beliefs across cultural contexts; and 2) application of this critical methodology through a mixed-method investigation of laypeople’s sexual orientation beliefs in the US and Japan. I proceed to review why and how I developed the methods/methodology used, as well as how that methodology “worked” (i.e., the findings). I go on to consider several limitations associated with both the methodology as well as my application of it in my comparative analysis of inductive potential beliefs in New York City and Tokyo. Finally, I discuss implications for this methodology in terms of inductive potential beliefs about other essentialized social categories, along with possibilities for cross-pollination with other critical areas of research on sexuality and implications for methodologies in cross-cultural designs.

Reflections on Development and Application of the Critical Amalgam Methodology

My reflections on this project are two-fold: 1) the methodological thread tying both quantitative and qualitative methods in tandem as a means to refocus an investigation of inductive potential beliefs about sexual orientation away from my own discursive understanding of sexual orientation and toward participants’ own mobilization of culturally available discourses; and 2) how the mixing of methods enabled me to do a “legitimate” cross-cultural study with highly reliable and credible findings, thereby responding to and redressing social constructionist critiques of survey localization methods dominant in cross-cultural psychology. As part of my summary I specifically explicate how my adoption of a mixed-method approach
also enabled me to resolve this point of critique through the actual content of findings from Studies 1 and 2. I also provide critical commentary on how I was able to incorporate culturally salient constructs in every dimension of the analysis in an effort to better realize the potential of “culturally competent” research practices.

**Working the tensions: psychological essentialism and methodology.** In the first half of this dissertation project I traced my development of a critical discourse-based methodology and instrument, broadly adaptable across cultural contexts, for measuring laypeople’s constructed beliefs about an “essential” nature underlying sexual orientation categories, or sexual orientation beliefs. In the first chapter I laid out a “strategic” social constructionist epistemological framework to identify necessary components of a critical theoretical framework. My rationale for this approach was to avoid essentialist configurations that treat both sexuality and culture as timeless, naturalized “things” (D’Andrade, 1984) while simultaneously holding in productive tension ontological incompatibilities representing a range of social constructionist approaches. Using this framework, in the second chapter I critically reconstructed a model of psychological essentialism that, while ostensibly drawing upon a social constructionist concept of essentialist thinking, was nevertheless grounded in individual cognition (Medin, 1989; Medin & Ortony, 1989; Rothbart & Taylor, 1992). My reconstruction took this original cognitive model and reimagined it through an approach of discourse.164

Through my discourse-based reconstruction of this model, however, three methodological issues came into focus in the current body of research on laypeople’s essentialist

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164 I speculate further that the original cognitive conceptualization of psychological essentialism, despite these authors’ implicit reliance on constructionist-enabled deconstruction of essentialist thinking about social categories (Rothbart & Taylor, 1992), reflects the state of the field in the 1980s and early 1990s during the popular height of an individualizing cognitive paradigm in social psychology not especially attentive to culture (see D’Andrade, 1981; Pepitone, 1986).
beliefs about (homo)sexuality. First, an assumed predictive association between essentialist beliefs and anti-homosexual prejudice reflected an epistemologically incompatible “hybridization” of the social construction-based theory of psychological essentialism and the essentialist logic of attribution theory (e.g., Arseneau et al., 2013; Haslam et al., 2002; Haslam & Levy, 2006; Morandini et al., 2017; for a similar critique, see also Demoulin et al., 2006; Hegarty, 2018). A second and third issue are intertwined: 2) reliance on a forced-response scale-based methodology predicated on investigators’ own operationalizations of sexual orientation meant that the instruments used were 3) insensitive to an investigation of the myriad ways laypeople draw upon culturally available discourses in constructing their beliefs about sexual orientation. In an effort to both address and remedy both issues, I investigated one critically reconstructed—and empirically understudied—dimension of psychological essentialism: inductive potential, or “the ability [for laypeople] ‘to go beyond the information given’” (Rothbart & Taylor, 1992, p. 13). Applied to the current topic, that meant an investigation of the ways laypeople’s essentialist thinking about sexual orientation category membership allows them to infer a wealth of associated information about those categories. Through my reconstructed theoretical lens, I reconceptualized inductive potential as an outcome of laypeople’s discursive mobilization of available essentialist discourses of sexual orientation,

165 While social scientists have long argued that changing beliefs about sexual orientation can change anti-gay attitudes (e.g., Whitley, 1990), the research evidence is inconclusive at best (Boysen & Vogel, 2007; see Hegarty & Golden, 2008, for discussion), leading some to conclude that there is no “essential” relationship between sexual prejudice (attitudes) and beliefs about the nature of sexual orientation (Hubbard & Hegarty, 2014). Indeed, the decidedly Western “flavor” of attribution-based approaches, including the logic of this linkage, had already been noted by others (Israel & Tajfel, 1972; Norenzayan & Nisbett, 2000). As discussed throughout this dissertation, however, more recent critical theorizing around the concept of transnational flows of sexual orientation discourses troubles these earlier critiques, demonstrating that, while useful, they may paint an incomplete and oversimplified “west and the rest” picture (Halperin, 2016; see Connell, 1998; Corrêa et al., 2014; Stoler, 1995).
effectively switching from a cognitive “top-down” to a discursive “bottom-up” empirical strategy.

In order to investigate laypeople’s discursive processes across cultural contexts, in Chapter 3 I developed a critical amalgam methodology—a mixed-method amalgam of priming, experimental vignette, fuzzy set theory-based diagramming outcome instrument, and peer credibility designs—to experimentally investigate the ways laypeople discursively mobilized essentialist beliefs about the inductive potential of sexual orientation categories, or inductive potential beliefs. Put in Rothbart and Taylor’s (1992) terms, “the information given” was operationalized through an initial priming of an essentialist discourse of sexual orientation, followed by an experimental vignette featuring the manipulated behavioral and emotional cues associated with a fictional target in an impression formation task; “going beyond” was operationalized through group-level inferential analyses of participant-generated Euler diagrams—richly structured visual depictions of a set of identities constructed by participants in their evaluation of the target. The manipulation rested on a juxtaposition of the target’s and object’s gender cues so as to correspond to discrete, culturally salient sexual orientation categories (i.e., heterosexual, homosexual); no identity language was employed. In this way, my methodology relied on laypeople’s own mobilization of culturally shared discourses of sexuality rather than investigators’ deployment of any particular sexual orientation discourse through written prompts.

My critical amalgam methodology effectively resolved the epistemological tensions present in prior essentialist belief research by moving away from a forced-response scale-based approach that relied both on investigator’s deployment of one culturally-specific discourse of sexual orientation and the association of beliefs with anti-homosexual attitudes those scale-based
approaches directly enabled. Yet I would be remiss if I did not also recognize the epistemological tensions fundamental to my own critical amalgam methodology. In adopting a "strategic" social constructionist lens as my starting point, I necessarily navigated what Kitzinger (1995) termed both "weak" and "strong" approaches to social constructionism and their incompatible epistemological warrants. Ultimately, however, I argue for the advantage of my own methodology over past empirical approaches to psychological essentialism on two grounds. First, tensions between competing perspectives within the domain of social construction seem to me preferable to the tensions between social construction and essentialist positions inhering in much currently published research on essentialist beliefs about sexual orientation. And second, through my adopted critical lens I openly recognize and address these sites of tension throughout development and application of this methodology (see Fahs & McClelland, 2015).

**Inductive potential beliefs in the US and Japan: Findings and interpretations.** The second half of this dissertation project constituted a test application of my critical amalgam methodology for investigating laypeople’s inductive potential beliefs in two culturally distinct urban contexts: Tokyo, Japan and New York City, United States. My purpose in selecting these two cultural contexts was to balance comparability with variability. Specifically, I aimed to select contexts comparable in terms of socio-economic level (e.g., GDP), human rights record, familiarity with the research methods developed, and tolerance toward homosexuality. At the same time, I selected contexts evidencing cultural differences indicative of different ways discourses of sexual orientation interweave with each other and in tandem with local discourses so as to enhance the chances of detecting variation across these two cultural contexts.

Through a critically reconstructed model of psychological essentialism grounded in discourse I predicted that, to the extent participants mobilized essentialist beliefs about the
different inductive potential of heterosexual and homosexual orientation categories, the fictional
target’s sexual preferences should have assumed an exaggerated role in how that target person
was understood and evaluated by the participant. As such, I did not directly measure participants’
inductive potential beliefs but rather analytically inferred their presence through detection of
group-level differences in participants’ Euler diagrammatic outcomes. This inferential leap thus
required a two-step method. In the first step (Study 1) and using inferential statistical procedures,
I investigated the presence of Euler diagrammatic patterns in relation to two components of
sexuality: sexual desire and romantic love across four outcomes of prominence, synthesis,
permeation and association. In the subsequent step (Study 2), I enlisted separate focus groups of
student peers of the Study 1 participants to act as interpretive communities in evaluating a
selection of Euler diagrams produced during the first study. Based on this second sample of
individual follow-up responses, I thematically analyzed the ways polyphonic and multiply
imbricated discourses of sexual orientation wove through the responses, both with each other and
in tandem with the discursive work of cultural ideologies pertaining to sexual self-expression. In
this way I took an informed approach in my own interpretations of the quantitative patterns from
Study 1 in a way that established the credibility to those interpretations.

Deriving specific predictions from the stereotype literature on essentialist beliefs about
male homosexuals, in Study 1 I hypothesized that, to the extent laypeople engage inductive
potential beliefs about sexual orientation, they should: 1) evaluate sexual desire as more central
(i.e., more prominent, etc.), and 2) evaluate romantic love as less central, in forming their
impressions of a same-sex attracted target compared to an other-sex attracted target. Controlling
for cultural context and gender, Study 1 participants indeed deemed sexual desire a more
centrally defining, and romantic love a less centrally defining, characteristic in forming
impressions of a same-sex attracted target relative to an other-sex attracted target. Cultural and gendered differences added additional nuance to these experimental patterns: Japanese participants associated men with greater sexual desire and less romantic love relative to their US peers, regardless of perceived sexual orientation. Additionally, US and Japanese men, compared to women, appeared to associate these two components of sexuality more frequently with men’s social roles. While these detected effects may have been small (to the extent I was able to report effect sizes), it is important to recognize that the cumulative impact of inductive potential beliefs across a range of real-world social interactions and instances of impression formation and essentialist thinking would mean that even a small effect size could have far-ranging and compounded consequences (see Rudolph & Baltes, 2008).

Based on my subsequent thematic analysis, however, I argue that while the overall pattern of experimental results was consistent across these two cultural contexts in New York City and Tokyo, those inductive potential beliefs may reflect different ways in which participants mobilized the four sexual orientation discourses. I heard a powerful resistance to sexual perversion and gender inversion discourses in New York City, a resistance enabled through both minority and postgay discourses of sexual orientation. Despite this postgay-voiced resistance, however, the consistency of experimental patterns suggests that a cultural incitement to individual expression entailed by mobilizing a minority discourse may have inhibited a complete rejection of essentialist thinking about sexual orientation categories. Contrasting with these New York findings, I encountered a different discursive environment describing Japan, one marked by the discursive silencing and erasure of non-heterosexualities through a gender inversion discourse voiced in tandem with a cultural ideology of privileging social conformity over the self-expression of individual identity. The discursive hold of an ideology of traditional
masculinity was evident in both contexts as well through participants’ attempted deconstruction of traditional masculine notions of men and their social roles. Yet the tenacity of this gender inversion discourse and the role of an ideology of traditional masculinity helps explain why both US and Japanese men in Study 1 drew more associations with the fictional Tom/Taro’s social roles regardless of that target’s object of sexual desire and romantic love, although a Japanese cultural ideology of sameness, in tandem with the discursive work of a powerful gender hierarchy, may have amplified this pattern for evaluation of the Taro character regardless of his attractions.

Considered together, findings from this mixed-method analysis not only implicate the presence of inductive potential beliefs about the sexual orientation categories “homosexual man” and “heterosexual man” but also the rich and complex ways those beliefs are discursively mobilized across cultural contexts and genders. While many of these discursive patterns were similar in both contexts, my thematic analysis suggests important differences in the ways sexual orientation discourses are mobilized within each cultural and gendered context. Ultimately, this complex pattern of similar yet not identical findings echo Plath (1992), who evocatively summarized: “don’t think of Japan as 180 degrees out from American life, where everything is different and everything is opposite. If anything, what is fascinating to me is that it’s 18 degrees different—not 180 degrees.” At the same time, these findings raised new questions for me about the role of gender and gender ideologies in these cultural contexts. The discursive work of a cultural ideology of diversity consequentially overlapping with US participants’ views concerning men and masculinity did not appear to be monolithic; recognition of this discursive site of tension seemed especially pronounced among participants of color, suggesting the need for a more in-depth analysis of ethnicity/race in New York City. In Japan, I heard a postgay-
voiced troubling of essentialist discourses of gender, not sexual orientation, suggesting the need to focus on the ways inductive potential beliefs about gender categories may consequently interweave with those of sexual orientation categories.

Limitations

Given the novel methodological approach I developed and applied in this dissertation project, it is incumbent on me to note several important limitations relevant to researchers considering any future application. I begin with limitations specific to the critical amalgam methodology I have proposed, noting issues specific to each of the design elements: the priming, impression formation task, Euler diagramming instrument, and peer interpretation of the generated Euler diagrams. I also discuss limitations specific to my ability to both interpret and generalize these findings from my comparative analysis of inductive potential beliefs in New York City and Tokyo.

Methodological limitations. The critical amalgam methodology I have developed and tested, for all its critical promise, is not an easy method to implement. Indeed, my choice of a critical approach required a familiarity with a host of critical traditions and domains, including: feminist theory, queer theory, poststructuralism and postmodernism, set theory and advanced procedures using generalized linear models. As such, the kinds of quandaries that someone using the method would need to work out cover a lot of disciplinary and methodological ground. I proceed to outline some of the major issues/quandaries I encountered in this project.

My introduction of minority discourse-based terminology in the priming materials—references to the labels “homosexual” and “heterosexual” men, as well as the term “gay”—was intended to prime an essentialist discourse of sexual orientation categories, as discussed. During my subsequent thematic analysis, however, I became aware that this priming did not account for
other essentialist discourses of sexual perversion or gender inversion, nor did my priming materials clearly reference a postgay discourse (e.g., “people identify their sexuality in many different ways these days”). While I used the subsequent practice Euler diagram exercise as a distraction task, it is still possible that Study 1 participants were utilizing one or more essentialist discourses of sexual orientation in their construction of their own Euler diagrams. My thematic analysis of the Japanese focus group responses, for example, implicates the potential role of a gender inversion discourse not only in the distinct cultural differences in participants’ beliefs about men and men’s roles generally but also in relation to the experimental manipulation.

My choice to deploy identity language in the impression formation task outcomes deserves critical attention as well. I deployed an identity framework intentionally as a way to further prime participants to think in terms of essentialist discourses of sexual orientation, given that essentialist discourses rely on categorical thinking about sexual orientation, often in terms of sexual identity. It may be reasonably argued that, by encouraging participants to define the fictional target’s sexuality in terms of an identity, however, this method commits the same conceptual mistake of scale-based approaches, in that participants are asked again to endorse the investigators’ identity attributions. However, the reader is encouraged to bear in mind that in the impression formation task participants are not provided with any definitional parameters for the sexual desire and romantic love identity labels—as discussed in Study 2, self-expression through identity may occur through any number of (non)essentialist discourses of sexual orientation. Nevertheless, and in light of the multiply imbricated ways Study 2 focus group participants engaged both essentialist (e.g., minority) and postmodern (e.g., postgay) sexual orientation discourses, this diagram instrument on its own remains insensitive to the different ways sexual orientation discourses are engaged and linguistically enabled in US and Japan concerning self-
expression and identity. Indeed, it is for this very reason that the thematic analysis in Study 2 was necessary for establishing the credibility of my interpretations of the Euler diagrammatic patterns. Future applications of this impression formation task consequently may benefit from alternatives to deploying identity language, particularly in terms of determining whether those alternatives lead to different ways focus group participants voice these multiply imbricated discourses of sexual orientation during follow-up credibility analyses. Priming essentialist thinking may be done in ways not limited to trait- and role-based identities. Still, I acknowledge that reliance on identity categories, whether state- or trait-based, is necessarily limiting—that is, any standardization for the purposes of group comparison and inferential statistics will necessarily constrict possibilities for participants’ impression formation.

Another methodological limitation concerns my practical reliance on a written performance of sexuality in the impression formation task vignette. While the use of Euler diagrams adds a new implicit application for capturing complex, discursively constructed beliefs, my design is essentially a “paper people study.” Prior research suggests that while vignettes selectively simulate elements of the research topics under study, a paper-based approach ultimately risks being perceived by participants as unrealistic as it can never mirror completely the reality and dynamism of people's lives. The very selection of material to be included gives priority to some elements of real life for study over others, rendering results less generalizable outside the context of particular vignette scenarios. Yet several scholars have also argued that

166 The results of some older research studies collectively suggest that assumption that participants inferred stable identities/traits may depend on culture. For example, Cousins (1989) found that US participants were more predisposed to do so than Japanese counterparts. It is unfortunately beyond the scope of the current dissertation to determine whether Study 1 participants, either within or between cultural contexts, distinguished between situational and trait-based assessment in the generation of their Euler diagrams.
when vignette responses are congruent with data obtained from other sources, such as from participants' own perspectives—reflecting my purpose in asking additional questions about participants’ personal and cultural views about sexuality in Study 2—then generalizability may be enhanced (Aguinis & Bradley, 2014; Hughes & Huby, 2002; Woehr & Lance, 1991).

My framing of the vignettes as diary entries was an attempt at such mundane realism, although given the ubiquity of social media use by contemporary young adults in both the US (Pew Research Center, 2018) and Japan (IREP, 2018), I would instead utilize the conceit of social media posts (e.g., blog posts or Instagram feeds) if using this method again.

A related issue concerns my reliance on a single vignette in this design. Hegarty and Massey (2006) recommended using multiple vignettes as that may allow investigators a means of assessing differential reactions to the target’s ways of enacting sexuality. Applied to the current critical amalgam methodology, multiple vignettes would allow for investigators to analyze patterns across individual participants’ mobilization of multiply imbricated discourses of sexual orientation, including the extent to which participants’ mobilization of essentialist discourses evidence preference for particular discourses.

Weber (1992) has cautioned, however that

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167 In their review of best practices in the use of experimental vignette designs, Aguinis and Bradley (2014) note that studies utilizing experimental vignettes are criticized for only showing that certain outcomes can happen but not necessarily that they do happen outside of the experimental situation. Accordingly, they note, researchers have called for greater attention to establishing the internal and external validity of experimental vignettes by enhancing the level of realism present in the stimulus presentation (Hughes & Huby, 2002; Taylor, 2006; Woehr & Lance, 1991). One recommendation to improve realism is to increase the level of immersion experienced by participants. For example, investigators might make use of audio, video, pictures, and other presentation methods that increase the realism of experimental vignettes (Green, Kriege, & Wind, 2001; Hughes & Huby, 2002).

168 Identity attributions may undergo subsequent revisions through an ongoing categorization process (Turner, 1968) or through exposure to different encounter conditions beyond the “first” and “zeroth” acts of initial impression formation (Mullaney, 1999; see also Hegarty & Massey, 2006; Turner, 1968). Future implementation of this impression formation task therefore ought to establish situational identity consistency as participants otherwise have no idea if the target’s
while not enough scenarios could limit the researchers’ ability to manipulate critical variables and could result in responses biased by the few issues contained in the scenarios presented, too many vignettes could lead to information overload and fatigue for the respondent. Applied to the current study, it remains an open question as to whether Study 1 participants would have mobilized these discourses in similar ways through their drawn Euler diagrams had the vignette not contained an element of conflict, for example. My concern, however, was that not including conflict may have led to the problem of unrealistic portrayal, particularly in the Japanese context where, as I learned from my thematic analysis, conflict-free representations of male same-sex sexuality are primarily associated with fantasy such as BL.

Limitations associated with the construction and analysis of the Euler diagram-based instrument, being developed and utilized for the first time in this dissertation project, warrant discussion. In limiting my operationalization of the Euler diagrams to four distinct outcomes of prominence, synthesis, permeation and association, I necessarily precluded other measurement possibilities (e.g., a more nuanced analysis of regions of union between select circular contours in the synthesis outcomes). At issue here is the fact that, unlike mathematically “closed” objects (e.g., standard rating scales) which have but one analytic possibility, this Euler diagram-based instrument allows for practically limitless outcome measures. However, precisely because of this freedom a comprehensive analysis of all possible outcomes is impractical if not impossible. The possibility exists that pertinent analyses may elude the investigator, a situation which places even greater emphasis on the need for a clearly defined and theoretically-driven rationale for each operational outcome—something I have attempted to provide in the current dissertation. Another question arises as to whether six is an ideal number of circles (sets) in the construction of each behaviors in the vignette are “in character” for that target.
Euler diagram. While my choice of this number reflected my desire to balance empirical richness with participants’ ability to handle complexity, I encourage investigators wishing to use this method to play with different configurations in future applications.169

More fundamentally, my decision to utilize Euler diagrams as discursive instruments necessarily introduces tensions between mathematical and formal linguistic interpretation. One potential weakness of the Euler diagram method concerns ambiguity between independence and mutual exclusivity. Mathematically, two events A and B are independent if the knowledge that one occurred does not affect the chance the other occurs; A and B are mutually exclusive events if they cannot occur at the same time (i.e., A and B do not share any outcomes). With these Euler diagrams, however, it is difficult to determine if any given participant intended for instances of non-overlap between identity circles to indicate mathematical independence, mutual exclusivity or both.170 Additionally, my operationalization of fuzzy set logic in my selection of Euler diagrams for development of this outcome instrument was achieved using regression techniques. While generalized linear models are amenable to critical approaches (Porpora, 2011) as well as

169 Generation of mathematically “closed” objects (e.g., ranked measures, Venn diagrams) impose budget constraints for participants. Investigators have noted since the 1970s how such constraints potentially interfere with laypeople’s ability to reproduce these objects in a mathematically coherent way. While Euler diagrams contain no such mathematical constraints, their generation can still be a cognitively demanding task for laypeople (Blake, Stapleton, Rodgers, Cheek, & Howse, 2014; Calvillo et al., 2006). I attempted to address this complexity through pilot testing, use of a sample exercise during the priming task, and again during participant debriefing immediately following data collection, but it remains an open question as to the appropriate limits investigators ought to set for the complexity of the diagrams.

170 One illustration of this ambiguity may be found in the practice Euler diagramming exercise following the priming task in Study 1. The provided diagram of the target Juan’s / Shigeru’s “self-concept” displays the identity circle “smoker” as not overlapping with any other identity circle. However, although this lack of overlap may implicate Juan’s / Shigeru’s identity as a smoker being separate from his other identities, it remains unclear whether this lay conceptual understanding should be translated mathematically in terms of independence or mutual exclusivity.
fuzzy sets when the analytic goal is prediction (Smithson & Verkuilen, 2006), alternative fuzzy set analytic techniques may differ in important ways from standard regression models (e.g., Katz, Vom Hau, & Mahoney, 2005; Smithson, 1987). As such, future analyses based on Euler diagrammatic outcome measures should also be investigated using alternative fuzzy set analytic procedures.

A final limitation of this critical amalgam methodology concerns the use of separate peer focus groups in the interpretation of the Euler diagrams. Inviting the original participants from Study 1 to provide their own interpretations on their process of generating diagrams would at first appear to have been a preferred strategy for establishing the credibility of my interpretations of the experimental findings from Study 1. However, I argue that whatever additional insights might be gained from such an approach must be balanced against the potentially fraught dynamics of intersubjectivity between participant and investigator. Whereas peer focus group participants have no obvious personal investment in investigators’ evaluations of diagrams with which they had no personal hand in producing, the same could not be said of the original participants. Unavoidable questions necessarily emerge concerning not only the truthfulness and forthcoming responses of participants in being asked to evaluate their own work, but also their ability to critically interpret that work in broader cultural context as I asked Study 2 focus group participants to do. As such, while a trade-off certainly exists, my capacity to establish the credibility of my interpretations from these focus group responses is arguably enhanced though the intersubjective distance afforded by work with a separate group representing peers of the participants generating the Euler diagrams in Study 1.

**Limitations to interpretation of findings.** Recruitment for the US samples in Studies 1 and 2 was broadly representative of ethnic groups in New York City and gender ratio in the
undergraduate education and psychology programs at Hunter College. Yet while New York City may be prototypical of trends and discourses in the US (Chauncey, 1994), this does not mean the city is representative of the United States as a whole. The Manhattan-based students recruited for these samples benefitted from decades of relatively liberal local attitudes toward diverse sexualities and city policies barring discrimination on the basis of sexual orientation and, more recently, gender identity (New York City Council, 2019). This liberal policy environment must be understood against other US regions, primarily the US South and its association with conservative sexual beliefs critical of non-heterosexualities, particularly gay men (Tilcsik, 2011). Indeed, US focus group participants in Study 2 themselves recognized this potential limitation concerning the geographic representativeness of New York City. The Japanese samples in Studies 1 and 2 similarly represented a reasonably broad diversity of Japanese regions as well, with the caveat that they were primarily representative of the Tokyo metropolitan area. Consequently, these findings must be understood as reflecting largely urban environments in both contexts.  

Apart from these broader issues of geographic and cultural representativeness, I recognize additional representational limitations specific to the current samples. While my decision to recruit college students reflects practical considerations, I also acknowledge a social psychological critique of the representativeness of college undergraduates to the larger population (Henry, 2008; McNemar, 1946; Sears, 1986). Additionally, the overrepresentation of women in the Study 2 sample may have obscured potential variation among men’s perspectives; this lack of representation was if anything exacerbated by the relatively short responses provided.

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171 I do not mean to suggest that rural areas in Japan should necessarily be expected to evidence different discursive environments. For example, Mano (2014) recently documented experiences of the social acceptance of gay males in rural areas of Japan.
by the men despite being vocal during the preceding focus group discussions. Furthermore, samples in New York and Tokyo mark particular points in space and historical time: data were collected just prior to major legal advances for openly LGBT people in the United States (e.g., the 2015 Supreme Court Obergefell v. Hodges ruling on same-sex marriage in 2015). Similarly, data collection in Japan occurred before the growing ubiquity of LGBT and minority language and discussion, including public discussion over legal recognition of same-sex sexuality increasingly ubiquitous in the national media (Brasor, 2016).

Another critical limitation entails my decision during development of the demographic questionnaire materials not to ask US participants in Study 1 about their own preferred sexual identification. My rationale came directly from the epistemological and theoretical imperatives of my critical approach, as I wished to avoid appearing to privilege a minority discourse of essential sexual orientations predicated on self-labeling through a demographic checklist containing essentialist sexual orientation categories. Consequently, I could not determine whether inductive potential beliefs might differ between heterosexual and queer members of this sample, nor to identify the ratio of one to the other. That said, subsequent data collection and analysis with a supplemental sample in New York in which I compared heterosexual and queer groups did not evidence any significant differences by experimental condition. In either case, I suggest my critical approach troubles assumptions that minorities and majorities necessarily engage sexual orientation discourses differently. Rather, I suggest that such assumptions conversely implicate researchers’ own immersion in a minoritizing paradigm on the basis of a dominant, essentialist research paradigm in contemporary psychology.

Finally, three issues specific to interpretation of these findings in US and Japanese contexts need to be noted. First, the simplistic true/false format of the Marlowe-Crowne Social
Desirability Scale has over the years been the target of multiple critiques. Specifically, several authors have pointed out that correlations between the MCSDS and instrument outcomes may not necessarily indicate participants’ differential responses to those instruments, either in the US (e.g., Johnson, Fendrich, & Mackesy-Amiti, 2012; McCrae & Costa, 1983) or Japan (Yoshino & Kato, 1995). Consequently, the results of my own use of this scale may not provide a valid assessment of actual social desirability during participants’ construction of their Euler diagrams. Future studies may be better served through the inclusion of newer methods for assessing social desirability (e.g., randomized response methods; Warner, 1965; for a review, see Blair, Imai, & Zhou, 2015). ¹⁷² Second, I did not define the target’s race or ethnicity in the vignette. While this was less of an issue in the Japanese context given the likely assumption among participants that the fictional Taro was himself Japanese, scholars have suggested that undefined target race is often assumed by US-based participants to be White, as Whiteness is unseen and unrecognized as relevant in the United States (Cole, 2008; McIntosh, 1989; Warner, 2008). As such, the experimental and focus group patterns I analyzed may not describe US focus group participants’ inductive potential beliefs about same-sex attracted men of color. In line with my previous methodological point about reliance on a single vignette, future investigations may wish to vary the ethnic and/or racial identity of the target across separate vignettes when working with US samples. Second, as with any cultural comparative design across multiple linguistic contexts, the role of language in the development of these materials must be interrogated. The English language is itself a key factor in globalization, and this dissertation reproduces this linguistic

¹⁷² These alternative methods for measuring social desirability have their share of limitations as well, however. For example, the randomized response method has come in for critique for confusing respondents to the point of noncompliance (Holbrook & Krosnik, 2010; Wolter & Preisendörfer, 2013).
Implications for Future Research

As I have reviewed, this mixed-method, critical amalgam methodological approach is not without challenges pertaining to its time-intensive nature, translation issues, and requirements for the researcher to be competent in the cultural contexts under investigation. Furthermore, researchers must be versed in relatively sophisticated quantitative and qualitative methods (on fuzzy set theory, see Smithson & Verkuilen, 2006; on qualitative methodologies, see Creswell, 2003; Ivankova et al., 2006). At the same time, this proposed methodology opens up new avenues for research into laypeople’s essentialist beliefs and beyond. Specifically, the findings from application of this methodology in the US and Japan hold important implications not only for our understanding of laypeople’s essentialist beliefs about sexual orientation but for methodology and cross-cultural research more generally. I discuss three implications for psychological research, each touching on theoretical, methodological and practical issues. First, I discuss the generalizability of this methodology to other social categories perceived to be inductively potent, in the process laying out what my alternative approach adds to the literature on essentialist beliefs and related critical areas in psychology. Next, I describe advantages of fuzzy set operationalization that combine set-based and scale-based thinking in a way that captures psychologically complex phenomena. Finally, I discuss how those methodological issues hold broader implications for cross-cultural research.

A role for discourse in essentialist beliefs research. Morton and Postmes (2009, p. 658) remind us that “essentialism can be more than a belief; it can also be an argument that is
expressed to support or deny particular forms of identity expression between the self and others.” Indeed, Hegarty (2018) notes that we enact our social identities when we hold and express particular essentialist beliefs. The critical idea here is a recognition of the dialogic relationship between target and observer, a relationship that allows for reconceptualization of essentialist beliefs not as cognitive “things” residing in our heads that we can “hold and express” (as Hegarty, 2018, puts it) but rather intersubjective discursive actions (D’Andrade, 1984; Spears, 1997; cf. Lippmann, 1922). Successful development and testing of my critical amalgam methodology points to empirical possibilities beyond a cognitive focus on investigating associations between essentialist beliefs and anti-homosexual attitudes. As reviewed previously, even psychologists investigating attitudes toward homosexuality have acknowledged the importance of also investigating the discursive consequences of those attitudes (e.g., Herek, 1986, 2000).

Consequently, future implementation of a critical amalgam methodology should expand beyond the current focus on inductive potential beliefs about sexual orientation categories to consider the ways beliefs about sexual orientation intersect with other cultural categories believed to derive their meaning from essence. As a starting point, my interpretations from Study 2 suggest a need to take inductive potential beliefs about gender more fully into account. Future impression formation tasks should be designed to include identity circles suggestive of feminine personality traits in line with gender inversion stereotypes about men. Although the body of research reviewed in this dissertation collectively suggests most negative attitudes and beliefs target male rather than female homosexuality (Baumeister, 2010; Diamond, 2003b, 2006a; Hammack, 2005), I acknowledge also a longstanding critique of an over-reliance of cross-cultural research in relation to male homosexuality (e.g., Blackwood, 1985). Rather than
this essentializing focus on male or female balance, however, the current methodology suggests instead a focus on the discursive ways the intersection of sexual orientation, gender norms and gender identity constitute sites of generative tension, such as beliefs among groups of women who identify as trans-exclusionary radical feminists (TERFs). Investigation of essentialist beliefs at the intersections of gender, sexual orientation and racial or ethnic categories may also prove a fruitful direction for future research (see Ghavami & Peplau, 2013; Herek & Capitanio, 1995; Nadal et al., 2010; Negy & Eisenman, 2005; Remedios, Chasteen, Rule, & Plaks, 2011).

It is also important to consider how this critical amalgam methodology may be applied to social psychological questions exploring beliefs about identity more broadly. For example, investigators might use this methodology to explore the inductive potential of culturally-defined—and often contested—social categories explored by past researchers such as religious affiliation (e.g., Evangelicals; Moran, Lang, & Oliver, 2007) or socio-economic class (e.g., the middle class; Robison & Stubager, 2018). Additionally, this discourse-based methodology holds promise for exploring not only the inductive potential of these and other culturally-defined social categories but also other dimensions of psychological essentialism that have to date received less attention. Rather than an “essential” view of such beliefs as unchanging or removed from a universe of discourse, investigators could further explore under what social conditions laypeople engage in essentialist thinking, as well as how such thinking may be engaged when evaluating a target discursively positioned at the intersection of multiple, inductively rich social categories (e.g., race, class, gender, religious affiliation). At the same time, investigators ought to consider that not all potential dimensions of psychological essentialism may be equally amenable to a critical approach grounded in discourse. As such, a discourse-based approach to inductive potential beliefs should not be viewed replacing but rather complementing other investigation of
essentialist beliefs, inclusive of more cognitive approaches (e.g., Haslam & Levy, 2006).

Essentialist beliefs continue to matter, both for theory and praxis. Leyens et al. (2000) emphasized the adverse effects of essentialist thinking, proposing that essentialized outgroups are often “infra-humanized.” Similarly, Yzerbyt and colleagues (1997) argued that essentialist beliefs legitimate and naturalize unequal social arrangements. According to these scholars, essentialist beliefs suspend existing social arrangements and protect the dominant positions of certain social groups. Postgay movements, informed by queer theory, challenge such minoritizing approaches by prioritizing subjectivity over identity categorization (Halperin & Traub, 2009; Queen & Schimel, 1997; Savin-Williams, 2005). The political consequences of such postgay moves have been mixed, however. At the level of international policy, a move away from arguments grounded in assumptions of essential sexual orientations and toward a more universalizing framework of human rights have proven more successful than previous approaches in the last decade (for discussion, see Yogyakarta Principles Plus 10, 2017). At the same time, however, these same approaches have to date remained otherwise marginalized at the level of national civil rights initiatives, where essentialist arguments have been at the center of the push for legal recognition of same-sex partnerships and marriage in the United States (e.g., Brief for Marriage Equality USA, 2015) and, more recently, Japan (Odanaka, 2018; Sasaki, 2017).

Discursive approaches to essentialist thinking also create a conceptual bridge with critical research on stereotyping, which conceptualizes stereotypes as ideological social products functioning to justify beliefs about group distinctions and social arrangements (Augoustinos & Walker, 1998; Jost & Banaji, 1994; Oakes et al., 1994; Wetherell & Potter, 1992).173 Left

173 Within a dominant social cognitive tradition, stereotypes are narrowly conceptualized as
unchecked, these stereotypes, much like essentialist thinking, can lead to a host of adverse consequences (e.g., Cox & Devine, 2014; Nadal, 2013). For example, Cox and Devine (2014) demonstrated that using a stereotypic cue to privately infer group membership freed perpetrators of prejudice from concerns about social condemnation for their prejudice, yielding higher levels of prejudice-based aggression. Even positively valenced stereotypes can have an invalidating effect to the extent those stereotypes reflect essentialist beliefs about social categories (Kay, Day, Zanna, & Nussbaum, 2013; Massey, 2010). It is an open empirical question as to whether these same findings might also hold true for holders of inductive potential beliefs about sexual orientation. Critical stereotyping work by Nadal et al. (2010) suggests they may well be, as the authors found that people’s stereotypic assumptions of a universal LGBTIQ+ experience—that is, the belief that all LGBTIQ+ people have the same experiences—act to invalidate the individual and personal experiences of sexually diverse people. While the authors caution that not all such assaults are deliberate, they can occur as microinvalidations and microinsults that may build up over time and lead to adverse mental health outcomes for LGBTIQ+ individuals. Investigation of the consequences of being the target of others’ inductive potential beliefs thus constitutes another avenue of further inquiry.

**Euler diagrams and operationalizing psychologically complex beliefs.** Another individualizing or group-focused cognitive schemas for simplifying or making meaning of reality (Fiske & Taylor, 1991; Turner et al., 1987; Turner & Reynolds, 2010; Oakes et al., 1994). However, other social psychologists have suggested that stereotypes do not reflect the internal characteristics of individual members of a group, but instead the “emergent properties of the social category as a whole” (Oakes et al., 1994, p. 193). This alternative conceptualization has led some cognitive psychologists to acknowledge that stereotypes “are [best conceptualized as] shared beliefs about person attributes” (Leyens et al., 1994). Augustinos and Walker (1998) argue, however, that if stereotypes rest on beliefs, it is important not to dilute the affective, symbolic and political ramifications of stereotypes as social and collective products which function ideologically by justifying and legitimizing existing social and power relations within a society.
reason for psychologists’ apparent reluctance to embrace more critical methods based in discourse may stem from perceived practical constraints on method. My ability to connect the complexly interwoven cultural and gendered discourses I heard in participants’ responses in Study 2 with the multiple cultural and gendered quantitative patterns from Study 1 was made possible through the Euler diagramming instrument. Yet the implications of Euler diagrams for critical social psychological research potentially go well beyond that of this critical amalgam methodology and the study of inductive potential beliefs. There is a long-standing tradition in psychology of treating discrete, nominal constructs as if they are mutually exclusive categorical sets and continuous ones as if they are quantified scales. These standard approaches to variable operationalization have meant that psychologists usually turn first to scale construction for continuous measures. However, as some psychological outcomes have both a categorical and a dimensional character, these standard approaches may not always suffice. An approach instead grounded in set theory, particularly fuzzy sets, provides an alternative for capturing both dimensions (Smithson & Verkuilen, 2006). Central to the idea of the sets comprising Euler diagrams is emergence, both mathematically and discursively, wherein complex ideas are actively constructed from simpler elements. I argue that these features uniquely position the Euler diagram as a constructivist data collection tool amenable to both quantitative and qualitative analytic strategies, affording investigators a potential wealth of analyzable data.

Reliance on Likert-type scales, an understandable technological limitation at the time of their development in the 1920s, is less tenable in a contemporary age when a move to Euler diagrammatic methods is not only possible but imminently feasible, both in terms of their production and analysis. The current Euler diagram-based instrument is not the first instrument to take a fuzzy set-based approach to attitudes/beliefs (e.g., Hesketh, Pryor, Gleitzman, &
The evolution of user-friendly computer technologies in the intervening years make it possible to bring fuzzy set-based methods more fully into psychometric evaluation, including recent advances in computer-assisted Euler diagrams using ellipses (e.g., Micallef & Rodgers, 2014). However, most current programs are designed to convert numerical data to Euler diagrams, not the reverse. Future development of participant-generated Euler diagram-based computer applications would make it possible for investigators to provide participants with opportunities for responses not limited to language-based expression. Such applications would also benefit investigations with individuals and groups whose native language differs from that of the investigators or when asking respondents to relay complex ideas that are difficult to verbalize. With the growing interest in visual methods in social research (Spencer, 2010), psychologists working across cultural contexts may particularly benefit from this intuitively accessible and visual medium.

While fully computerized measurement would be an ideal approach for the sake of precision, the goal of fully automated hand-drawn sketch analysis remains a complex task as different participants can draw the same figures with a different sequence, shape, size or orientation. Recent innovations have led to more advanced sketch recognition software, primarily in particle size estimation in the fields of medicine, biology and neuroscience (Merkus, 2009). However, such systems were unfortunately beyond the budget of this current dissertation project; consequently, I opted for computer-assisted, manual measurement.

Such computer-based applications have begun appearing in recent years. The first automatic drawing methods to use circles were developed for area-proportional Venn diagrams with two (Chow & Ruskey, 2004) and three (Chow & Rodgers, 2005) (known as 3 Circle Venn) curves. These were then used in areas such as medicine and healthcare. Various other methods were later developed, including: BioVenn (Hulsen, de Vlieg, & Alkema, 2008); Venn Diagram Plotter [http://omics.pnl.gov/software/VennDiagramPlotter.php]; R packages, Vennerable [https://r-forge.r-project.org/projects/venerable] and venneuler (Wilkinson, 2012); Google Venn Charts [https://developers.google.com/chart/image/docs/gallery/venn_charts]; Stata’s PVENN [http://ideas.repec.org/c/boc/bocode/s457368.html]; SAS macro (Shiqun, 2009); Matlab’s VENN [http://www.mathworks.com/matlabcentral/fileexchange/22282-venn] and vennX [http://www.mathworks.com/matlabcentral/fileexchange/6116-proportional-venn-diagrams]. Excluding venneuler, all of these methods draw area-proportional Venn diagrams with two or three circles; most are simple variants of the first devised method for three curves (Chow & Rodgers, 2005).
**Methodological and practical implications for cross-cultural research.** A major goal of cross-cultural research is standardization in implementation of methods across cultural contexts. A fundamental issue gleaned through a critical psychological lens of constructed representations, however, concerns how a focus on instrument standardization distracts from how researchers are applying concepts and developing methodological tools to address interlocking complexities (Spector, Liu, & Sanchez, 2015), particularly concerning the meanings people within and across cultures associate with sexuality (Agocha et al., 2014). Discourses that cannot be scientifically reduced are problematic for researchers who want to provide a universal account of behavior; yet uncritical applications of universalizing cognitive approaches are often tantamount to an act of discursive colonization or even epistemological violence (Teo, 2010).

From the critical perspective on culture I have adopted in this project, approaches predicted on localization of standardized scale-based forced-response items constrain participants to interact with institutionalized disciplinary representations of sexuality. These decontextualized scale items, however, fail to address questions of how and why those beliefs are utilized (Ratner, 1997), while any meaning behind participants’ disagreement is also left undefined (Hacking, 1995). If the content and meaning of laypeople’s beliefs about sexuality and sexual orientation are not fixed but rather reflect “shifting constellations of cultural meaning” (Phlugfelder, 1999, p. 335), from a critical perspective researchers ought to carefully consider the consequences of this variability for the application and interpretation of cross-cultural assessment using forced-response scale-based instruments grounded in the cultural positionalities of the investigator.

My thematic analysis of the different ways laypeople mobilize multiply imbricated discourses of sexual orientation strongly suggest that Japan-US comparisons are not simple but rather constituted through the complex transnational flow of multiple sexual orientation
discourses. Yet these findings have implications for the interdisciplinary comparative study of cultures beyond a comparison of US and Japanese contexts, implicating as well a broader “east/west” binarism still dominate in social psychology and other areas of the social sciences. In social psychology, this essentialist thinking about east/west cultural differences has been most readily apparent in cognitive theories that rest on conceptualizations of mutually exclusive cultural values at opposite ends of a spectrum, most notably those of independent and interdependent self-construals (Kitayama & Markus, 1995; Kitayama, et al., 1997; Markus & Kitayama, 1991); and cultural distinctions in individualism and collectivism (Hofstede, 2001; Hofstede, Hofstede & Minkov, 2010; Nisbett, 2003; Triandis, 1988, 1989, 1995; cf. Oyserman, Coon, & Kemmelmeier, 2002; Schwartz, 1991; Voronov & Singer, 2002). By contrast, a critical approach already allows for a troubling of this essentialist narrative of East-West cultural

176 It is important to note that an east/west binarism owes its conceptual existence to comparisons between the US and Japan, however. What started as a laudable attempt to understand the failure of a Western individualistic model of self in Japan became an essentializing and dividing approach, of Othering Japan in relation to the US. One legacy is a school of thought or cluster of discourse usually referred to as *Nihonjinron* (literally, theory of Japanese people) but more comprehensively known as the thesis of Japanese cultural uniqueness. The development of *Nihonjinron* may be understood in light of the history of US occupation following World War II. It is difficult to underplay the influence of early American scholars of Japanese culture on both US- and Japan-based scholarship on an east/west binarism, particularly Ruth Benedict’s useful if deeply flawed work, *The Chrysanthemum and the Sword* (1946). Benedict’s role in the US-led General Headquarters, Supreme Commander for the Allied Powers (GHQ/SCAP) was primarily to understand the psyche of a defeated Japanese people for the benefit of American foreign policy interests (see Nakamura, 2007). Scholars argue that Benedict’s work and the countless studies it has spawned perhaps reveal more, in a kind of reverse ethnography, about US culture in its relationship to Japan, juxtaposing an American psychological “unity” and “absoluteness” that created the concept of a Japanese psychological “duality” borne of strict hierarchical social relations (Kuwayama, 2004). This work was taken up in later years by Takeo Doi’s corpus on the uniqueness of Japanese psyche, rekindled by culture-and-personality school anthropologists (e.g., Doi, 1973/1981, 1985; Caudill & Doi, 1963). In a curious bit of historical coincidence, the psychologically and psychiatrically charged direction of Doi’s research took the psychiatric ward as synonymous with Japanese society in much the same way as early psychiatric research did with the social “problem” of homosexuality.
differences as overly simplistic. Critical interdisciplinary voices instead advocate a more nuanced perspective of culture, particularly when comparing US and Japanese cultural contexts (Gjerde & Onishi, 2000; Kondo, 1990; Matsumoto, 1999; McClelland, 2015; Takano & Osaka, 1999; Yamagishi, 1988a, 1988b).

Understanding laypeople’s culturally located beliefs about sexual orientation is not simply an academic matter, either. Despite cross-cultural evidence that attitudes toward homosexuality have consistently and significantly improved in most countries over the past several decades (Smith et al., 2014), the years since my data collection on this project have reflected, if anything, a rapidly worsening global situation for individuals and groups identifying as (or identified as) sexual minorities. Amidst the intermingling of conflicting beliefs enabled through the growth of globalization, communication technologies, and increased migration due to regional conflicts, evidence has mounted of continuing animus, and even rising pushback, toward non-heterosexualities in many world regions (Blondeel et al., 2018; UNOHCHR, 2015). Transnational flows do not always work in favor of sexual dissidents: many of these arguments may reflect the scapegoating of sexuality for political gain and the maintenance of existing power structures by state actors (Weiss & Bosia, 2013), a rather devious, not to mention epistemologically promiscuous, means of “weaponizing” social constructionist arguments to

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177 The outbreak just this year of moral panics around men’s same-sex sexuality in Yogyakarta, Indonesia (Knight, 2019)—the site for the drafting of one of the most progressive universal human rights frameworks (Yogyakarta Principles, 2007, 2017)—serves as a bellwether for this recent rise of violence and intolerance. Other examples include the island of Bermuda, which had the distinction of becoming the first jurisdiction in the world to reverse same-sex marriage (Specia, 2018). For the first time since they began tracking in 2014, GLAAD (2018b) found a decrease in acceptance of LGBTQ people in the US. Attempts to enshrine discrimination through state and US federal legislation continue, most recently embedded within a repurposed discourse of religious freedom (Michaelson, 2013). Reports of homophobic violence continue to be reported even in nations, like the Netherlands, recognized for the most expansive legal recognition and protections in the world (Human Rights Watch, 2017).
deny the existence of sexual orientation while persecuting citizens on the basis of it (Hegarty, 2018; Sedgwick, 1990). For these reasons and more, critical researchers have a theoretical, methodological, and moral obligation to get at the heart of laypeople’s beliefs about sexual orientation.

**On Hedgehogs and Foxes: Some Final Thoughts**

The genesis of this dissertation lay in my desire to answer a call among more critically-oriented psychologists for more social construction-informed methodologies for understanding sexuality in global contexts (Agocha et al., 2014; Hostetler & Herdt, 1998; Pettit & Hegarty, 2014; Taylor, 2002). As I reviewed the literature in Chapter 1, however, it became increasingly clear that for all the theoretical and methodological advantages critical, social constructionist approaches possess, these approaches have achieved little traction in mainstream psychological research on sexuality. Why this state of affairs persists despite decades of theory—and advocacy—does much to implicate the “tedious debate” between essentialists and constructionists over the narrow topic of the ontology of sexuality (Weeks, 2000; see also

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178 State government arguments targeting constructs of sexual orientation and sexuality themselves as neocolonial projects of Western states promulgate prejudice under the guise of supporting indigenous “traditional values” or “religious freedom” to justify continuing crackdowns on sexual dissidents within their jurisdictions (Itaborahy & Zhu, 2014). Even as activists and sympathetic governments alike increasingly avoid grounding their arguments in the sexual identity-based language of “LGBT,” opting instead for the more expansive yet purposefully ambiguous “sexual orientation and gender identity” (SOGI) (Yogyakarta Principles, 2007, 2017), less sympathetic state actors have increasingly adopted a strategy of “weaponizing” social constructionist arguments to paint non-heterosexualities as postcolonial discourses infringing on national sovereignty and identity while at the same time eliminating sexual dissidence at home (Hussein, 2017; UNHRC, 2018). One recent example involves official state denials of documented mass kidnappings, detentions and disappearances of gay men in Chechnya beginning in 2017, on the premise that no gay men exist there as “gay” is portrayed as an unfortunate phenomenon of a decadent West (OSCE, 2018).
Halperin, 1990; Sedgwick, 1990). While this lack of traction led some to conclude social construction had little in the way of “constructive” insights for psychologists (Smith, 1994; cf. Gergen, 1994), I discern rather the role of historical vicissitudes. In the area of what has come most recently to be known as the psychology of sexual orientation and gender diversity, this largely esoteric debate over essentialism/social construction, and in more recent decades queer theory, has largely taken a back seat to the discipline’s politically and pragmatically motivated engagement with a sexual identity-based rights movement primarily concerned with combatting heterosexism, sexual prejudice and social stigma.

Critical scholars nevertheless remain bent on advocating for the replacement of cultural essentialist approaches with social constructionist methods—the same argument that has done little to sway a mainstream of psychologists outside this relatively small contingent. The question must therefore be asked: might there be more effective ways for social constructionist methods to infiltrate the broader discipline? I take inspiration here from Isaiah Berlin (1953), who, in his essay on Leo Tolstoy and the philosophy of history, used the metaphor of a “hedgehog” and a “fox” to make conceptual distinctions between two philosophical approaches to the world. He describes hedgehogs as those who use, indeed insist on, a single idea or organizing principle to view the world. Foxes, on the other hand, incorporate a type of pluralism and view the world through multiple, sometimes conflicting, lenses, for both epistemological (e.g., Einstein, 1949) and practical (e.g., Treichler, 1987) reasons. If prior efforts to wholly supplant dominant, essentializing approaches in psychology with a coherent and all-encompassing social constructionist paradigm reflect the hedgehog’s approach, the fox’s strategy might entail a more nuanced openness to compromise. The critical-social-psychologist-as-fox might therefore consider: rather than forcing what would be tantamount to a paradigm shift—
attempting to replace an essentialist paradigm with one of social construction—perhaps a more
generative alternative is to work within these ultimately inevitable and irreducible tensions
(Sedgwick, 1990). The “antiparadigmatic” state of critical psychology, and its ability to
hybridize different theoretical traditions, geographical locations, and variety of methods, position
it as a promising vehicle for accomplishing this task (Teo, 2015, p. 250).

Methodologies for bringing sexuality into intersection with culture hold promise as a
way to bring social constructionist approaches further into mainstream psychological research on
sexual orientation without necessarily demanding it supplant currently dominant approaches. My
solution in this dissertation at living in these tensions ultimately involved my construction of an
amalgam approach—not just of methods but also of epistemologies and theories both positivistic
and constructionist. My “strategic” approach to social construction in this dissertation has not
been entirely satisfactory, locating it as I do “somewhere” between Kitzinger’s (1995) distinction
between its “weak” and “strong” forms. Maintaining a generative tension between these two
extremes proved my most formidable challenge given my personal predilection for
perfectionism. Throughout this dissertation process, however, I have gained a new appreciation
for the productive possibilities entailed by an embrace of an uncertainty fundamental to a critical
psychological position. Besides, if quantum physicists can live with the uncertainty of
Schrödinger’s cat, the least I can do is play the part of Berlin’s fox.
APPENDIX A: Testing Assumption of Single US Sample

Prior to analyses of these outcomes, I first examined whether score distributions between undergraduate psychology (n = 159) and education (n = 49) students at the US recruitment site differed. As continuous outcomes represented both ordinal and bounded interval-based data, I opted to use nonparametric Mann-Whitney $U$ tests for group comparisons. Results across the eight continuous outcome variables investigated failed to support the presence of independent groups (see Table 14). Furthermore, Pearson chi-square tests did not detect independence between these two subsamples among any of the six binary outcome variables investigated (see Table 15). While these null findings are statistically inconclusive, this consistent trend across outcomes is highly suggestive that undergraduate psychology students do not meaningfully differ from undergraduate education students in this US-based subsample. I therefore collapsed these two subsamples for all subsequent Study 1 analyses.
Table 14

Summary of Education and Psychology subsample medians and nonparametric Mann-Whitney *U* significance tests (n = 208): Ordinal and continuous outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mdn_{eda}</th>
<th>Mdn_{psych}</th>
<th>Mann-Whitney <em>U</em></th>
<th><em>P</em> (two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prominence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sexual desire +</td>
<td>.22</td>
<td>.24</td>
<td>3659.00</td>
<td>.52 ns</td>
</tr>
<tr>
<td>romantic love</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sexual desire</td>
<td>.09</td>
<td>.11</td>
<td>3788.00</td>
<td>.77 ns</td>
</tr>
<tr>
<td>romantic love</td>
<td>.10</td>
<td>.10</td>
<td>3681.00</td>
<td>.56 ns</td>
</tr>
<tr>
<td>Synthesis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sexual desire</td>
<td>.27</td>
<td>.24</td>
<td>3732.50</td>
<td>.66 ns</td>
</tr>
<tr>
<td>romantic love</td>
<td>.27</td>
<td>.21</td>
<td>3329.50</td>
<td>.13 ns</td>
</tr>
<tr>
<td>Permeation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sexual desire +</td>
<td>1</td>
<td>1</td>
<td>3408.00</td>
<td>.15 ns</td>
</tr>
<tr>
<td>romantic love</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sexual desire</td>
<td>2</td>
<td>1</td>
<td>3575.00</td>
<td>.36 ns</td>
</tr>
<tr>
<td>romantic love</td>
<td>2</td>
<td>2</td>
<td>3632.00</td>
<td>.45 ns</td>
</tr>
</tbody>
</table>

*Note.* Mdn_{eda} = median value for education subsample; Mdn_{psych} = median value for psychology subsample; ns = not statistically significant.
Table 15

Summary of Education (n = 49) and Psychology (n = 159) subsample frequencies and Pearson’s chi-square significance tests: Dichotomous outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Freqedu (%)</th>
<th>Freqpsych (%)</th>
<th>Freqtotal (average %)</th>
<th>$\chi^2$</th>
<th>$P$ (two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sexual desire U romantic love</td>
<td>36 (73.5)</td>
<td>119 (74.8)</td>
<td>155 (74.5)</td>
<td>0.04</td>
<td>.85</td>
</tr>
<tr>
<td>sexual desire U son in family</td>
<td>7 (14.3)</td>
<td>16 (10.1)</td>
<td>23 (11.1)</td>
<td>0.68</td>
<td>.44</td>
</tr>
<tr>
<td>sexual desire U college student</td>
<td>8 (16.3)</td>
<td>26 (16.4)</td>
<td>34 (16.3)</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>sexual desire U baseball team member</td>
<td>6 (12.2)</td>
<td>16 (10.1)</td>
<td>22 (10.6)</td>
<td>0.19</td>
<td>.61</td>
</tr>
<tr>
<td>romantic love U college student</td>
<td>10 (20.4)</td>
<td>27 (17.0)</td>
<td>37 (17.8)</td>
<td>0.30</td>
<td>.67</td>
</tr>
<tr>
<td>romantic love U worried</td>
<td>28 (57.1)</td>
<td>88 (55.3)</td>
<td>116 (55.8)</td>
<td>0.05</td>
<td>.87</td>
</tr>
</tbody>
</table>

*Note.* Freqedu = frequency of intersection for education subsample; Freqpsych = frequency of intersection for psychology subsample; ns = not statistically significant.
APPENDIX B: US Supplemental Data Analysis

A critically reconstructed theory of psychological essentialism suggests that culturally shared discourses of sexual orientation drawn upon by participants should be similar regardless of participants’ sexual identification. Nevertheless, whether participants’ (non)heterosexual sexual and/or (non)cisgender identity moderates their mobilization of these cultural discourses remains an empirical question. I therefore recruited a separate sample of participants at the same New York City site as a means of investigating whether participants’ beliefs in the inductive potential of sexual orientation categories depended on their membership in the categories depicted. I utilized a quasi-experimental design to compare non-queer (i.e., cisgender, heterosexual) and queer-identified groups across the prominence, synthesis, permeation and association regression outcomes.

Participants

A total of 179 participants completed data collection procedures. I opted to utilize a conservative listwise deletion strategy during screening. I screened out 44 responses for the following reasons: 19 participants indicated having been raised fully outside the US (or not indicated); 6 did not fall within the target age range (i.e., over 25 years of age); 12 indicated lack of fluency in English language; and 2 participants did not indicate sexual orientation. The final US supplemental sample largely mirrored that of the Study 1 sample and consisted of students recruited from the Hunter College (CUNY) Department of Psychology (n_{supplemental} = 135; M_{age} = 19.19, SD = 1.52, range = 18-25). A total of 70 participants identified as non-queer (i.e., cisgender, heterosexual) (M_{age} = 18.83, SD = 1.34), while a total of 65 participants identified as
 Of the queer subsample, participants identified as: bisexual (n = 28, 43.1%); questioning (n = 18, 27.7%); gay (n = 6, 9.2%); asexual (n = 5, 7.7%); pansexual (n = 4, 6.2%); queer (n = 3, 4.6%); and lesbian (n = 1, 1.5%). In terms of gender, participants identified as women (n = 42, 64.6%), men (n = 21, 22.4%), and genderqueer (n = 2, 3.1%).

In terms of ethnicity, participants identified as: Black (n = 15, 11.1%); Latino/Hispanic (n = 36, 26.7%); White (n = 32, 23.7%); Asian/Pacific Islander (n = 39, 28.9%); Middle Eastern (n = 5, 3.7%); Mixed ethnicity (n = 6, 4.4%); other (n = 2; 1.5%). Most US participants were born in the US, although 23 (17.0%) were born outside the US; all participants in the final sample were raised in the US, although 9 (6.7%) indicated being raised in part abroad. All participants resided in New York at the time of data collection. The majority of participants indicated previous contact with a gay man (n = 117, 86.7%); of these, 49 (41.2%) indicated a close relationship while 50 (42.0%) indicated a “somewhat close” relationship and 20 (16.8%) indicated they were “not very close” to the gay man (or men) they knew. All US participants reported fluency in English (see Table 16 for full demographics, including a breakdown by queer and non-queer identification).

Preliminary Analyses

Social desirability. Prior to analyses I also explored the potential presence of patterns in social desirability in responses to the Marlowe-Crowne Social Desirability Scale (MCSDS) across the two predictors. Out of the full US supplemental sample (N = 135), 8 participants indicated extreme scores (i.e., values of 0 or 13) (queer = 2; 5.9% of total US supplemental sample); these cases were retained for all analyses. I next investigated missing MCSDS data for evidence of significant associations with other study variables. A total of 4 participants each
represented a missing item response (queer = 4; 3.0% of total sample). As this outcome evidenced less than 5% missing data in both the non-queer and queer subsamples, and as subsequent analyses determined the pattern of missing data was completely at random (MCAR) (i.e., no associations between missing data and other values in the data set, missing or observed), I proceeded to impute values for these missing MCSDS responses using the method described in Chapter 4.

The distribution of MCSDS scores did not evidence any significant deviation from normality (skewness = -0.10, kurtosis = -0.49); further, the scale evidenced an acceptable degree of reliability in this sample (Cronbach \( \alpha = .72 \)) (George & Mallery, 2003; Kline, 2000). A subsequent 2 (experimental condition) x 2 (queer identification) factorial ANOVA did not reveal a significant difference in social desirability in terms of either experimental condition \( (F(1, 131) = 0.548, p = .46, \eta_{\text{partial}}^2 = .004) \) or queer identification \( (F(1, 131) = 1.24, p = .27, \eta_{\text{partial}}^2 = .01) \). However, these nonsignificant main effects were qualified by a significant interaction between experimental condition and queer identification, \( F(1, 131) = 4.28, p = .04, \eta_{\text{partial}}^2 = .03 \). Specifically, while non-queer participants \( (M = 5.76, SD = 3.36) \) scored slightly higher than their queer-identified peers \( (M = 5.28, SD = 2.91) \) in the OSA condition, this pattern was reversed in the SSA condition such that non-queer participants \( (M = 5.09, SD = 3.02) \) scored slightly lower than their queer-identified peers \( (M = 6.70, SD = 2.19) \). This significant interaction between experimental condition and queer identification may be a statistical artifact, however, given the small effect size (reflecting a mean group difference of less than 2 points on this 13-point scale) (see Figure 15). Despite this statistically significant interaction, MCSDS scores still fall well within acceptable values across conditions, leading me to conclude that social desirability was not a significant factor in the completion of the former impression formation task.
Assumptions testing for GLM models. For all continuous outcomes (i.e., prominence, synthesis and permeation) absolute skew values were less than 3, while absolute kurtosis values were less than 10, indicating acceptable deviation from a normal distribution (DeCarlo, 1997; Kline, 2005). Bivariate correlations using Kendall’s tau-b ($\tau_b$) nonparametric tests between these continuous outcomes did not evidence any instances of multicollinearity (Table 17).

Results

No regression model evidenced better fit than the intercept-only model for either prominence (sexual desire + romantic love) or prominence (romantic love) outcomes. Similarly, no regression model evidenced better fit than the intercept-only model for either permeation (sexual desire + romantic love) or permeation (romantic love) outcomes. Finally, either the synthesis (sexual desire) or synthesis (romantic love) outcomes evidenced better fit than the intercept-only model. However, two outcomes did evidence a better fit for the main-effects model: prominence (sexual desire) and permeation (sexual desire). I detail these two analyses below. (For a complete list of prominence, synthesis and permeation outcomes, see Table 18).

Prominence (sexual desire). The main effects-only model for the prominence (sexual desire) outcome evidenced significantly better fit than the intercept-only model ($\chi^2 = 7.44, p = .02$). However, a model containing the interaction between experimental condition and queer status did not provide significantly better fit ($\chi^2 = 1.36, p = .24$). As such all analyses were subsequently performed on the main effects-only model. No significant main effect was found for experimental condition; $B_{\text{back}} = .49$, $SE_{\text{back}} = .53$, $p = .79$, 95% CI$_{\text{back}}$. [.43, .55]. However, queer identified participants ($M = .14$, $SD = .10$) drew larger sexual identity circles compared to
non-queer identified participants \( (M = .10, SD = .07) \); \( B_{\text{back}} = .59, SE_{\text{back}} = .53, p = .007, 95\% \text{ CI}_{\text{back}} [.53, .64] \). That is, compared to their non-queer peers, queer-identified participants generally evaluated sexual desire as more important for the target, regardless of the target’s perceived sexual orientation.

**Permeation (sexual desire).** While the main-effects only model for the permeation (sexual desire + romantic love) outcome did not evidence significantly better fit than the intercept-only model \( (\chi^2 = 3.58, p = .17) \), investigation of the main effects-only model suggested a trend such that participants in the SSA condition \( (M = 1.86, SD = 1.16) \) drew larger sexual identity circles compared to participants in the OSA condition \( (M = 1.51, SD = 0.91) \); \( B_{\text{back}} = 1.22, SE_{\text{back}} = 1.11, p = .06, 95\% \text{ CI}_{\text{back}} [0.99, 1.50] \). While this trend may well be due to random error, it bears reporting insofar as this trend conforms with hypothesized direction of this group difference. No significant main effect was found for queer identification; \( B_{\text{back}} = 1.15, SE_{\text{back}} = 1.11, p = .18, 95\% \text{ CI}_{\text{back}} [0.94, 1.42] \).

**Association.** A full summary of frequencies and percentages for each association outcome is displayed in Table 19. I did not run regression models for outcomes where one or more cross tabulation cells had fewer than five cases.  

\(^{179}\) Of the remaining outcomes, none of the regression models evidenced better fit than the intercept-only model; consequently, no analyses were possible.  

\(^{180}\) One exception concerned the sexual desire ∩ good student outcome. As with

\(^{179}\) Consequently, I did not analyze two additional outcome variables of theoretical interest—sexual desire ∩ son in the family; and sexual desire ∩ baseball team member—due to the presence of zero cell counts.

\(^{180}\) These included the following association outcomes: sexual desire ∩ romantic love \( (\chi^2 (2, n = 135) = 0.77, p = .68, R^2_{\text{Nagelkerke}} = .01) \); sexual desire ∩ worried \( (\chi^2 (2, n = 135) = 2.64, p = .27, R^2_{\text{Nagelkerke}} = .03) \); romantic love ∩ worried \( (\chi^2 (2, n = 135) = 0.28, p = .87, R^2_{\text{Nagelkerke}} = .003) \); romantic love ∩ son in the family \( (\chi^2 (2, n = 135) = 2.33, p = .31, R^2_{\text{Nagelkerke}} = .03) \); and romantic love ∩ good student \( (\chi^2 (2, n = 135) = 0.79, p = .67, R^2_{\text{Nagelkerke}} = .01) \).
the other association outcomes, the main effects model did not evidence better fit than the intercept-only model ($\chi^2 (2, n = 135) = 4.07, p = .13, R^2_{Nagelkerke} = .05$). Despite poor model fit, however, I noticed a trend indicating that the experimental condition might have an effect in the hypothesized direction; $b = 0.93$, SE = 0.48, $p = .05$, OR = 2.53, 95% CIOR [1.00, 6.39]. I did not detect a similar effect for queer identification; $b = 0.05$, SE = 0.46, $p = .92$, OR = 1.05, 95% CIOR [0.43, 2.57].

**Conclusion**

As no interactions were found between (non)queer identification and experimental condition in this supplemental analysis, I conclude that any effect of such identification is unlikely to have significantly altered the experimental patterns detected in the primary analysis. While the prominence (sexual desire) finding in this supplemental analysis may suggest the existence of group differences along lines of sexual orientation and gender identity in the US in evaluating the importance of sexual desire for evaluating target others, it must be placed in the context of the primary cultural comparative analysis also. Specifically, while such a group difference may exist in this US context, attempts to control for this difference through isolating the US sample to non-queer identified participants alone would likely only accentuate the cultural gap between the US and Japan detected in the primary analysis.
Table 16

Participant demographics for US Sample (US Supplemental Data; N = 135)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Non-Queer (n = 70)</th>
<th>Queer (n = 65)</th>
<th>Total (N = 135)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Gender Identification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>17 (24.3)</td>
<td>21 (22.4)</td>
<td>38 (28.1)</td>
</tr>
<tr>
<td>Female</td>
<td>53 (75.7)</td>
<td>42 (64.6)</td>
<td>95 (70.4)</td>
</tr>
<tr>
<td>Genderfluid / Genderqueer</td>
<td>—</td>
<td>2 (3.1)</td>
<td>2 (1.5)</td>
</tr>
<tr>
<td>Race / Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>5 (7.1)</td>
<td>10 (15.4)</td>
<td>15 (11.1)</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>18 (25.7)</td>
<td>18 (27.7)</td>
<td>36 (26.7)</td>
</tr>
<tr>
<td>White</td>
<td>18 (25.7)</td>
<td>14 (21.5)</td>
<td>32 (23.7)</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>24 (34.3)</td>
<td>15 (23.1)</td>
<td>39 (28.9)</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>2 (2.9)</td>
<td>3 (4.6)</td>
<td>5 (3.7)</td>
</tr>
<tr>
<td>Mixed ethnicity</td>
<td>1 (1.4)</td>
<td>5 (7.7)</td>
<td>6 (4.4)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (2.9)</td>
<td>—</td>
<td>2 (1.5)</td>
</tr>
<tr>
<td>Birthplace</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>61 (87.1)</td>
<td>51 (78.5)</td>
<td>112 (83.0)</td>
</tr>
<tr>
<td>Central/South America</td>
<td>4 (5.6)</td>
<td>7 (10.8)</td>
<td>11 (8.2)</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>2 (2.8)</td>
<td>—</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>West Asia</td>
<td>1 (1.4)</td>
<td>1 (1.5)</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Northeast Asia</td>
<td>1 (1.4)</td>
<td>3 (4.6)</td>
<td>4 (2.9)</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>1 (1.4)</td>
<td>2 (3.0)</td>
<td>3 (2.2)</td>
</tr>
<tr>
<td>South Asia</td>
<td>—</td>
<td>1 (1.5)</td>
<td>1 (0.7)</td>
</tr>
<tr>
<td>Raised</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York State</td>
<td>55 (78.6)</td>
<td>52 (80.0)</td>
<td>107 (79.3)</td>
</tr>
<tr>
<td>Other US state</td>
<td>11 (15.7)</td>
<td>8 (12.3)</td>
<td>19 (14.0)</td>
</tr>
<tr>
<td>US and abroad</td>
<td>4 (5.7)</td>
<td>5 (7.7)</td>
<td>9 (6.7)</td>
</tr>
<tr>
<td>Prior acquaintance with a gay man?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>57 (81.4)</td>
<td>60 (92.3)</td>
<td>117 (86.7)</td>
</tr>
<tr>
<td>No</td>
<td>12 (17.1)</td>
<td>5 (7.7)</td>
<td>17 (12.6)</td>
</tr>
<tr>
<td>No answer</td>
<td>1 (1.4)</td>
<td>—</td>
<td>1 (0.7)</td>
</tr>
<tr>
<td>If yes, how close?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very close</td>
<td>18 (30.5)</td>
<td>31 (51.7)</td>
<td>49 (41.2)</td>
</tr>
<tr>
<td>Somewhat close</td>
<td>25 (42.4)</td>
<td>25 (41.6)</td>
<td>50 (42.0)</td>
</tr>
<tr>
<td>Not very close</td>
<td>16 (27.1)</td>
<td>4 (6.7)</td>
<td>20 (16.8)</td>
</tr>
<tr>
<td>College coursework in sexuality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>7 (10.0)</td>
<td>14 (21.5)</td>
<td>21 (15.6)</td>
</tr>
<tr>
<td>No</td>
<td>63 (90.0)</td>
<td>51 (78.5)</td>
<td>114 (84.4)</td>
</tr>
</tbody>
</table>
Figure 15.

Interaction of experimental condition and queer identification on the outcome of the Marlowe-Crowne Social Desirability Scale index score. Note: OSA = other-sex attraction condition; SSA = same-sex attraction condition
Table 17

Bivariate zero-order Kendall tau-b ($\tau_b$) correlations, means, ranges, and standard deviations for continuous outcomes (US Supplemental Data; N = 135)

<table>
<thead>
<tr>
<th>Variable</th>
<th>DUALPROM</th>
<th>SEXPROM</th>
<th>ROMPROM</th>
<th>SEXSYNTH</th>
<th>ROMSYNTH</th>
<th>DUALPERM</th>
<th>SEXPERM</th>
<th>ROMPERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUALPROM</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEXPROM</td>
<td>.42**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROMPROM</td>
<td>.49**</td>
<td>-.09</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEXSYNTH</td>
<td>.10</td>
<td>.14*</td>
<td>.01</td>
<td>.34**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROMSYNTH</td>
<td>.10</td>
<td>.01</td>
<td>.07</td>
<td>.34**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUALPERM</td>
<td>.29**</td>
<td>.06</td>
<td>.23**</td>
<td>.31**</td>
<td>.32**</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEXPERM</td>
<td>.18**</td>
<td>.43**</td>
<td>-.12</td>
<td>.55**</td>
<td>.26**</td>
<td>.41**</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>ROMPERM</td>
<td>.26**</td>
<td>-.15*</td>
<td>.47**</td>
<td>.18**</td>
<td>.51**</td>
<td>.52**</td>
<td>.11</td>
<td>—</td>
</tr>
</tbody>
</table>

Mean

|          | .27      | .13     | .14     | .26      | .26      | 1.61     | 1.68    | 1.81    |

Range

|          | .020 -.78| .004 -.59| .004 -.59| .00 - 1.00| .00 - 1.00| 0 - 4    | 0 - 5   | 0 - 5   |

SD

|          | .15      | .11     | .12     | .23      | .24      | 1.17     | 1.05    | 1.25    |

Note. DUALPROM = prominence (romantic combined with sexual desire); SEXPROM = prominence (sexual desire); ROMPROM = prominence (romantic love); SEXSYNTH = synthesis (sexual desire); ROMSYNTH = synthesis (romantic love); DUALPERM = permeation (romantic love combined with sexual desire); SEXPERM = permeation (sexual desire); ROMPERM = permeation (romantic love); * $p < .05$, ** $p < .01$, *** $p < .001$
Table 18
Summary of coefficients, standard errors and significance tests: Ordinal and continuous regression model outcomes (US Supplemental Data; N = 135)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Prominence</th>
<th></th>
<th></th>
<th>Synthesis</th>
<th></th>
<th></th>
<th>Permeation</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b (B_{back})</td>
<td>SE (SE_{back})</td>
<td>p</td>
<td>b (B_{back})</td>
<td>SE (SE_{back})</td>
<td>p</td>
<td>b (B_{back})</td>
<td>SE (SE_{back})</td>
<td>p</td>
</tr>
<tr>
<td>Sexual desire + Romantic love</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$b_0$</td>
<td>-1.03 (.26)</td>
<td>0.06 (.52)</td>
<td>&lt; .001 ***</td>
<td>—</td>
<td>—</td>
<td>0.47 (1.61)</td>
<td>0.06 (1.06)</td>
<td>&lt; .001 ***</td>
<td></td>
</tr>
<tr>
<td>Sexual desire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$b_0$</td>
<td>-2.16 (.10)</td>
<td>0.11 (.53)</td>
<td>&lt; .001 ***</td>
<td>-0.97 (.27)</td>
<td>0.06 (.52)</td>
<td>&lt; .001 ***</td>
<td>0.35 (1.41)</td>
<td>0.09 (1.10)</td>
<td>&lt; .001 ***</td>
</tr>
<tr>
<td>$b_1$ (exp. condition)</td>
<td>-0.03 (.49)</td>
<td>0.12 (.53)</td>
<td>.79</td>
<td>—</td>
<td>—</td>
<td>0.20 (1.22)</td>
<td>0.11 (1.11)</td>
<td>.06 †</td>
<td></td>
</tr>
<tr>
<td>$b_2$ (non-queer / queer)</td>
<td>0.35 (.59)</td>
<td>0.12 (.53)</td>
<td>.007 **</td>
<td>—</td>
<td>—</td>
<td>0.14 (1.15)</td>
<td>0.11 (1.11)</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>Romantic love</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$b_0$</td>
<td>-0.75 (.14)</td>
<td>0.08 (.52)</td>
<td>&lt; .001 ***</td>
<td>-0.98 (.27)</td>
<td>0.06 (.52)</td>
<td>&lt; .001 ***</td>
<td>0.60 (1.81)</td>
<td>0.06 (1.06)</td>
<td>&lt; .001 ***</td>
</tr>
</tbody>
</table>

*Note. Parameter information in *italics* do not represent best model fit; $b$ = unstandardized regression coefficient; $B_{back}$ = back-transformed regression coefficient; $SE$ = standard error; $SE_{back}$ = back-transformed standard error; † $p < .10$; ** $p < .01$; *** $p < .001$*
Table 19

Summary of frequencies and percentages of drawn union in binary outcomes by experimental condition and queer identification (US Supplemental Data; N = 135)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Experimental Condition</th>
<th>Queer Identification</th>
<th>Total Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OSA Frequency (Percent)</td>
<td>SSA Frequency (Percent)</td>
<td>Non-queer Frequency (Percent)</td>
</tr>
<tr>
<td>Sexual desire &amp; Romantic love</td>
<td>53 (39.3%)</td>
<td>47 (34.8%)</td>
<td>50 (37.0%)</td>
</tr>
<tr>
<td>Sexual desire &amp; Worried</td>
<td>34 (25.2%)</td>
<td>39 (28.9%)</td>
<td>35 (30.0%)</td>
</tr>
<tr>
<td>Sexual desire &amp; College Student</td>
<td>8 (5.9%)</td>
<td>16 (11.9%)</td>
<td>12 (8.9%)</td>
</tr>
<tr>
<td>Romantic Love &amp; Worried</td>
<td>38 (28.1%)</td>
<td>34 (25.2%)</td>
<td>36 (26.7%)</td>
</tr>
<tr>
<td>Romantic Love &amp; Son in the Family</td>
<td>17 (12.6%)</td>
<td>10 (7.4%)</td>
<td>16 (11.9%)</td>
</tr>
<tr>
<td>Romantic Love &amp; Baseball Member</td>
<td>12 (8.9%)</td>
<td>6 (4.4%)</td>
<td>10 (7.4%)</td>
</tr>
<tr>
<td>Romantic Love &amp; College Student</td>
<td>13 (9.6%)</td>
<td>15 (11.1%)</td>
<td>13 (9.6%)</td>
</tr>
</tbody>
</table>
APPENDIX C: Unique Participant-Generated Euler Diagrams

As described in Chapter 4, participants’ hand-drawn diagrams sometimes contained irregular circular contours. Additionally, a small group of both Japanese and US participants evidenced a variety of alternative visualization strategies in constructing their Euler diagrams. In most cases these more unusual responses required an additional coding step on my part, although a handful of diagrams deviated from the instructions provided to such an extent that I was unable to code them. I describe and provide rationales for both coded and uncoded diagrams below.

**Coded alternative diagrams.** The small number of diagrams evidencing participants’ alternative visualization strategies (n = 13; Japan = 5) fell into two broad categories: diagrams featuring highly elongated or otherwise oblong identity circles; and diagrams featuring identity circles drawn beyond the provided “self-concept” boundary circle. While most participants approximated circles or ovals in their drawn diagrams, three participants drew more irregular, oblong shapes. These participants appeared to draw these irregular shapes as a means of either avoiding or achieving overlap with other nearby drawn contours (see Figure 16, Coded 1). Most participants treated the self-concept circle as a firm boundary; however, in a few cases both US and Japanese participants interpreted this boundary more liberally. One participant labeled the “self-concept” circle as co-terminus with the “worried” identity circle, while two additional participants drew identity circles extending beyond this boundary. A final Japanese participant drew the “romantic love” identity circle fully outside the self-concept area, which I can only speculate indicated perceived irrelevance of that identity circle to the target’s self-concept (see Figure 16, Coded 2).

A few remaining diagrams were more challenging to code as they featured identity
contours not drawn as independent circles. Three participants drew circular contours that would otherwise have extended beyond the boundary “self-concept” circle yet instead were “cut-off” at that boundary. I interpreted these participants as treating the pre-printed “Tom/Taro’s self-concept” boundary as absolute such that diagramming beyond that boundary would lead to ambiguous meaning. In yet another diagram, the participant labeled as “worried” the lens formed from the area of overlap between two identity circles in lieu of drawing a separate circle (see Figure 16, Coded 3). For all these unusual and challenging diagrams, I first compared my standard circumscribing-inscribing measurement method against my pixel-counting area measurement method to establish reliability of area calculations. In instances where these measurements disagreed (indicating drawn contours that departed too much from circularity), I opted for the pixel-count area measurements. One exception to the above coding strategy concerned seven participants (both US and Japanese) who depicted circular contours in a sketch format consisting of multiple overlapping lines. As these sketched diagrams resulted in somewhat indistinct contours, I opted to take two sets of measurements for the circumscribing and inscribing circles, corresponding to the innermost and outermost sketched regions. I then computed an average value from these measurements (see Figure 16, Coded 4).

**Uncoded diagrams.** Apart from these irregular diagrams, I determined that a smaller subset of participant-generated diagrams contained enough ambiguity as to be uncodable. The most common issue I encountered were participants who did not draw all six identity circles (n = 29; Japan = 9); I subsequently dropped these diagrams from all analyses in Study 1. I removed four additional diagrams from measurement and analysis due to their high degree of ambiguity. One US participant drew the “good son” identity contour not as a circular contour but instead with a long appendage apparently intended to indicate overlap with the “good student” identity
circle. While it was possible to compute the area of this irregular contour using the pixel-count measurement method, I could not confidently assume the totality of this area was intended to indicate prominence, association, or both (see Figure 17, Uncoded 1). A second US participant drew a seventh circular contour apparently intended to indicate association between the “good student” and “worried” identity circles; however, I could not compute synthesis outcomes as a result (see Figure 17, Uncoded 2). A third US participant apparently mislabeled their circles, resulting in two “sexual desire” identity circles and rendering the diagram uninterpretable (see Figure 17, Uncoded 3). Finally, a fourth US participant opted to draw identity circles associated by connecting lines rather than degree of overlap as instructed. Consequently, I could not compute synthesis outcomes (see Figure 17, Uncoded 4).
Figure 16.

Coded unusual participant-generated Euler diagrams (English and Japanese)
Figure 17.

Uncoded participant-generated Euler diagrams (English and Japanese)
APPENDIX D: Study 2 Post-Focus Group Survey

Study 2 – post-focus group survey (English)

Self, Identity, and Sexuality

1. Please enter your participant number below.

Please answer the following three questions. For questions 2 and 3, please answer in as much detail as you can.

Question 1

2. Read the three terms below. For each term you have heard of, please check the adjacent box. Check all that apply.

☐ same-sex attraction
☐ homosexuality
☐ gay / lesbian

Question 2

For each term you have heard of, please describe the meaning of that term to the best of your knowledge.

3. same-sex attraction

4. homosexuality
For each term you have heard of, please describe how you learned about that term (e.g., from friends, magazines, media).

6. same-sex attraction

7. homosexuality

8. gay / lesbian

Please address the following three questions in as much detail as you can.

Question 1

We previously asked you to define the following terms: same-sex attraction, homosexuality, and gay / lesbian.
Now, please describe your personal views on each of these terms. As you write, please consider possible sources or origins of your views.

9. **same-sex sexuality**

10. **homosexuality**

11. **gay / lesbian**

**Question 2**

Now, please describe how people in the United States generally view each of these terms. As you write, please consider possible sources or origins of those views.

12. **same-sex attraction**
13. homosexuality

14. gay / lesbian

Question 3

15. Of course, all participants in our study were likely influenced by personal experience while drawing their maps. Apart from personal experience, what social knowledge, attitudes or beliefs might have also influenced these participants as they drew their maps? As you answer, please describe and interpret any patterns you noticed in the maps.

Please circle or write your answer to the following questions.

16. I identify as:
   
   Mark only one oval.
   
   - male
   - female
   - other

17. How many years old are you?
18. What best describes your ethnic background?  
Mark only one oval.

- [ ] Black
- [ ] Latino / Hispanic
- [ ] White
- [ ] Asian / Pacific Islander
- [ ] Native American
- [ ] Other: ____________________________

19. Were you born in the United States?  
Mark only one oval.

- [ ] Yes
- [ ] No

20. If "No," where were you born?  
________________________________________

21. What state do you live in now?  
________________________________________

22. What state/country did you grow up in?  
________________________________________

23. Are you fluent in English?  
Mark only one oval.

- [ ] Yes
- [ ] No

24. If "No," what is your first language?  
________________________________________

25. Do you personally know a man who is sexually attracted to other men?  
Mark only one oval.

- [ ] Yes
- [ ] No

26. If "Yes," how close are you to him?  
Mark only one oval.

- [ ] Very close
- [ ] Somewhat close
- [ ] Not very close
Study 2 – post-focus group survey (Japanese)

自己概念、アイデンティティ、およびセクシュアリティ

1. 実験者から言われた番号を書いてください

最初に次の語についてお尋ねします。
同性に魅力を感じること、同性愛（ホモセクシュアリティ）、ゲイ・レズビアン

2. それぞれの語について、これまで聞いたことがありますか？あったらチェックを入れてください。
   Check all that apply.
   - [ ] 同性に魅力を感じること
   - [ ] 同性愛（ホモセクシュアリティ）
   - [ ] ゲイ・レズビアン

3. もし聞いたことがあるとすれば、それぞれの語について、それぞれの語の意味について、知っている限り書いてください。
   同性に魅力を感じること

4. 同性愛（ホモセクシュアリティ）

5. ゲイ・レズビアン

https://docs.google.com/forms/d/1SqiLRC2EiTvQkEdjMg8YL5NRAKb5MUq5sPkoU/mq0G/edit
6. あなたはそれらの語について、どのように知りましたか？ (e.g., 友人から、雑誌から、メディアから)

taiyou ni hara no dorisugiru koto


7. ゲイ・レズビアン


8. 同性愛（ホモセクシュアリティ）


次の方々に、できるだけ詳しくお答えください。

9. 先ほど、皆さんに、同性に魅力を感じること、同性愛（ホモセクシュアリティ）、ゲイ・レズビアンの3つの語について、尋ねました。a）まず、これらの語において、あなたの個人的な見方について書いてください。その際、それらの見方について、考えられるソース（情報源）や起源についても考えて書いてください。

taiyou ni hara no dorisugiru koto

https://docs.google.com/forms/d/1SiQylRrC2E1vTq4djMg8YL5NRAK86MUJq5uPknUmqi8G/edit
10. 同性愛（ホモセクシュアリティ）

11. ゲイ・レズビアン

12. b) さて、日本の人々が一般的に、それぞれの話について、どのような見方をしているか、書いてください。その際、それらの見方について、考えられるソース（情報源）や起源についても考えて書いてください。

同性に魅了を感じること

13. 同性愛（ホモセクシュアリティ）

14. ゲイ・レズビアン
15. もちろん、参加者はマップを描いている時に個人的な経験の影響を受けた可能性があります。しかし、個人的な経験とは別に、どのような社会的な知識、態度、あるいは信念が、参加者がマップを描く時に影響を与えたと思いますか？回答するためにあたって、マップの中から見出した全てのパターンを記述し解釈してください。

16. 私は
Mark only one oval.

- 男性です
- 女性です
- その他

17. あなたは何歳ですか？

18. 私は
Mark only one oval.

- 日本人です
- 日本人以外です

19. あなたは日本で生まれましたか？
Mark only one oval.

- はい
- いいえ

20. 「いいえ」と答えた方、どこで生まれましたか？

21. あなたは今、どこに住んでいますか？（都・道・府・県）
22. あなたは、どこで生まれ育ちましたか？（都・道・府・県・海外）

23. あなたは日本語が流暢ですか？
   Mark only one oval.
   - はい
   - いいえ

24. 「いいえ」と答えた方、あなたの母国は？

25. あなたは個人的に、男性に性的魅力を感じる男性を知っていますか？
   Mark only one oval.
   - はい
   - いいえ

26. 「はい」と答えた方、その男性とはどれくらい親しいですか？
   Mark only one oval.
   - とても親しい
   - まあまあ親しい
   - あまり親しくない

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