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CAPTURING THE GENDIVERSE: A TEST OF THE GENDER SELF-PERCEPTION
SCALE, WITH IMPLICATIONS FOR SURVEY DATA AND LABOR MARKET
MEASURES

by

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A DISSERTATION

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Under the Supervision of Professor Jolene Smyth

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July, 2015

CAPTURING THE GENDIVERSE: A TEST OF THE GENDER SELF-PERCEPTION
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MEASURES

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University of Nebraska, 2015

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This dissertation assesses a new measure of gender. In doing so, it addresses a glaring inconsistency between how sociologists conceptualize gender and how we measure it (i.e., with sex categories) in most quantitative sociological literature. Research that only measures sex effectively hides the variability in individual social identities that is related to sociological outcomes of interest. Unfortunately, most existing quantitative gender scales are impractical for use in large scale data collection. In this work, I investigated the Gender Self-perception Scale (GSPS) as an alternative survey measure of gender using three projects. For the first project (chapter 2), I used the GSPS and sex measures to predict warmth and competence across two data sources. Strong associations between sex and gender were found for both groups, but less so for competence than warmth, and gender (as measured by the GSPS) was not fully explained by sex. In the second project (chapter 3), I examined how people define gender, gender identity, and masculinity and femininity, and how they think about two versions of the GSPS using cognitive interviews with 13 cisgender and 7 trans respondents. Results indicated similar understandings of gender by gender status, and an overall positive response to the GSPS. The GSPS appears to capture the degree to which the respondent fulfills social stereotypes, indicating that it may be most beneficial for interactional research. In the final project (chapter 4), I examined the relationship

between sex, gender, and work-related outcomes within a high gender minority sample of employed respondents. Neither sex nor the GSPS were consistent predictors across the outcomes of interest, which may indicate a reduction in the impact of these characteristics within the workplace, at least for those privileged in terms of education and occupation as this sample was. Overall, these results point to changing gender norms and expectations, and variability in experiences that are lost when we reduce our analyses to only sex. More research is needed using the GSPS, but it is an option for researchers going forward who would like to measure gender in a parsimonious way.

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TABLE OF CONTENTS

| | |
|--|------|
| TABLE OF CONTENTS | viii |
| List of Tables | vi |
| List of Figures | viii |
| CHAPTER 1 | 1 |
| Literature | 3 |
| Real Life Consequences | 6 |
| Measuring Gender | 8 |
| In Summary | 11 |
| References | 14 |
| CHAPTER 2 | 21 |
| Introduction | 21 |
| Background | 22 |
| Data and Method | 28 |
| Analytic Plan | 34 |
| Findings | 36 |
| Variation in Response | 36 |
| Sex and Gender Predicting Warmth | 37 |
| Sex and Gender Predicting Competence | 39 |
| What Respondent Characteristics Predict Individual Gender Self-perception? | 41 |
| Discussion | 44 |
| Limitations | 47 |
| Conclusions | 49 |
| References | 51 |
| CHAPTER 3 | 56 |
| Introduction | 56 |
| Background | 57 |
| Measuring Gender | 57 |
| Visual Analog Scales | 58 |
| Cognitive Interviews | 61 |
| Research Questions | 63 |

| | |
|---|-----|
| Method..... | 63 |
| Participants..... | 63 |
| Materials..... | 65 |
| Procedure..... | 67 |
| My Role..... | 68 |
| Coding..... | 68 |
| Results..... | 71 |
| “What does gender mean to you?”..... | 71 |
| “When you read gender identity, what comes to mind?”..... | 74 |
| “What comes to mind when you read femininity/masculinity?”..... | 77 |
| “Would you say this is a difficult or easy task?”..... | 80 |
| “Which version do you prefer?”..... | 82 |
| Discussion..... | 84 |
| References..... | 88 |
| CHAPTER 4..... | 91 |
| Introduction..... | 91 |
| Background..... | 92 |
| Research Questions..... | 94 |
| Data..... | 94 |
| Analytic Plan..... | 106 |
| Job Outcomes..... | 108 |
| Autonomy..... | 108 |
| Promotion..... | 119 |
| Discrimination and Harassment..... | 122 |
| General Discussion..... | 134 |
| Limitations..... | 135 |
| Conclusion..... | 136 |
| References..... | 137 |
| CHAPTER 5..... | 143 |
| Discussion..... | 143 |
| Overall..... | 146 |
| Limitations..... | 147 |

| | |
|---|-----|
| Conclusion | 149 |
| References | 151 |
| Appendices | 153 |
| Appendix A: 2011 NASIS Questionnaire | 154 |
| Appendix B: Cognitive Interview Recruitment Materials | 167 |
| Appendix C: Cognitive Interview Protocol | 170 |
| Appendix D: Cognitive Interview Coding Shell | 173 |
| Appendix E: WLG Recruitment Scripts..... | 175 |
| Appendix F: WLG Coverage Maps..... | 178 |
| Appendix G: WLG Survey Questionnaire Screenshots | 181 |
| Appendix H: Demographic Differences by Experimental Condition in the WLG..... | 253 |
| Appendix I: Models of Control Variables by Outcome from Ch. 4 | 255 |

List of Tables

| | |
|--|------|
| TABLE 2.1: GSPS BY SEX AND SURVEY | 30 |
| TABLE 2.2: DESCRIPTIVE STATISTICS | 32 |
| TABLE 2.3: ITEM NONRESPONSE FOR THE GSPS1 | 36 |
| TABLE 2.4: OLS REGRESSION PREDICTING WARMTH (4 ITEM SCALE, A=0.83), NASIS (N=752) | 38 |
| TABLE 2.5: OLS REGRESSION PREDICTING WARMTH (4 ITEM SCALE, A=0.72), WLG (N=225) | 39 |
| TABLE 2.6: OLS REGRESSION PREDICTING COMPETENCE (4 ITEM SCALE, A=0.63), NASIS (N=752) | 40 |
| TABLE 2.7: OLS REGRESSION PREDICTING COMPETENCE (4 ITEM SCALE, A=0.68), WLG (N=225)..... | 41 |
| TABLE 2.8: OLS PREDICTING GENDER SELF-PERCEPTION (NASIS, N=611)..... | 42 |
| TABLE 2.9: OLS PREDICTING GENDER SELF-PERCEPTION (WLG, N=187) | 43 |
| TABLE 2.10: SUMMARY OF RESEARCH QUESTIONS BY SURVEY..... | 45 |
| TABLE 3.1: DEMOGRAPHIC DESCRIPTIVE STATISTICS | 64 |
| TABLE 3.2: DIFFICULTY WITH GSPS BY GENDER STATUS | 82 |
| TABLE 4.1: DESCRIPTIVE STATISTICS (N=291) | 97 |
| TABLE 4.2: OLS REGRESSION PREDICTING AUTONOMY: SEX AND CONTROLS ACROSS SAMPLES..... | 111 |
| TABLE 4.3: OLS REGRESSION PREDICTING AUTONOMY: GSPS1 (N=127),SEX, AND CONTROLS..... | 112 |
| TABLE 4.4: OLS REGRESSION PREDICTING AUTONOMY: GSPS2 (N=125) AND CONTROLS | 115 |
| TABLE 4.5: OLS REGRESSION PREDICTING AUTONOMY: GSPS2 (=125), SEX, AND CONTROLS | 1155 |
| TABLE 4.6: LOGISTIC REGRESSION PREDICTING PROMOTION: SEX AND CONTROLS ACROSS SAMPLES..... | 121 |
| TABLE 4.7: LOGISTIC REGRESSION PREDICTING PROMOTION: GSPS1 (N=107), SEX, AND CONTROLS..... | 123 |
| TABLE 4.8: LOGISTIC REGRESSION PREDICTING PROMOTION: GSPS2 (N=112), AND CONTROLS..... | 124 |

| | |
|---|-----|
| TABLE 4.9: LOGISTIC REGRESSION PREDICTING PROMOTION: GSPS2 (N=112), SEX, AND CONTROLS..... | 125 |
| TABLE 4.10: LOGISTIC REGRESSION PREDICTING GENDER BASED HARASSMENT AT WORK (WOMEN ONLY): GSPS AND CONTROLS | 127 |
| TABLE 4.11: NEGATIVE BINOMIAL REGRESSION PREDICTING NUMBER OF DISCRIMINATION AVOIDANCE TACTICS USED: SEX AND CONTROLS ACROSS SAMPLES | 129 |
| TABLE 4.12: NEGATIVE BINOMIAL REGRESSION PREDICTING NUMBER OF DISCRIMINATION AVOIDANCE TACTICS USED: GSPS1 (N=125), SEX, AND CONTROLS | 131 |
| TABLE 4.13: NEGATIVE BINOMIAL REGRESSION PREDICTING NUMBER OF DISCRIMINATION AVOIDANCE TACTICS USED: GSPS2 (N=127), AND CONTROLS | 132 |
| TABLE 4.14: NEGATIVE BINOMIAL REGRESSION PREDICTING NUMBER OF DISCRIMINATION AVOIDANCE TACTICS USED: GSPS2 (N=127), SEX, AND CONTROLS | 133 |
| TABLE D.1: COGNITIVE INTERVIEW CODING SHELL (RESPONSES REMOVED) . | 174 |
| TABLE H.1: DIFFERENCES BY SCALE | 254 |
| TABLE I.1: OLS REGRESSION PREDICTING AUTONOMY: CONTROLS ACROSS SAMPLES | 256 |
| TABLE I.2: OLS REGRESSION PREDICTING PROMOTION: CONTROLS ACROSS SAMPLES | 257 |
| TABLE I.3: OLS REGRESSION PREDICTING GENDER BASED HARASSMENT AT WORK (WOMEN ONLY): CONTROLS ACROSS SAMPLES | 258 |
| TABLE I.4: OLS REGRESSION PREDICTING NUMBER OF DISCRIMINATION AVOIDANCE TACTICS USED: CONTROLS ACROSS SAMPLES | 259 |

List of Figures

| | |
|--|-----|
| FIGURE 1.1: GENDER SELF-PERCEPTION SCALE FROM THE 2011 NEBRASKA ANNUAL SOCIAL INDICATOR SURVEY | 11 |
| FIGURE 2.1. THE NASIS GENDER SELF-PERCEPTION SCALE..... | 26 |
| FIGURE 2.2. THE WLG GENDER SELF-PERCEPTION SCALE | 31 |
| FIGURE 2.3: GENDER SELF-PERCEPTION BY SEX: NASIS | 37 |
| FIGURE 2.4: GENDER SELF-PERCEPTION BY SEX: WLG..... | 38 |
| FIGURE 2.5: PREDICTED RATINGS OF COMPETENCE BASED ON SEX AND GENDER: NASIS | 40 |
| FIGURE 2.6: EXAMPLES OF DIFFERENT RESPONSES TO THE GSPS IN THE NASIS | 48 |
| FIGURE 3.1: GSPS1 IN THE WORK LIFE AND GENDER SURVEY | 60 |
| FIGURE 3.2: GSPS2 IN THE WORK, LIFE, AND GENDER SURVEY | 61 |
| FIGURE 4.1: GSPS1 IN THE WORK, LIFE, AND GENDER SURVEY | 101 |
| FIGURE 4.2: GSPS2 IN THE WORK, LIFE, AND GENDER SURVEY | 102 |

CHAPTER 1 PRESCRIPTION OR DESCRIPTION? MEASURING GENDER IN SURVEYS

“The problem with gender is that it prescribes how we should be, rather than recognizing how we are.” Chimamanda Ngozi Adichie (2012)

At the 2012 ASA meeting, I attended a panel on the Next Generation of Gender Scholars. Each of the panelists had prepared a short talk about where they thought the future direction of gender scholarship should go. Some talks were very personal, and others very broad, but one stood out to me, because it was the first time I had heard it at a sociological meeting. Lisa Brush stood up and said we need to work on measurement—we need better instruments.

Why do we need better instruments? We have the male and female check boxes on almost every survey. However, these checkboxes are about sex, not gender, while we are often trying to say something about gender in our research. We can do better than to rely solely on an overly simplistic measure to describe the complexity that is gender. On the other hand, psychologists have been producing scales to measure gender quantitatively for decades, but they are often limited to specific aspects (such as conforming to feminine norms), or are made up of an enormously large number of items, making them overly burdensome for the survey respondent and impractical for researchers with limited space in their surveys.

Sociologists usually take more of a qualitative approach to the study of gender, providing incredibly rich data, but it is burdensome to collect for both the respondent and the researcher. Among those whose primary research focus is gender, the burden is not a problem; it is a relatively small price to pay in order to understand such an important organizing factor in society. However, relying primarily on this type of scholarship and not having a less burdensome and more practical quantitative measure of gender

strongly contributes to the ghettoization of gender scholarship. That is, it ensures that serious gender scholarship that attempts to account for the complexities of gender only occurs within the sociology of gender and is not more widely integrated into sociology. Sociological research in general and research in the sub-disciplines of sociology will not, and cannot, take gender as an organizing factor seriously without a more practical measure because to do so would require them to devote considerable time and resources to the concept of gender at the expense of other concepts that drive these research fields. With limited resources, a researcher studying the environment, religion, or any other sub-discipline of sociology is very unlikely to devote multiple pages of a survey to a battery of gender items or to allocate funding to conducting and analyzing extensive in-depth interviews to understand the importance of gender to their research question. If gender is to be taken seriously within sociology as a whole, we need a measure that helps incorporate a more complex understating of gender, can be used in survey research, is somewhat flexible and can be adapted to specific research questions, but does not take up a lot of time for a respondent or a lot of space on a survey. This measure cannot and should not replace the important work, especially qualitative work, that is being conducted within the sociology of gender; but it is needed to compliment this work and, importantly, to help bridge the gap between gender scholars with complex understandings of gender and sociologists working in other areas who commonly reduce gender to an oversimplified control variable that captures only biological sex category.

For this dissertation, I conducted a three-stage research project to investigate the use of a visual analog scale (a continuous scale using a line with polar statements at each end; Cella and Perry 1986) as a quantitative measure of gender. Each stage is a chapter with different research questions and goals, but all focus on trying to answer a

single overarching question: Can a visual analog scale (VAS) measure gender in a meaningful way? In the first project (chapter 2), I used primary and secondary data to assess the validity of an existing VAS, and investigated what respondent characteristics predicted placement on it. In the second project (chapter 3), I reported the results of cognitive and semi-structured interviews on how cis- and transgender respondents understand gender, gender identity, and masculinity/femininity, and their attitudes towards two versions of the VAS. Finally, in the third project (chapter 4) I examined whether sex and gender (measured using the VAS) differentially predicted job outcomes (e.g. promotion, benefits, harassment), and the results of an experimental treatment using the VAS. Next, I address the foundational research and theoretical motivation for these projects, before describing the projects themselves.

Literature

I begin with a definition and brief history of the concepts of sex and gender to help situate this research in the broader context of gender scholarship, and clarify why measures of gender are distinct from measures of sex. Today, sex is understood as the biological categorizations of male and female¹. However, early research focused on sex

¹ Even our measurements of sex are problematic. The medical establishment has developed a practice of “doctoring” bodies that fall outside of the norm, particularly in regards to appearance (Chase 2010; Coventry 1998; Eckert 1989; Fausto-Sterling 1985, 1997, 2000; Kessler 1990; Lorber 2010). Some people are born with “undifferentiated” genitalia (approximately 1-2 in every 100 births) – which means the medical professional cannot immediately determine the sex of the infant. Some of these children fall under the diagnosis of intersex, which means their physical attributes (internal and/or external) are not clearly male or female. These bodies are judged as needing repair to have a normal appearance, and to provide a label of either male or female (Fausto-Sterling 1985, 1997). The natural range of sex characteristics are forced into this dichotomy, making essentialist concepts of gender questionable while at the same time making them less likely to be questioned by erasing the obvious exceptions.

differences and sex roles (Chafetz 2006), which were understood to be based in biological differences (Bruce 1967; Komarovskiy 1950; Winch 1967). In the 1960s and 70s, as research on the social construction of sex grew (Bruce 1967), the term “gender” became part of the parlance to describe constructs related to sex, but not about sex categories themselves (Connell 2009). Sociologists were always interested in the socially constructed meaning of roles, but the use of sex to describe both bodies and socially constructed meanings promoted essentialist ideas. This is problematic because “essential” differences are by definition fixed and unchanging (Smiler and Gelman 2008). That is, that women and men had certain roles because they were women and men; the roles were a necessary consequence of their essence as men and women.

In application, sex categories are very often used as a proxy for gender, operationalizing the assumption that the social self matches the biological and reinforcing essentialist beliefs about gender. Scholars of sex/gender know that this is a false assumption (Barrett and White 2002). Gender is more than just the meanings we give to bodies – it is a major organizing principle of social life (Ridgeway and Smith-Lovin 2006; Schilt and Westbrook 2009). We have gendered bathrooms, jobs, tasks, roles, and consumption patterns – almost everything in the marketplace is available in a male or female version, either explicitly (like deodorant or diet products) or implicitly (such as salad [DeVore 2010] or cleaning products [Sharp 2008]). In everyday interaction, gender displays are often assumed to reflect the bodies, which are understood to be either male or female, under the clothes (Ekins and King 1999). The masculine (male) or feminine (female) traits associated with bodies are part of the structure that gender displays rely on (West and Zimmerman 1987). However, the gendiverse – the actual lived spectrum of gender (regardless of sex) that challenges the traditional gender binary - defies essentialist and traditional explanations of sex and

gender. While scholars of sex and gender know this, they are often limited in their research by available data that only measures sex, not gender.

Doing gender is a popular theory used for examining the way gender reproduces inequality by normalizing social arrangements based on gender categories (West and Zimmerman 1987). West and Zimmerman's conceptualization of gender is specific: "the activity of managing situated conduct in light of normative conceptions of attitudes and activities appropriate for one's sex category" (pg. 127). This is somewhat different than Butler's (1988) understanding of gender as a "stylized repetition of acts" (pg. 519) that is an unstable and illusionary performance, or something people can play with and take pleasure in (Schilt and Meadow 2012). Doing gender means creating difference, and reinforcing essentialist ideas, but does not challenge the binary gender system (Westbrook 2010), or allow for gender play (Schilt and Meadow 2012). Further, doing gender focuses more on the structural inequalities built into the system. The goal of this research is to account for people's gender self-perception, which is obviously impacted by macro social structures and expectations, but may be more variable at the micro level. So while we are all socialized to accept the normative categories, and they shape our lives in ways we may not even realize, people push back (not necessarily by choice) and challenge gender norms. They may face sanctions for these challenges (West and Zimmerman 1987), but ongoing differences between assigned sex and one's gender performance impact the resources available to them (Grant et al. 2011). Right now, much of the relevant social science literature looks at how resource allocations are impacted by sex alone, but it is very likely gender matters in this allocation too. Thus sociologists may be failing to understand how gender matters, not just sex.

Following the concept of gender as unstable (Butler 1988; Sanger 2010), I draw on the concepts of dramaturgy and expectation states theory to situate this work. Dramaturgy uses theater as a metaphor to understand how individuals create and maintain reality, particularly through interaction with others (Goffman 1959). Within this context, dramaturgy is most useful for its description of a performance framework and change in self-presentation. Self-presentation may reflect sex categories, but is based on the aforementioned gender displays, and is what is used in interaction with others. Expectation states theory explains how status hierarchies emerge within groups who have a collective goal or task (Correll and Ridgeway 2006). While this theory is mostly used to describe the processes at play within work and school settings, we can consider many social interactions the result of shared goals. Most importantly, it provides an explanation for the impact of social norms and comparisons on evaluations of self and others (Berger and Webster 2006; Correll and Ridgeway 2006; Ridgeway and Smith-Lovin 1999; 2006). These expectations, based on (presumed) sex and gender self-presentation, shape inequality in our social lives.

Real Life Consequences

As researchers, we want to make sure we are representing people accurately, while protecting them from harm (American Sociological Association 1995). As part of our social responsibility, we aim to contribute to the public good. Unfortunately, there are a great number of negative outcomes associated with non-normative gender identities, activities, and displays. Legal protections for gender nonconformists vary by geographic location (DePillis 2015). Protections from discrimination based on gender identity or sexual orientation was added to a federal bill (Employment Non-Discrimination Act [ENDA]) in 2007 (Congress.gov n.d.), but has not been reintroduced in Congress since

failing to pass in 2013. In 2014, the U.S. Department of Education released new guidelines extending protections against sex discrimination in schools to cover “claims of discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity” (pg. 5). However, this is included under protections from sexual violence, and those best equipped to deal with bullying, violence, and harassment based on gender nonconformity may not recognize it as a form of sexual violence. There is also the issue of the recency of this and similar announcements: it does not erase what has happened in the past, takes time to be disseminated, and is evidence of the prevalence of the problem. Research has shown that there are higher rates of homelessness, suicide and suicide ideation, bullying, prejudice, discrimination, and lower self-esteem (Gordon and Meyer 2007; Grant et al. 2011; Greytak, Kosciw and Diaz 2009; Grossman and D’Augelli 2006; National Coalition for the Homeless 2009; Oswald 2002; Ploderl and Fartacek 2009; Pound vs. Lee Memorial Hospital 2003; Sandfort, Melendez, and Diaz 2007; Seil 2004; Wright 2001) among gender minorities. A great deal of this research is on transgender or sexual minority populations, which is not to say that these groups are victims, but they are often failed by the institutions that are supposed to protect them (family, schools, medical practitioners, law enforcement, etc.; Grant et al. 2011; Greytak et al. 2009). A better understanding of the variability of gender in the broader population, as well as how it relates to social concerns such as education, health, and safety will help combat such negative associations, and contribute to the breakdown of gender inequality (Bem 1995; Connell 2010).

Gender policing is not limited to gender minorities, and impacts supposedly neutral institutions, like the workplace. Workplaces are not immune to the effects of social privilege (Acker 1990, 2006; Kanter 1977; Kelly et al. 2010; Ridgeway 2009); rather, they are shaped by the people within, and the social privileges that come with

them. Most occupations are not sex or gender specific (i.e. the work does not require primary or secondary sex characteristics), yet gender is made salient in myriad ways, such as dress code differences (Levi 2007), “feminized” labor (Ridgeway and Correll 2004), and differential standards for similarly situated men and women workers (Biernat 2003).

We see gender differences in job outcomes such as autonomy (Adler 1993; Briscoe 2004), promotion (Reskin and Padavic 2002; Yamagata et al. 1997), and raises (Tomaskovic-Devey 1993). We also see gender based discrimination and harassment in the workplace (Benokraitis and Feagin 1995; Grant et al. 2011; Konik and Cortina 2008). Researchers frame it as gender differences, but when you look at the work being done, what they are really studying are sex differences. Female/male is the only information they have from their data, so it is what they use. Yet qualitative work (see Connell 2010 and Schilt 2006 for examples) and recent quantitative studies (Berdahl and Moon 2013) show that job outcomes depend on more than just sex categories.

Measuring Gender

Measuring gender is problematic in quantitative and large scale survey research. Even qualitative sociological research focused on other topics besides gender rarely asks for more than sex categories. As noted earlier, sex categories are a poor proxy for gender. However, in trying to measure gender, there is a problem of definition. When we ask for gender, what do we want to know? Gender intersects with so many domains of our social lives (as children, parents, workers, etc.; Connell 1987; Risman 1998), it is difficult to parse out exactly what we mean when we try to measure gender. Do we want to know to what degree an individual conforms to societally proscribed roles (as West and Zimmerman [1987] define it)? Or do we want to know about West and Zimmerman’s sex

categories- the identificatory displays that are read as membership in social categories? Do we want to know how people feel, how they appear to others, or contextual differences more in line with Butler's (1988) unstable performances or Goffman's dramaturgy (1959)? Gender is a very complex construct.

Despite this difficulty, researchers outside of sociology have tried to measure gender in several ways, typically with multi-item scales. For the most part, these scales tend to focus on specific domains of gender, be incredibly long, and are only tested on undergraduate students. From psychology, Bem's 60 item Sex Role Inventory (BSRI; 1974) measures masculinity, femininity, and androgyny, and is still commonly used after almost 40 years. The BSRI was intended to capture the internalization of sex-typed desirable behavior for men and women, as well as how much people disassociate from these behaviors (i.e. androgyny). Levant et al. (2007) developed a 45 item femininity ideology scale that they describe as distinct from previous scales measuring gender roles. Mahalik et al. (2003) and Mahalik et al. (2005) developed different scales for conformity to masculine or feminine norms, attempting to capture cognitive, behavioral, and affective dimensions. They defined gender role norms as those that constrain and guide feminine and masculine behavior, meeting societal expectations. Each of these scales had eight or more subscales so they totaled over 100 items. A communications based scale (the Perceived Masculinity Scale; Chesebro and Fuse 2011) followed the trend in length with 50 items said to measure eight dimensions. These lengthy scales focus primarily on behaviors and beliefs, which may or may not map onto the traditional sociological understandings of gender. The system of gender relies on shared cultural understandings, but is highly contextual, depending on social location (Ridgeway and Smith-Lovin 1999). To my knowledge, these scales have not been used in large scale

surveys to examine associations with outcomes that typically interest sociologists, such as social stratification processes.

The instrument I use for this research is the Gender Self-perception Scale (GSPS), originally used in Jolene Smyth's 2007 dissertation on farm women (see Fig. 1 for the original version). Visual analog scales such as this are not often used in sociological research. They are most common in healthcare, where they are used to measure concepts such as anxiety (Davey et al. 2007) or pain (Gallagher et al. 2002; Myles et al. 1999). Medical research has found that VASs can be a replacement for longer indices, at least in some instances (Davey et al. 2007). Most of the research on VASs as a research tool has been focused on web-based applications (Couper et al. 2006; Funke, Reips, and Thomas 2011; Studer 2012). The biggest problems with VASs identified in this research were related to technological limitations, such as respondents not having the necessary software to run the scale features. In addition, Couper et al. (2006) found higher item nonresponse and greater cognitive difficulty (as measured by response time and item nonresponse) with more complex constructs using the VAS versus other types of web-based scales they tested (e.g. radio buttons or Likert scales).

The complexity of gender will likely differ across respondents. Gender minorities, and those who challenge gender norms, are more likely to have considered their place relative to gender expectations (e.g. Lucal's [1999] "What It Means to Be Gendered Me: Life on the Boundaries of a Dichotomous Gender System"). This may result in less cognitive difficulty and respondent burden for questions about gender. Ironically, in trying to measure gender in an inclusive way, survey questions may become more difficult for people who are not gender minorities. The primary constructs being tested with the GSPS are more common, and hopefully understandable by all - masculinity and

25. Below is a line with completely feminine at one end and completely masculine at the other. We are going to ask you to place a couple of people on the line. Place the following letters on the line:

Write A where you think you land.
 Write B where you think our society's ideal woman would be.
 Write C where you think our society's ideal man would be.
 Write D where you think your spouse or partner lands (if applicable).

Completely Feminine Completely Masculine

Figure 1.1: Gender Self-perception Scale from the 2011 Nebraska Annual Social Indicator Survey

femininity, as measures of gender generally associated with being male and female, respectively. Masculinity traditionally involves narratives of risk, adventure and accomplishment (Fausto-Sterling 2000; Messerschmidt 2000), and femininity involves narratives about attractiveness (de Beauvoir 1989), caretaking, and submission (Connell 1987; Levant et al. 2007; Pascoe 2007). As Spence (1984) pointed out, people have a strong sense of masculinity and femininity, but may have trouble defining just what characteristics constitute these constructs. This leads me to believe that, regardless of gender minority status, respondents will be able to understand what is being asked of them.

In Summary

The following chapters are stand-alone articles reporting the results of three projects addressing my overall research question: Can a visual analog scale (VAS) measure gender in a meaningful way?

Chapter 2 reports the results of an exploration of the use of the GSPS within larger populations using two sources of data (an opt-in web survey and a general

population mail survey of Nebraskans). Specifically, it addresses three research questions:

- 2.1: Is there variation in how people of different sexes respond to the GSPS?
- 2.2: Within these samples, how does the GSPS predict gender related constructs, compared to a measure of sex categories?
- 2.2: Given the way that gender intersects with our social lives, what respondent characteristics predict individual gender self-perception?

Chapter 3 reports the results of cognitive interviews about the development and content of a web-based survey with thirteen cisgender and seven transgender respondents. This chapter also included a new version of the GSPS that measures femininity and masculinity separately (referred to as GSPS2). Having two versions of the scale created an opportunity for comparison. Here, I step back from the original GSPS to address several concerns:

- 3.1: How do respondents understand the concepts of gender, gender identity, and femininity and masculinity when asked in a survey setting?
- 3.2: Are these concepts understood differently by cisgender versus trans persons?

Regarding the two versions of the GSPS:

- 3.3: How difficult or easy are the scales?
- 3.4: Do respondents have a preference for one scale over the other?
- 3.5: Are there differences in scale preference by gender status (cis vs. trans)?

The fourth chapter demonstrates the practical application of the GSPS in a topical survey of work outcomes. With the exception of two surveys of trans discrimination (Grant et al. 2011; Lombardi et al. 2001), the data on actual gender

differences at work has been qualitative (see Connell 2010 and Schilt 2006). The remaining studies of “gender” differences actually operationalize gender as sex categories. Given the literature on work outcomes, I have two overall questions.

- 4.1: Do sex and gender measures differentially predict job outcomes?
- 4.2: Do the two versions of the GSPS operate the same?

Finally, chapter five summarizes the findings of the previous chapters and how they addressed the overall research question. The implications of results, their limitations, and future directions will be discussed.

References

- Acker, Joan R. 1990. "Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations." *Gender and Society*. 4:139-58.
- Acker, Joan R. 2006. "Inequality Regimes: Gender, Class, and Race in Organizations." *Gender and Society*. 20: 441-64.
- Adichie, Chimamanda Ngozi. 2012. "We Should All Be Feminists." TEDxEuston Web site. Retrieved January 27, 2015 (<http://tedxeuston.blogspot.co.uk/2013/04/chimamanda-adichie-at-tedx-euston-2012.html>).
- American Sociological Association. 1999. "Code of Ethics and Policies and Procedures of the ASA Committee on Professional Ethics." Retrieved July 24, 2015 (<http://www.asanet.org/images/asa/docs/pdf/CodeofEthics.pdf>).
- Barrett, Anne E., and Helene Raskin White. 2002. "Trajectories of Gender Role Orientations in Adolescence and Early Adulthood: A Prospective Study of the Mental Health Effects of Masculinity and Femininity." *Journal of Health and Social Behavior* 43:451-68.
- Bem, Sandra L. 1974. "The Measurement of Psychological Androgyny." *Journal of Consulting and Clinical Psychology*. 42:155-62.
- Bem, Sandra Lipsitz. 1995. "Dismantling Gender Polarization and Compulsory Heterosexuality: Should We Turn the Volume Down or Up?" *The Journal of Sex Research* 32:329-34.
- Benokraitis, Nijole V., and Joe Feagin. 1995. *Modern Sexism*. Edgewood Cliffs, NJ: Prentice Hall.
- Berdahl, Jennifer L., and Sue H. Moon. 2013. "Workplace Mistreatment of Middle Class Workers Based on Sex, Parenthood, and Caregiving." *Journal of Social Issues* 69:341-66.
- Berger, Joseph, and Murray Webster, Jr. 2006. "Expectations, Status and Behavior." Pp. 268-300 in *Contemporary Social Psychological Theories*, edited by P.J. Burke. Stanford, CA: Stanford University Press.
- Biernat, Monica. 2003. "Toward a Broader View of Social Stereotyping." *American Psychologist* 58:1019-27.
- Bruce, Virginia. 1967. "The Expression of Femininity in the Male." *Journal of Sex Research* 3:129-39.

- Butler, Judith. 1988. "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory." *Theatre Journal* 40:519-31.
- Cella, David F. and Samuel W. Perry. 1986. "Reliability and Concurrent Validity of Three Visual-Analogue Mood Scales." *Psychological Reports* 59:827-33.
- Chafetz, Janet Saltzman. 2006. "The Varieties of Gender Theory in Sociology." Pp 3-23 in *The Handbook of the Sociology of Gender*, edited by J.S. Chafetz. New York: Springer.
- Chase, Cheryl. 2010. "Affronting Reason." Pp. 67-75 in R. Weitz's (Ed.) *The Politics of Women's Bodies: Sexuality, Appearance, and Behavior*. New York: Oxford University Press.
- Chesebro, James W. and Koji Fuse. 2001. "The Development of the Perceived Masculinity Scale." *Communications Quarterly* 49:203-78.
- Congress.gov. n.d. "H.R.2015 – Employment Non-Discrimination Act of 2007" *110th Congress (2007-2008)* Library of Congress. Retrieved July 15, 2015 (<https://www.congress.gov/bill/110th-congress/house-bill/2015>).
- Connell, Catherine. 2010. "Doing, Undoing, or Redoing Gender? Learning from the Workplace Experiences of Transpeople." *Gender and Society*. 24:31-55.
- Connell, R. W. 1987. *Gender and Power*. Stanford, CA: Stanford University Press.
- Connell, Raewyn. 2009. *Short Introductions: Gender*. 2nd edition. Cambridge, MA: Polity Press.
- Correll, Shelley J., and Cecilia L. Ridgeway. 2006. "Expectation States Theory." Pp. 29-51 in *Handbook of Social Psychology*, edited by J. Delamater. New York: Kluwer Academic.
- Couper, Mick P, Roger Tourangeau, Frederick G. Conrad, and Eleanor Singer. 2006. "Evaluating the Effectiveness of Visual Analog Scales: A Web Experiment." *Social Science Computer Review* 24:227-45.
- Coventry, Martha. 1998. "The Tyranny of the Esthetic: Surgery's Most Intimate Violation." *On the Issues* Summer. Retrieved July 24, 2015 (<http://www.ontheissuesmagazine.com/1998summer/su98coventry.php>).
- Davey, Heather M., Alexandra L. Barratt, Phyllis N. Butow, and Jonathan J. Deeks. 2007. "A One-Item Question with a Likert or Visual Analog Scale Adequately Measured Current Anxiety." *Journal of Clinical Epidemiology* 60:356-60.
- de Beauvoir, Simone. 1989. *The Second Sex*. New York: Vintage.

- DePillis, Lydia. 2015. "This is the Next Front in the Battle for Gay Rights." Wonkblog *The Washington Post* Web site, June 26. Retrieved July 15, 2015 (<http://www.washingtonpost.com/blogs/wonkblog/wp/2015/06/26/this-is-the-next-frontier-in-the-battle-for-gay-rights/>).
- DeVore, John. 2010. "A 'Dude' Explains Why Salad Is 'Man Food'" *CNN*. Retrieved January 27, 2015 (<http://www.cnn.com/2010/LIVING/03/22/real.men.eat.salad/>).
- Eckert, Penelope. 1989. "The Whole Woman: Sex and Gender Differences in Variation." *Language Variation and Change* 1:245-67.
- Ekins, Richard, and Dave King. 1999. "Towards a Sociology of Transgendered Bodies." *The Sociological Review* 47:580-602.
- Fausto-Sterling, Anne. 1985. *Myths of Gender: Biological Theories about Women and Men*. New York: Basic Books.
- Fausto-Sterling, Anne. 1997. "How to Build a Man" Pp. 219-25 in *Constructing Masculinity*, edited by M. Berger, B. Wallace and S. Watson. New York: Routledge.
- Fausto-Sterling, Anne. 2000. *Sexing the Body: Gender Politics and the Construction of Sexuality*. New York: Basic Books.
- Funke, Frederik, Ulf-Dietrich Reips, and Randall K. Thomas. 2011. "Sliders for the Smart: Type of Rating Scale on the Web Interacts With Educational Level." *Social Science Computer Review* 29:221-31.
- Gallagher, E. John, Polly E. Bijur, Clarke Latimer, and Wendy Silver. 2002. "Reliability and Validity of a Visual Analog Scale for Acute Abdominal Pain in the ED." *American Journal of Emergency Medicine* 20:287-90.
- Goffman, Erving. 1959. *The Presentation of Self in Everyday Life*. New York: Anchor Books.
- Gordon, Allegra R., and Ilan H. Meyer. 2007. "Gender Nonconformity as a Target of Prejudice, Discrimination, and Violence Against LGB Individuals." *Journal of LGBT Health Research* 3:55-71.
- Grant, Jaime M., Lisa A. Mottet, Justin Tanis, Jack Harrison, Jody L. Herman, and Mara Keisling. 2011. "Injustice at Every Turn: A Report of the National Transgender Discrimination Survey." Washington, DC: National Center for Transgender Equality and National Gay and Lesbian Task Force.
- Greytak, Emily. A., Joseph G. Kosciw, and Elizabeth M. Diaz, 2009. *Harsh Realities: The Experiences of Transgender Youth in Our Nation's Schools*. New York: GLSEN. Retrieved July 24, 2015 (<http://files.eric.ed.gov/fulltext/ED505687.pdf>).

- Grossman, Arnold H., and Anthony R. D'Augelli. 2006. "Transgender Youth: Invisible and Vulnerable." *Journal of Homosexuality* 51:111-28.
- Jagacinski, Carolyn M. 1987. "Androgyny in a Male-Dominated Field: The Relationship of Sex-Typed Traits to Performance and Satisfaction in Engineering." *Sex Roles* 17:529-47.
- Kamorovsky, Mirra. 1950. "Functional Analysis of Sex Roles." *American Sociological Review* 15:508-16.
- Kanter, Rosabeth Moss. 1977. *Men and Women of the Corporation*. New York: Basic Books.
- Kelly, Erin L., Samantha K. Ammons, Kelly Chermack and Phillys Moen. 2010. "Gendered Challenge, Gendered Response: Confronting the Ideal Worker Norm in a White-Collar Organization." *Gender & Society*. 24:281-303.
- Kessler, Suzanne J. 1990. "The Medical Construction of Gender: Case Management of Intersexed Infants." *Signs*.16:3-26.
- Konik, Julie, and Lilia M. Cortina. 2008 "Policing Gender at Work: Intersections of Harassment Based on Sex and Sexuality." *Social Justice Research* 21:313-37.
- Levant, Ronald, Katherine Richmond, Stephen Cook, A. Tanner House and Maryse Aupont. 2007. "The Femininity Ideology Scale: Factor Structure, Reliability, Convergent and Discriminant Validity, and Social Contextual Variation." *Sex Roles*. 57:373-83.
- Levi, Jennifer. 2007. "Some Modest Proposals for Challenging Established Dress Code Jurisprudence." *Duke Journal of Gender Law and Policy* 14:243-55.
- Lorber, Judith. 2010. "Believing is Seeing: Biology as Ideology." Pp. 13-26 in R. Weitz's (Ed.) *The Politics of Women's Bodies: Sexuality, Appearance, and Behavior*. New York: Oxford University Press.
- Lucal, Betsy. 1999. "What it Means to be Gendered Me: Life on the Boundaries of a Dichotomous Gender System." *Gender and Society* 13:781-97.
- Mahalik James R., Benjamin D. Locke, Larry H. Ludlow, Matthew A. Diemer, Ryan P. J. Scott, Michael Gottfried, and Gary Freitas. 2003. "Development of the Conformity to Masculine Norms Inventory." *Psychology of Men and Masculinity* 4:3-25.
- Mahalik, James R., Elizabeth B. Morray, Aimee Coonerty-Femiano, Larry H. Ludlow, Suzanne M. Slattery, and Andrew Smiler. 2005. "Development of the Conformity to Feminine Norms Inventory." *Sex Roles* 52:417-35.
- Messerschmidt, James. 2000. *Nine Lives: Adolescent Masculinities, the Body and Violence*. Boulder, CO: Westview Press.

- Moskowitz, D. S., Eun Jung Suh, and Julie Desaulniers. 1994. "Situational Influences on Gender Differences in Agency and Communion." *Journal of Personality and Social Psychology* 66:753-61.
- National Coalition for the Homeless. 2009. "LGBT Homeless." Retrieved July 24, 2015 (<http://www.nationalhomeless.org/factsheets/lgbtq.html>).
- Oswald, Ramona Faith. 2002. "Resilience Within the Family Networks of Lesbians and Gay Men: Intentionality and Redefinition." *Journal of Marriage and Family* 64:374-83.
- Pascoe, C. J. 2007. *Dude, You're a Fag*. Berkeley, CA: University of California Press.
- Plöderl, Martin, and Reinhold Fartacek. "Childhood Gender Nonconformity and Harassment as Predictors of Suicidality Among Gay, Lesbian, Bisexual, and Heterosexual Austrians." *Archives of sexual behavior* 38.3 (2009): 400-10.
- Pound v. Lee Memorial Hospital*, (Cass Circuit Court, State of Michigan [2003]).
- Reskin, Barbara and Irene Padavic. 2002. *Women and Men at Work*. Thousand Oaks, CA: Pine Forge Press.
- Ridgeway, Cecilia L. 2009. "Framed Before We Know It: How Gender Shapes Social Relations." *Gender and Society*. 23: 145-60.
- Ridgeway, Cecilia and Shelly J. Correll. 2004. "Unpacking the Gender System: A Theoretical Perspective on Gender Beliefs and Social Relations." *Gender and Society*. 18:510-31.
- Ridgeway, Cecilia L. and Lynn Smith-Lovin. 1999. "The Gender System and Interaction." *Annual Reviews of Sociology*. 25:191-216.
- Ridgeway, Cecilia L., and Lynn Smith-Lovin. 2006. "Gender and interaction." Pp 247-74 in *Handbook of the Sociology of Gender*. Houston, TX: Springer.
- Risman, Barbara J. 1998. *Gender Vertigo: American Families in Transition*. New Haven, CT: Yale University Press.
- Sandfort, Theo GM, Rita M. Melendez, and Rafael M. Diaz. 2007. "Gender Nonconformity, Homophobia, and Mental Distress in Latino Gay and Bisexual Men." *Journal of Sex Research* 44:181-89.
- Sanger, Tam. 2010. "Beyond Gender and Sexuality Binaries in Sociological Theory." Pp 259-76 in *Transgender Identities: Towards a Social Analysis of Gender Diversity*. New York: Routledge.
- Schilt, Kristin. 2006. "Just One of the Guys? How Transmen Make Gender Visible at Work" *Gender and Society*, 20:465-90.

- Schilt, Kristen, and Tey Meadow. 2012. "Undoing Gender: Is It Possible? Is It Desirable?" Presented at the annual meeting of the American Sociological Association, August 17th, Denver, CO.
- Schilt, Kristin, and Laurel Westbrook. 2009. "Doing Gender, Doing Heteronormativity: 'Gender Normals,' Transgender People and the Social Maintenance of Heterosexuality." *Gender and Society*. 23:440-64.
- Seil, David. 2004. "The Diagnosis and Treatment of Transgendered Patients." *Journal of Gay and Lesbian Psychotherapy* 8:99-116.
- Sharp, Gwen. 2008. "Cleaning Products Are Woman's Special Friend." *Sociological Images*. Retrieved January 27, 2015 (<http://thesocietypages.org/socimages/2008/09/23/cleaning-products-are-womens-special-friend/>).
- Smiler, Andrew P., and Susan A. Gelman. 2008. "Determinants of Gender Essentialism in College Students." *Sex Roles* 58:864-74.
- Smyth, Jolene. 2007. "Doing Gender When Home and Work are Blurred: Women, and Sex-Atypical Tasks in Family Farming." PhD dissertation, Washington State University, Pullman, WA.
- Spence, Janet T. 1984. "Gender Identity and Its Implications for the Concepts of Masculinity and Femininity." *Nebraska Symposium on Motivation* 32:59-95.
- Studer, Raphael. 2012. "Does it Matter How Happiness is Measured? Evidence from a Randomized Controlled Experiment." Working paper. Retrieved January 19, 2013 (<http://www.econ.uzh.ch/faculty/studer/vas.pdf>).
- Thernau, Phyllis, Shane Latimer, and Denise Conroy. 1994. "How Do You Make It to the Top? An Examination of Influences on Women's and Men's Managerial Advancement." *Academy of Management Journal* 37:899-931.
- Tomaskovic-Devey, Donald. 1993. "The Gender and Race Composition of Jobs and the Male/Female, White/Black Pay Gaps." *Social Forces* 72:45-76.
- United States Department of Education. Office of Civil Rights. 2014. "Questions and Answers on Title IX and Sexual Violence." Retrieved July 15, 2015 (<http://translaw.wpengine.com/wp-content/uploads/2014/04/qa-201404-title-ix.pdf>).
- West, Candace, and Don H. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1:125-51.
- Westbrook, Laurel. 2010. "Becoming Knowably Gendered: The Production of Transgender Possibilities and Constraints in the Mass and Alternative Press from

1990-2005 in the United States." Pp. 43-63 in *Transgender Identities: Towards a Social Analysis of Gender Diversity*. Edited by S. Hines and T. Sanger. New York: Routledge.

Winch, Robert F. 1967. "Another Look at the Theory of Complementary Needs in Mate-Selection." *Journal of Marriage and Family* 29:756-62.

Women's Bureau, United States Department of Labor. 2104. "Women in the Labor Force." Facts Over Time. Retrieved January 27, 2015 (http://www.dol.gov/wb/stats/facts_over_time.htm).

Wong, P.T.P., G. Kettlewell, and C.F. Sproule. 1985. "On the Importance of Being Masculine: Sex Role, Attribution, and Women's Career Achievement." *Sex Roles* 12:757-69.

Wright, Kai. 2001. "To Be Poor and Transgender." *The Progressive* October, pp. 21-4.

Yamagata, Hisashi, Kuang S Yeh, Shelby Stewman, and Hiroko Dodge. 1997. "Sex Segregation and Glass Ceilings: A Comparative Statics Model of Women's Career Opportunities in the Federal Government over a Quarter of a Century." *American Journal of Sociology* 103:566-632.

CHAPTER 2 BETTER THAN BOXES? TESTING AN ALTERNATIVE SCALE FOR GENDER RESEARCH

Introduction

At the 2012 American Sociological Association meeting, when asked about the future direction of gender scholarship in sociology, panelist Lisa Brush said we need to work on measurement (Brush 2012). Out of five panelists, Brush was the only one to talk about measurement, so it is obviously not the primary concern for the discipline as a whole. So why did Brush bring it up? Research on sex and gender is not stagnating, so better measures are not required for the field to grow. To understand why this call for better instruments was made, and why they are needed, we need to understand the methods used for measuring gender.

Gender is usually measured using one of three approaches. The qualitative approach, which sociologists often use, provides incredibly rich data, but is burdensome for both the respondent and researcher. Qualitative studies tend to be done on smaller groups, or with populations that are difficult to locate, or need to be protected in some way (i.e., with limited generalizability). Examples of this type of research include work on drag performers (Berkowitz, Belgrave, and Halberstein 2007; Rupp, Taylor, and Shapiro 2010; Shapiro 2007), household labor in transgender partner relationships (Hines 2006; Pfeffer 2009), and transgender suicide attempt/ideation (Clements-Nolle, Marx, and Katz 2006). In contrast, quantitative studies of gender tend to be completed by psychologists, who have been producing scales and indices for decades on the subject. Many of these scales are incredibly long and burdensome for the respondent (see Levant et al.'s [2007] Femininity Ideology Scale, and Mahalik et al.'s [2003] Conformity to Masculine Norms Inventory for examples). As a result, they are often developed and validated on college

students and are rarely used in larger, general population surveys. The lack of application leaves a gap in understanding how these scales are related to other measures sociologists are interested in, such as family dynamics, health, and labor market outcomes. Most of the large scale general population surveys that sociologists use for research use the third approach, which is to only include a basic measure of sex category—that is, male or female—to represent gender (see Davies & McAlpine [1998] for a combination of family, health, and labor market outcomes using sex as a proxy for gender).

As most serious sociology of gender scholars would agree, sex categories (often presented as check boxes: male or female) are not an appropriate proxy for gender measurement. They obscure much of the variation in gender and thus inhibit our ability to understand how gender really shapes social life. In order for the quantitative sociological study of gender to advance, researchers need a measure of gender (not sex category), that is somewhat flexible but does not take up a lot of time for a respondent or a lot of space on a survey. That is, they need a nuanced measure of gender that is practical to include in a survey of the general public where many other constructs are also being measured (i.e., it cannot be made up of 40+ items). In this paper, I investigate one such measure, the Gender Self Perception Scale (GSPS), as an alternative to sex category measures using two different data sources.

Background

Why is sex category a poor measure of gender?

Most surveys ask for sex categorization as a proxy for gender, assuming that the social self matches the biological. Scholars of sex/gender know that this is a false assumption, particularly for people who identify as intersex, transgender, and/or other diverse

genders (Bem 1974, 1995; Butler 1988; Schilt and Meadow 2012; Westbrook 2010). The ability to measure identities outside of the binary is important, but so is measuring the gendiverse. The gendiverse refers to gender diversity amongst both trans persons (using trans as an umbrella term to encompass gender minorities) and cisgender people (those whose gender identity aligns with their sex assigned at birth). People may fulfill some gender norms, but challenge others in ways that impact the social world and sociological research, not to mention the impact on their own lives, and interactions with others. I argue that the reason we know so little about the varieties of gender identity, presentation, experience, and their outcomes is because of our reliance on measures based on essentialist ideas, which fail to capture gender diversity.

Essentialist ideas about gender have long been a focus of sex and gender scholarship. In their generative article “Doing Gender,” West and Zimmerman (1987) argued that the enactment of gender reproduces gender inequality by normalizing social arrangements based on gender categories. Their conceptualization of gender is specific: “the activity of managing situated conduct in light of normative conceptions of attitudes and activities appropriate for one’s sex category” (pg. 127). It means creating difference, and reinforcing essentialist ideas. This is somewhat different than Butler’s (1988) understanding of gender as a “stylized repetition of acts” (pg. 519) that is an unstable and illusionary performance. A primary difference between these conceptions is the concept of scale. Butler is focused on individual distinctions and resistance to cultural norms. For West and Zimmerman (1987), as well as other well-known sociology scholars (Acker 1990, 2005, 2006; Connell 1987, 1990; Lorber 1994; Risman 2009), the individual perspective is of less sociological importance than the structural processes that help maintain them (although the importance of interaction supports both

perspectives). Yet so much (quantitative) research maintains binary understandings of gendered behavior, reinforcing the existing social controls (Johnson 2005).

Theoretically, this work fits in between the structural models that guide so much of the sociological research on gender (Acker 1990; Connell 1987, 1990; Lorber 1994; Risman 1998, 2009; West and Zimmerman 1987) and the individual/interactional models asserted by Butler (1988) and Schilt and Meadow (2012). Supposedly neutral institutional practices (such as relying on binary gender measures) work to reify binary gender conventions, and prevent acknowledgment of a broader range of identities. Bem (1995) suggested proliferating gender categories would disrupt the current othering of those that fail at West and Zimmerman's (1987) definition of gender. Structural theories may not be focused on identity, but change at the individual level can produce change at the macro level. The greater goal of this work is to make the ties between the levels explicit, and demonstrate the diversity of gendered experiences that challenge the binary system. To do this, we need measures that capture more than simplified, biological assignments.

What is an alternative measure?

Visual analog scales (VAS), which have not typically been used in sociological research (see Smyth 2007 for an exception), may provide an alternative way to measure gender. A visual analog scale is a continuous line with dichotomous end points that asks the respondent to designate their answer to a question by marking somewhere on the line at or between the two end points (Cella and Perry 1986). They are most commonly used in healthcare, to measure concepts such as anxiety (Davey et al. 2007) or pain (Gallagher et al. 2002; Myles et al. 1999). Medical research has found that VASs can be a replacement for longer indices, at least in some instances (Davey et al. 2007). Most of

the recent research on VASs as a research tool has been focused on web-based applications (Couper et al. 2006). Aside from some technical problems, such as respondents not having the necessary software to run the scale features, Couper et al. (2006) found higher item nonresponse and more breakoffs with more complex constructs using the VAS versus other types of web-based scales they tested. It is unclear whether gender is too complex of a construct for this measurement format.

The VAS used in this research comes from Smyth's (2007) dissertation on farming/ranching women where she used it to examine the relationship between farm women's daily activities and gender self-perceptions, but never validated it. Named the Gender Self-perception Scale (GSPS), its endpoints are "Completely Feminine" and "Completely Masculine" (see Fig. 2.1). Respondents are asked to place themselves (and possibly others) on the line where they think they fall between the two endpoints. The GSPS provides a quantitative measure of the respondents' self-perceived gender, but can also capture comparative information such as how they see other family members' gender and what they perceive as society's ideal gender for men and women. Smyth called the differences between self and ideals "gender discrepancies" – how different from the societal ideal the person thinks they are. Smyth's research was focused on (cisgender) women who live and/or work on the farm, but still reflected the complexities of gender by social locations. She found significant differences in both self-perception and discrepancies based on their daily activities. While this was a specific population, the nice thing about this scale is that regardless of the respondent's sex or gender identity, they can still compare themselves to societal ideals, or these options can be altered or removed. The GSPS provides flexibility to fit the needs of the researcher/survey.

25. Below is a line with completely feminine at one end and completely masculine at the other. We are going to ask you to place a couple of people on the line. Place the following letters on the line:

Write A where you think you land.
 Write B where you think our society's ideal woman would be.
 Write C where you think our society's ideal man would be.
 Write D where you think your spouse or partner lands (if applicable).



Figure 2.1. The NASIS Gender Self-perception Scale

How can we assess this alternative measure?

Given the goal of capturing gender diversity, the first assessment of the GSPS is to see if there is variation in how people perceive their gender. This addresses the first research question – is there variation in responses to the GSPS?

A way to assess the utility of the GSPS is to analyze its predictive validity. That is, does it predict constructs that we think should be related to gender? The survey I used for this research included measures related to gendered stereotypes of warmth and competence. The stereotype content model (SCM; Cuddy, Fiske, and Glick 2008; Fiske et al. 2002) explains how stereotypes about people can be differentiated based on ratings of warmth and competence, particularly gender stereotypes. The SCM is predominantly used to describe impression formation in interactions with others. Warmth is linked to feelings of trust and sincerity, while competence is linked to the ability to pursue one's desires, both of which align with the feminine and masculine scales of the Bem Sex Role Inventory (Bem 1974). In repeated studies, women who were seen as stereotypically feminine were rated higher in warmth and lower in competence, and those who were seen as less feminine were rated lower in warmth and higher in competence (Cuddy et al. 2008; Fiske et al. 2002). Similarly, men who were judged to

be successful were rated as being more competent, and less warm, but this was strongly linked to their occupation. Associations of warmth and competence with gender self-perception (i.e. the GSPS measure) provide evidence of the validity of the GSPS as a gender measure. A significant association between gender self-perception and warmth and competence when controlling for sex category suggests the GSPS is yielding a more nuanced measure of gender than sex category alone. Further, an interaction between sex and gender (via the GSPS), as suggested by the warmth and competence literature, would indicate that the impact of one is dependent on the presence of the other. This led me to my first research question: how does the predictive power of the GSPS compare to that of sex categories?

As part of my investigation into the GSPS, it is important to understand the relationship between gender self-perceptions and respondent characteristics that are often associated with gender. Individuals who are more accepting of gender nonconformity (or liberal in other ways) may be more likely to perceive themselves outside binary gender norms. The most obvious association is with sex category, primarily for those who are fulfilling their “appropriate” (West and Zimmerman 1987) gender roles. Other characteristics associated with social conservatism may be related to stronger adherence to traditional gender ideologies (Cotter, Hermsen and Vanneman 2011), such as age, education, income, and urbanity. We might expect that older respondents would hold more rigid views towards gender over time (Cotter et al. 2011). Greater education and higher income are associated with more egalitarian attitudes towards gender (Cotter et al. 2011). Women in rural areas face fewer sanctions for gender nonconformity than women in urban areas (Kazyak 2012; Smyth 2007). Because of these expected associations, my second research question was what respondent characteristics predict individual gender self-perception? Conducting

analyses in these two different data sets allowed me to see whether the predictive validity of the GSPS differed between a general population sample and a sample with considerably higher prevalence of gender minorities.

Data and Method

To evaluate the validity of the GSPS, I used two data sources with different types of samples (general population vs. convenience). The two samples had different strengths and weaknesses for answering the research questions. The general population sample was better in terms of generalizability and comparisons to benchmarks (e.g. Census data), but did not measure gender minority status (e.g., transgender, intersex, genderfluid, genderqueer, etc.) for important subgroup analyses. The convenience sample did not allow generalizable statements about group representation (Kish 1965), but they did allow for targeted recruitment of characteristics (like gender minorities) missing from general population sampling frames.

The first data source was the 2011 Nebraska Annual Social Indicators Survey (NASIS). The NASIS is an omnibus survey of Nebraska residents conducted annually since 1977 by the Bureau of Sociological Research (BOSR) at the University of Nebraska-Lincoln. In 2011, the NASIS was a twelve page booklet questionnaire that included questions about topics like water issues, fear of crime, and travel. The 2011 NASIS was conducted as a mail survey administered to a sample of 2,498 Nebraskan households with a directory-listed telephone number selected by Survey Sampling International (BOSR 2011). As part of an experiment unrelated to this dissertation, each sampled household was randomly assigned to a different within-household selection treatment (last birthday, next birthday, oldest adult, or youngest adult (Olson, Stange,

and Smyth 2014)². All of the within-household selection treatments specified that an adult age 19 or over should be the respondent since 19 is the age of majority in Nebraska. 906 sample members responded for an AAPOR Response Rate 1 of 36.3% (AAPOR 2011).

The second source of data came from a convenience sample web survey of adults 18 and older fielded in October of 2014 using Qualtrics web survey software. The Work, Life, and Gender Survey (WLG) was designed to capture greater gender diversity than the NASIS general population survey. Participants were recruited mostly via Facebook; however, a brief description of the survey and a link were also shared on tumblr (personal), twitter (personal), reddit (r/SampleSize), three listservs (Sociology Department at UNL; the Organizations, Occupations and Work Section of the American Sociological Association [ASA]; and the Sex and Gender Section of ASA), and Craigslist in the 20 largest cities in the US (under Community: Volunteers). I also directly emailed seven LGBT centers in those cities (with one reply), and local connections. Due to skip patterns, no one received all possible questions, but there was a total of 149 across four topic areas: work, barriers (i.e., discrimination and harassment), gender, and demographics.

The gender measure in this study was the GSPS. The GSPS is a line with “Completely Feminine” and “Completely Masculine” as the end points. Respondents were asked to rate people along the continuum. In the NASIS (Fig. 2.1 above), Respondents were asked to give their rating by writing letters along the one continuum for different people – themselves (A), their spouse/partner (D), society’s ideal woman

² Analyses showed that within-household selection method was unrelated to the GSPS

(B), and society's ideal man (C). In the WLG they were provided with a separate slider scale for each person they were asked to rate and they could drag and drop a marker to the point on the continuum that described the person (Fig. 2.2). This survey also asked for a fifth measurement: "How you think others view you". The value of the self-perception is created by measuring the number units (0-15) from the left side of the scale (completely feminine, in this version) to where respondents wrote their letter or dropped the marker. On the NASIS, the GSPS took up a space 2.75" high across a single page, and the units were specifically in (15) centimeters. In the WLG, the actual size of the scale varied by the device used to access it (e.g., computer, tablet, or mobile phone screen). The breakdown of how males and females responded to each of these surveys is shown in Table 2.1. The standard deviations were very similar across both surveys and sexes (identical for females and males in the NASIS).

| | Female | | Males | | Average | |
|---------------|--------|------|-------|------|---------|------|
| | Mean | StD | Mean | StD | Mean | StD |
| NASIS (n=753) | 3.58 | 2.54 | 12.02 | 2.54 | 6.82 | 4.83 |
| WLG (n=253) | 4.24 | 2.47 | 11.28 | 2.6 | 6.31 | 4.11 |

The WLG also contained an experiment in which respondents were randomly assigned to either receive the GSPS presented as a continuous scale ranging from "completely feminine" to "completely masculine" (as all of the NASIS respondents received) or as two separate scales ("not at all feminine" to "completely feminine", and "not at all masculine" to "completely masculine"). Overall, a total of 737 people opened the survey. Of these, 59 dropped out at the welcome page, and another five did not answer the first question, leaving 678 who answered questions. Of these, 496 got to the GSPS, with 253 given the continuous scale and 240 given the two separate scales. Due

to the comparison between the two surveys, the separate scale responses were dropped from these analyses.

Work, Life, and Gender Survey

Below are a series of lines with completely feminine at one end and completely masculine at the other. For each line, please move the bar to the place you think best describes the person specified:
(Unanswered rows remain gray)

| | Completely Feminine | Completely Masculine |
|-------------------------------------|---------------------|----------------------|
| Yourself | | |
| How you think others view you | | |
| Your spouse/partner (if applicable) | | |
| Society's ideal woman | | |
| Society's ideal man | | |

Figure 2.2. The WLG Gender Self-perception Scale

Both surveys included a series of questions related to gendered stereotypes. Eight items were measured on a four point Likert scale (Strongly Agree, Agree, Disagree, and Strongly Disagree) with the prompt "In general, I think of myself as a:" followed by Competent person, Compassionate person, Warm person, Forceful person, Independent person, Understanding person, Cheerful person, and Ambitious person. The four items associated with warmth (compassion, warmth, understanding, cheerful) were averaged to make a scale ranging from zero to four with an alpha of 0.83 in the

NASIS and 0.72 in the WLG. The four items associated with competence (competence, force, independence, and ambition) were averaged to make a scale ranging from zero to four with an alpha of 0.63 in the NASIS and 0.68 in the WLG. Higher values equaled more agreement for both warmth and competence scales, and both are negatively skewed, which was expected since they are desirable characteristics (Cuddy et al. 2008; Fiske et al. 2002). These scales were used as dependent variables for their strong associations with sex and gender. That is, the GSPS should significantly predict these scales if it is a good measure of gender. Descriptive statistics, including for the warmth and competence scales, are shown in Table 2.2. The survey instruments with the original wording can be found in Appendices A (NASIS) and G (WLG).

| | 2011 NASIS (n=906) | | | | WLG (n=253) | | | |
|------------------------------------|--------------------|---------|------|-----|-------------|---------|-----|-----|
| | Mean/% | St. Dev | Min | Max | Mean/% | St. Dev | Min | Max |
| <i>Dependent Variables</i> | | | | | | | | |
| Warmth (scale) | 3.37 | 0.47 | 1.25 | 4 | 3.27 | 0.45 | 2 | 4 |
| Competence (scale) | 3.13 | 0.45 | 1.5 | 4 | 3.07 | 0.48 | 1 | 4 |
| <i>Focal Independent Variables</i> | | | | | | | | |
| Female | 61% | | 0 | 1 | 71% | | 0 | 1 |
| <i>Demographic Characteristics</i> | | | | | | | | |
| White | 95% | | 0 | 1 | 90% | | 0 | 1 |
| Age | 55.36 | 16.91 | 19 | 100 | 31.65 | 9.99 | 18 | 66 |
| Education | | | | | | | | |
| HS diploma (or less) | 22% | | 0 | 1 | 3% | | 0 | 1 |
| Some coll/technical | 35% | | 0 | 1 | 24% | | 0 | 1 |
| Bachelor's degree | 26% | | 0 | 1 | 34% | | 0 | 1 |
| Master's degree + | 17% | | | | 39% | | 0 | 1 |
| Family income <\$25,000 | 17% | | 0 | 1 | 22% | | 0 | 1 |
| Married | 69% | | 0 | 1 | 60% | | 0 | 1 |
| Has children | 34% | | 0 | 1 | 22% | | 0 | 1 |
| Town | 84% | | 0 | 1 | 82% | | 0 | 1 |
| Employed | 62% | | 0 | 1 | 80% | | 0 | 1 |

The majority of the questions were the same between the two surveys. Of notable difference are sex and town. In the NASIS, sex was measured by a question that

asked “Are you: male/female” The WLG included multiple measures of sex and gender. Rather than use “What was your sex assigned at birth, on your original birth certificate? Female/male,” I used a question about survey behavior for truer comparison. It asks “Which of the following do you do when you are given a survey that asks: Are you: male/female.” Respondents could answer “answer male,” “answer female,” “leave the question blank and go on to the next question,” “leave the question blank and stop filling out the survey,” or “other” with space to write in their answer. This was coded like the NASIS (female=1), with the last three options (2.82%) coded as missing. It is possible that without the alternate options, more respondents would have answered male/female, but the NASIS included 3.42% of missing as on the simpler question. In the NASIS, town was captured by the question “Do you live on a farm, in open country but not on a farm, or in a town or city?” This question was not asked in the WLG. Instead, respondents were asked for their zip code, and Rural-Urban Commuting Area Code (RUCA) data (including population density and urbanization) was appended. If the area was designated as metropolitan, it was coded as town for the WLG.

The remaining variables were fairly straightforward in the NASIS and WLG. Race was based on two questions, ethnicity and a check-all that apply list of racial categories. Given the small proportion of minority respondents (5.3, 9.87%, respectively), I chose to compare only non-Hispanic whites to others. Age was calculated as the year of data collection minus birth year. Respondents were asked about the highest level of education they could attain. The response options included no diploma, high school diploma/GED, some college, but no degree, technical/associate/junior college (2yr, LPN), bachelor’s degree (4yr, BA, BS, RN), or graduate degree (master’s, PhD, law, medicine). Income was an ordinal variable with 12 categories (ranging from under \$5,000 to \$100,000 or above). The five categories under \$25,000 were collapsed into a

dichotomous variable (=1). Current marital status was a nominal question with six or seven response options (depending on survey). Having children under the age of 18 in the home (=1) was constructed from a question asking respondents to indicate how many children they have in each of three age groups (5 and under, 6-12, and 13-18). Employment status came from a nine option check-all that apply question: “Do you typically work full-time, part-time, go to school, keep house, or something else?”

As expected with the two different sampling designs, and as can be seen in Table 2.2, the two samples were considerably different on a number of characteristics. Compared to NASIS respondents, the WLG respondents were almost 20 years younger (on average), almost twice as likely to be in the lowest income categories, almost a third less likely to be married or have children, and about 25% more likely to be working. The NASIS did not include any measures of gender or sexual orientation, but the WLG included several questions related to gender and sexual identity, and 87% of the sample identified as cisgender, and 65% identified as heterosexual. These numbers were far lower than most estimates (conservative estimates are 99% and 97% respectively; Williams Institute 2015). As is common with mail surveys of the general public, the NASIS completed sample also differed from benchmark measures of the state’s population (U.S. Census Bureau 2014). NASIS respondents were older, whiter, and more educated than state benchmarks. The WLG appears to suffer from the same issues, although specific benchmarks are not available. The respondents were overwhelmingly female, white, and highly educated.

Analytic Plan

Given that the dependent variables in these analyses were continuous, I used ordinary least squares (OLS) regression to answer my research questions. For the first research

question - how does the GSPS predict gender related constructs (i.e., warmth and competence), compared to that of sex categories – I regressed each outcome on sex and gender separately, then together and finally together including an interaction term between sex and gender. This produced four models for each outcome, for each data source (for 16 models in all). For the second research questions - what respondent characteristics predict individual gender self-perception – I regressed the GSPS on sex and the other demographic characteristics separately, then together, for a total of three models for each survey.

The NASIS data included sample weights to adjust for region, sex, and age bias in the sample (BOSR 2011), which I used in the analyses. The WLG was intended to capture information not included in state or national benchmarks, so weights were not available.

The amount of item nonresponse (missingness) in the data was something to consider. Multiple imputations (completed using the `ice` command in Stata, with 20 sets) were completed, but the results did not differ in meaningful ways from the models using listwise deletion. Not using the imputed data did impact the sample size (and therefore degrees of freedom), but not as much when limiting the sample to those with some demographic data. That is, allowing variability in the number of cases from model to model sometimes produced different results than the method used here – maintaining case size across the analyses.

The focus of this project is the GSPS, so missing data on the scale was problematic, particularly if related to the scale itself. Table 2.3 shows the item nonresponse for the GSPS, by survey. The differences in the surveys' design and content may have impacted these data. The NASIS, as an omnibus survey, presented

questions about the environment and parenthood before presenting the scale. In comparison, the WLG was a topical survey, with many questions about sex and gender prior to the GSPS, effectively priming the respondents to the topic, and potentially easing the burden on them.

| | <u>NASIS</u> | <u>WLG</u> |
|----------|--------------|------------|
| Complete | 772 | 245 |
| N | 906 | 253 |
| Missing | 134 | 9 |
| % | 14.79 | 3.54 |

Findings

Variation in Response

The first question this research addresses is whether or not there was within sex variation using this scale. A table of means and standard deviations (like Table 2.1, shown above) is descriptive, but not illustrative. Figures 3 and 4 illustrate the variation in response by sex. In the NASIS, female responses were more varied than males, although males' responses encompassed the possible range of the scale (0-15) and females' did not (0-14). The modes were close to the ends. In the WLG, there were fewer respondents overall, but there was still greater variation than sex categories capture. For both males and females, the modes were closer to the center than for the NASIS respondents. Compared to the NASIS respondents, the WLG folks used a smaller range of the scale, with female responses ranging from 0-11 and male responses from 5-15. These differences are likely due to differences in sample size (the number of WLG respondents with complete sex and GSPS data is less than a quarter of the NASIS).

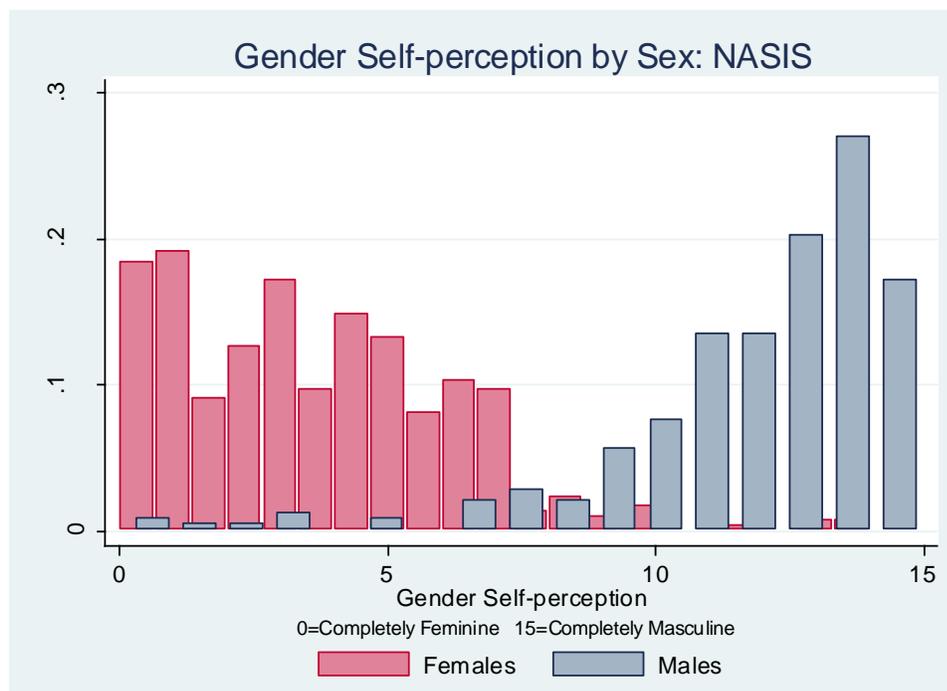


Figure 2.3: Gender Self-perception by Sex: NASIS

Sex and Gender Predicting Warmth

Table 2.4 shows the sex and gender measures predicting warmth for the NASIS. Model 1 shows that sex was significantly associated with warmth, with women rating themselves a quarter of a point higher in warmth than men ($t=7.3$, $p<0.001$). Sex alone explained just over 11% of the variance in warmth. Model 2 shows that gender, as measured by the GSPS, also significantly predicted warmth ($t=-6.2$, $p<0.001$). Each additional centimeter (1/15th of the scale distance) respondents placed their mark towards the masculine end of the GSPS was associated with a 0.03 decrease in self-ratings of warmth. The GSPS alone explained just over 9% of the variance in warmth. In Model 3, both sex and gender were entered into the model simultaneously. Here only sex was significant ($t=3.5$, $p<0.01$) and adding gender to the model only explained an

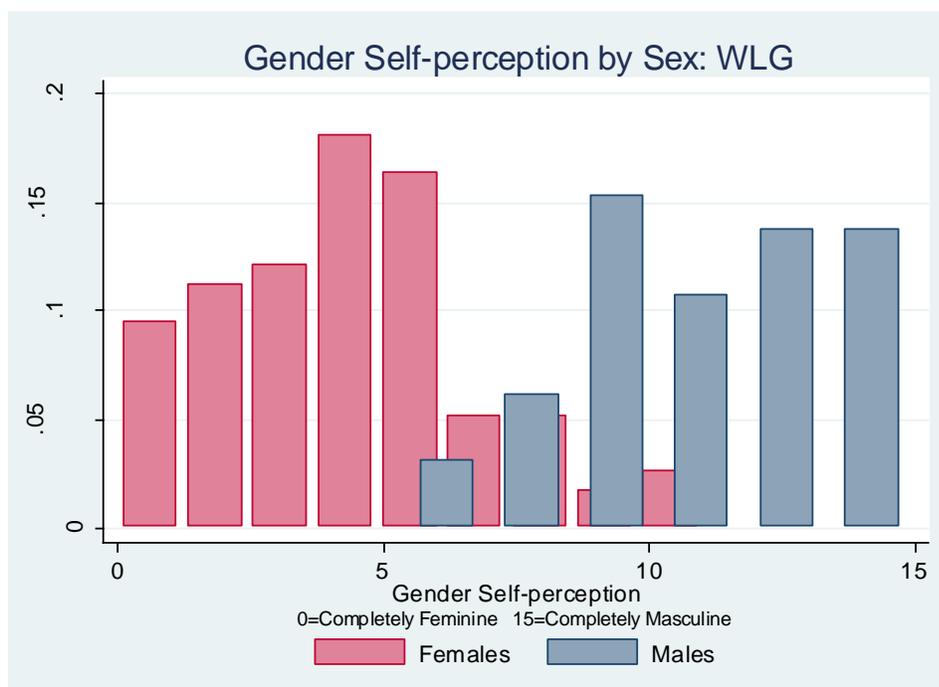


Figure 2.4: Gender Self-perception by Sex: WLG

additional 0.11% of the variance over what sex alone explained in Model 1. Finally, in Model 4, the interaction between sex and gender was added to the model. While more variance was explained in this model than the one with no interaction (11.98% vs. 11.54%), the interaction term was not significant. In the NASIS, sex was a stronger predictor of warmth, and gender (as measured with the GSPS), had little or no predictive value above and beyond sex.

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|---|---------|-----|---------|-----|---------|-----|---------|-----|
| Intercept | 3.19 | *** | 3.56 | *** | 3.26 | *** | 3.12 | *** |
| Sex (female) | 0.31 | *** | | | 0.26 | ** | 0.44 | ** |
| Gender | | | -0.03 | *** | -0.01 | | 0.01 | |
| xSex | | | | | | | -0.02 | |
| Adjusted R ² | 11.43% | | 9.25% | | 11.54% | | 11.98% | |
| Difference from Model 1 R ² | | | -2.18% | | 0.11% | | 0.55% | |
| † $p=0.10$, * $p=0.05$, ** $p=0.01$, *** $p=0.001$ | | | | | | | | |

The results from the WLG Survey (in Table 2.5) were somewhat different. Here, sex was only significant on its own (Model 1), and explained a relatively small amount of the variance in warmth (2.11%). Gender, alone (Model 2), operated in the same manner as in the NASIS ($t=-4.2$, $p<0.001$), but explained three times the variance that sex did in Model 1. Model 3 included both sex and gender, and only gender was significant ($t=-3.7$, $p<0.001$). So controlling for sex, each additional centimeter (1/15th of the distance) respondents placed their mark towards the masculine end of the GSPS was associated with a 0.04 decrease in self-ratings of warmth. Slightly more variance (0.41%) was explained with the addition of sex to gender. The interaction of the two in Model 4 was only marginally significant ($t=-1.8$, $p<0.10$), but the main effects were not significant. An additional 0.9% of variance in warmth was explained with this model. Thus, within the WLG, gender was a stronger predictor of warmth than sex, the opposite of what was found in the NASIS.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|----------|-----------|-----------|----------|
| Intercept | 3.16 *** | 3.46 *** | 3.64 *** | 3.25 *** |
| Sex (female) | 0.16 * | | -0.15 | 0.29 |
| Gender | | -0.03 *** | -0.04 *** | -0.01 |
| xSex | | | | -0.05 † |
| Adjusted R ² | 2.11% | 7.05% | 7.46% | 8.36% |
| Difference from Model 1 R ² | | 4.94% | 5.35% | 6.25% |
| † $p=0.10$, * $p=0.05$, ** $p=0.01$, *** $p=0.001$ | | | | |

Sex and Gender Predicting Competence

Table 2.6 shows the NASIS models regressing competence on sex and the GSPS. In these analyses, neither sex nor gender alone was a significant predictor of competence (Models 1 and 2). When both predictors were included (Model 3), both sex and gender

| | Model 1 | Model 2 | Model 3 | Model 4 |
|--|----------|----------|----------|----------|
| Intercept | 3.10 *** | 3.12 *** | 2.88 *** | 2.65 *** |
| Sex (female) | 0.05 | | 0.21 * | 0.51 ** |
| Gender | | 0.00 | 0.02 † | 0.04 ** |
| xSex | | | | -0.04 * |
| Adjusted R ² | 0.41% | 0.00% | 1.65% | 3.09% |
| Difference from Model 1 R ² | | -0.41% | 1.24% | 2.68% |

† $p<0.10$, * $p<0.05$, ** $p<0.01$, *** $p<0.001$

gained in predictive power. Sex was significant ($t=2.56$, $p<0.05$), and gender was marginally significant ($t=1.83$, $p<0.10$). Females rated themselves about 1/5th of a point higher in competence when gender was also taken into account, while each centimeter towards masculine end of the gender scale was associated with a 0.02 increase in competence. Together, they explained 1.65% of the variance in competence. Model 4 shows the significant interaction ($t=-2.09$, $p<0.05$) of sex and gender, which is illustrated in Fig. 2.5. The interaction effectively canceled out the impact of gender for females,

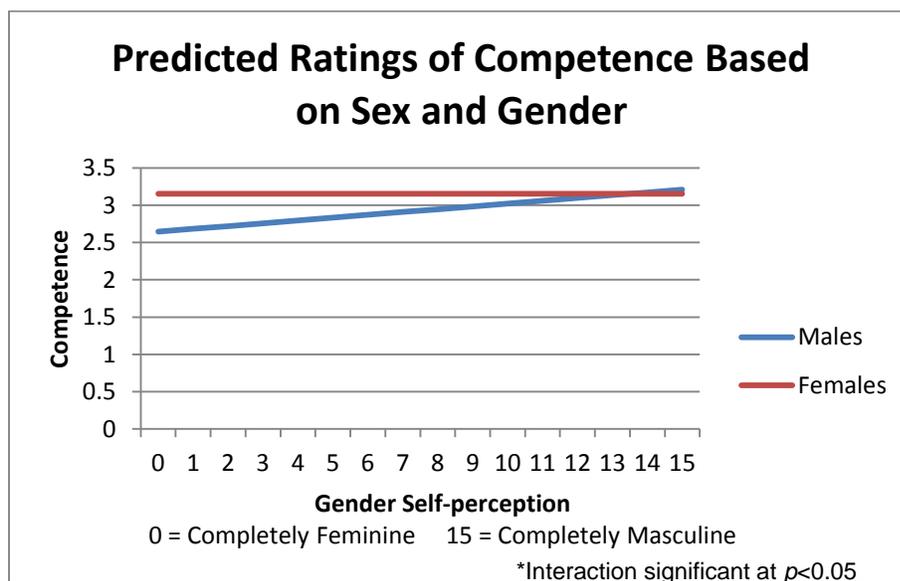


Figure 2.5: Predicted Ratings of Competence Based on Sex and Gender: NASIS

but not for males. For males, self-rated competence changed based on their self-perceived gender. Males who perceived themselves as more masculine also rated themselves as higher in competence. Adding the interaction almost doubled the explained variance for Model 4, but it was still quite low (3.09%). In these data, sex and gender together were stronger predictors of competence than they were individually.

Again, the WLG results were different than the NASIS. The WLG models regressing competence on sex and gender are shown in Table 2.7. In these models, neither sex nor gender was a significant predictor of competence, on its own or in combination.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|--|----------|----------|----------|----------|
| Intercept | 3.06 *** | 3.10 *** | 3.05 *** | 2.98 *** |
| Sex (female) | 0.03 | | 0.04 | 0.11 |
| Gender | | 0.00 | 0.00 | 0.01 |
| xSex | | | | -0.01 |
| Adjusted R ² | 0.35% | -0.40% | -0.80% | -1.23% |
| Difference from Model 1 R ² | | -0.05% | -0.45% | -0.88% |

† $p=0.10$, * $p=0.05$, ** $p=0.01$, *** $p=0.001$

What Respondent Characteristics Predict Individual Gender Self-perception?

The next set of analyses examined what respondent characteristics predicted gender self-perception. Tables 2.8 and 2.9 show the OLS coefficients predicting placement along the GSPS by demographic characteristics for NASIS and WLG respondents respectively. Model 1 includes sex only, Model 2 shows all of the demographic variables except sex, and Model 3 shows all of the predictor variables together.

| | Model 1 | | | Model 2 | | | Model 3 | | |
|--|---------|------|-----|---------|------|-----|---------|------|-----|
| | β | SE | | β | SE | | β | SE | |
| Sex (female) | -8.20 | 0.39 | *** | | | | -8.05 | 0.34 | *** |
| Age | | | | 0.03 | 0.02 | | 0.00 | 0.01 | |
| White | | | | -2.26 | 0.90 | * | 0.24 | 0.67 | |
| Education [^] | | | | | | | | | |
| Bachelor's | | | | 0.68 | 0.58 | | -0.03 | 0.35 | |
| Master's or higher | | | | 0.42 | 0.68 | | 0.38 | 0.37 | |
| Family income <\$25K | | | | -1.32 | 0.82 | | -0.02 | 0.62 | |
| Married | | | | 0.10 | 0.72 | | -0.17 | 0.40 | |
| Has children | | | | -2.39 | 0.71 | ** | -0.31 | 0.46 | |
| Town | | | | -1.86 | 1.05 | † | -0.85 | 0.57 | |
| Employed | | | | 1.06 | 0.52 | * | 0.54 | 0.34 | |
| Intercept | 11.85 | 0.31 | *** | 10.18 | 2.47 | *** | 11.82 | 1.28 | *** |
| Adjusted R2 | 69.75% | | | 11.56% | | | 70.69% | | |
| † $p=0.10$, * $p=0.05$, ** $p=0.01$, *** $p=0.001$ | | | | | | | | | |
| [^] Reference categories: Ed - less than bachelor's | | | | | | | | | |

As expected, Model 1 of Table 2.8 shows that sex was significantly related to gender self-perception ($t=-21.1$, $p<0.001$). The intercept shows the average GSPS value for males was 11.85. Subtracting the coefficient for sex (female) indicates the average GSPS value for females was 3.65. Almost 70% of the variance in gender was explained by sex. Model 2 shows the demographic variables regressed on gender. Non-Hispanic whites rated themselves as more feminine than their non-white counterparts ($t=-2.5$, $p<0.01$). Having children under the age of 18 in the household was associated with a 2.39 unit move towards the feminine end of the scale ($t=-3.35$, $p<0.01$). This was consistent with the literature on people adopting more feminine characteristics after having children (Hawkins and Belsky 1989). Also consistent with the previous literature (Kazyak 2012; Smyth 2007), living in a rural versus urban area was marginally associated with an almost two unit move towards the masculine end of the scale ($t=-1.86$, $p<0.10$). Being employed (versus not) was associated with a one unit move towards the masculine end of the scale ($t=2.04$, $p<0.05$). These variables explained about 11.6% of the variance in gender self-perception.

Model 3 shows the addition of sex to the other demographic variables. None of the demographic variables retained significance once sex was added to the model, although sex was still significant ($t=-23.38$, $p<0.001$). Even though Model 2 explained 11% of the variance in gender without including sex, most of this effect was lost in Model 3. Comparing the explained variance in Model 3 to Model 1 (70.69-69.75), only about 1% of the variance in gender was explained by the other demographic variables, after controlling for sex. In the NASIS, sex was the greatest predictor of gender, effectively swallowing all of the variance associated with other characteristics.

The WLG data is different, yet again, as shown in Table 2.9. Again, sex is significant in Model 1 ($t=-17.98$, $p<0.001$). The average value for males in this survey was 11.25 (approximately half a centimeter farther from completely masculine than in the NASIS), and the average value for females was 3.96 (about 0.3 centimeters farther from completely feminine than the NASIS respondents). The variance in gender

| | Model 1 | | | Model 2 | | | Model 3 | | |
|---|---------|------|-----|---------|------|----|---------|------|-----|
| | β | SE | | β | SE | | β | SE | |
| Sex (female) | -7.30 | 0.41 | *** | | | | -7.25 | 0.41 | *** |
| Age | | | | -0.03 | 0.03 | | -0.02 | 0.02 | |
| White | | | | 0.96 | 1.05 | | 0.06 | 0.65 | |
| Education^ | | | | | | | | | |
| Bachelor's | | | | 1.45 | 0.78 | † | 1.15 | 0.50 | * |
| Master's or higher | | | | 0.62 | 0.75 | | 0.84 | 0.47 | † |
| Family income <\$25K | | | | -0.72 | 0.83 | | 0.06 | 0.52 | |
| Married | | | | -0.22 | 0.71 | | 0.24 | 0.44 | |
| Has children | | | | 0.53 | 0.74 | | 0.34 | 0.46 | |
| Town | | | | -0.32 | 0.81 | | -0.31 | 0.50 | |
| Employed | | | | 0.56 | 0.80 | | -0.03 | 0.51 | |
| Intercept | 11.25 | 0.34 | *** | 5.29 | 1.90 | ** | 11.26 | 1.23 | *** |
| Adjusted R2 | 63.41% | | | -0.75% | | | 63.20% | | |
| † $p=0.10$, * $p=0.05$, ** $p=0.01$, *** $p=0.001$ | | | | | | | | | |
| ^Reference categories: Ed - less than bachelor's | | | | | | | | | |

explained by sex alone was similar to that of the NASIS data – 63%. Education was marginally significant in Model 2, such that those with a four year degree were 1.45 centimeters closer to the masculine end of the scale than those without a four year degree ($t=1.45$, $p<0.10$). None of the other demographic variables significantly predicted gender. In Model 3 when sex and the other demographics were entered together, education increased significance. Both people with bachelor's ($t=2.31$, $p<0.05$) and more advanced degrees ($t=1.79$, $p<0.10$) perceived themselves as about a full unit more masculine than individuals with less than a four year degree. Sex also retained its significance in this model such that being female was associated with a large shift towards the feminine side of the scale (7.25 points, $t=-17.52$, $p<0.001$). Within the WLG, sex played a slightly smaller role than it did in the NASIS. The addition of sex in Model 3 brought the explained variance to 63%.

Discussion

The questions tested here were aimed at better understanding the GSPS as a tool for measuring gender in surveys. Overall, I found that the GSPS captured variation beyond sex categories, explained some variation in gendered constructs (i.e. warmth and competence), but had little or no relationship with other gendered characteristics that I would expect. The replication of analyses with two different data sources demonstrated the complexities involved with using a new measure. Table 2.10 shows a summary of the research findings across both datasets. There was variation in both samples, but the analyses do not provide a strong foundation for claiming validity. It is unclear whether this lack of consistency in results is related to the scale itself or to differences in the samples. Truly answering this question requires further data collection, and suggests that there is value in looking beyond the simple boxes that sex categories alone require.

| | NASIS | WLG |
|---|----------|----------|
| RQ1: Variation across surveys | X | X |
| RQ2a: GSPS related to warmth | X | ~ |
| RQ2b: GSPS related to competence | X | |
| RQ3: GSPS related to other gendered characteristics | ~ | ~ |

The lack of consistency may align with the interaction of gender and the outcomes in society. For example, both sex and gender alone were predictive of warmth, indicating the continued ties between each and the norms of femininity – passivity, expressiveness, cooperation (Stets and Burke 2000). Masculinity is linked to narratives of risk, adventure and accomplishment (Fausto-Sterling 2000; Messerschmidt 2000, 2003), which may necessarily involve competence, as the ability to get things done (Cuddy et al. 2008; Fiske et al. 2002). On the other hand, it can be argued that the ability to get things done is not a gendered construct in and of itself, which would explain the lack of significance in those models. The differences between the models may be explained as cohort difference. Sex and gender interacted in predicting competence in the NASIS, and not in the WLG, but there are some rather large differences between the groups, particularly when it comes to age. The association between masculinity and competence may be fading as women have made greater gains towards social equality. The interaction between sex and gender suggests that men are at greater risk of making such connections, but only in the older sample (although there were fewer men in the younger sample). More importantly, given the purpose of this research, the association between sex and competence is moderated by gender, reinforcing the importance of using more than sex categories in our research.

It is possible that a better “boxes” measure – leaving room beyond just male and female, or a gender based alternative (e.g. man, woman, androgynous) – would operate similarly to the GSPS, but that was not available in this data for comparison.

The version of the scale used in the 2011 NASIS has been criticized for treating gender as an oppositional construct – as if femininity and masculinity cannot coexist. That is a limitation of the scale, but it is also unclear how respondents are interpreting the scale. Those who perceive themselves in the middle of the GSPS may see it as an absence of masculinity and femininity, or perhaps as equally masculine and feminine. Future work will examine how respondents interact with and understand the GSPS as well as test an alternative version of the scale that measures masculinity and femininity separately, but further research is needed on this topic.

Another criticism of the GSPS is the use of masculinity and femininity as the end points, when gender is such a multidimensional construct (Connell 1987; Mahalik et al. 2003; West and Zimmerman 1987). This is a valid critique – the scale does attempt to capture gender in broad strokes, which may obscure refined dimensions of gender that those focused primarily on gender scholarship may want to understand. It is a compromise between the lengthy gender scales and the two box sex categories. I do not discount masculinity and femininity as useful measures for the majority of respondents. As Spence (1984) pointed out, people have a strong sense of masculinity and femininity, but may have trouble defining just what characteristics constitute these constructs. They can recognize the qualities, but may be unable to pinpoint warmth, nurturance, and particular types of attire (dresses and heels, for example) as being feminine, or may disagree with this description. I leave the individual definitions of masculinity and femininity for future work and other researchers.

Limitations

This was the first use of the GSPS with these types of populations, but the samples were limited in many ways. To begin with, the NASIS was a sample of Nebraskans, who on average tend to be socially conservative (Cohen 2012). They were older, whiter, and more educated than state benchmarks (U.S. Census Bureau 2014). This is likely due in part to using a listed telephone sampling frame for the mail survey, in a state where 38.5% households had only cell-phones and no landlines and thus would not be listed (in 2011; Blumberg et al. 2012). We might expect different answers with a more representative sample, but there was still a great deal of variation along the GSPS with these respondents. The differences found here are therefore conservative tests of the scale.

The WLG sample suffers in other ways, beyond the differences from national benchmarks. Due to the recruitment method and the lack of a sample frame, I cannot generalize from this data. However, given the absence of information regarding gender minority status in benchmarks and sample frames, and limited resources for data collection, there is little alternative. It is frustrating that the different types of respondents from these surveys could not be captured in a single survey, allowing me to rule out differences from data collection. Sex explained between 64% (WLG) and 70% (NASIS) of the variance in gender (measured by the GSPS), which meant that there is still at least 30% of the variance unexplained. This suggests that the GSPS was picking up something separate from sex categories alone.

As a paper and pencil survey item, the GSPS is somewhat laborious. To begin with, the limited usage of VASs mean that the task is likely unfamiliar to respondents. In practice, they must fit multiple ideas into a small space, and perhaps decide how to

indicate multiple answers for one “location” (that is, if they think A [self] and C [society’s ideal woman] have the same value, how to communicate that). Further, they have to apply (potentially) complex constructs to a simple measure – writing a letter on a line. This has the potential to become messy or confusing (see Fig. 2.6 for examples of different response types). The complexity of the concepts is also an issue in a web based survey like the WLG, but it has different issues, such as potential technical issues (e.g. not having the software needed; Couper et al. 2006). While higher item nonresponse and breakoffs have been found using web-based VASs, this is a problem in the paper survey, as well. In the NASIS, there was higher item nonresponse than in the WLG (see Table 2.2), but there did not appear to be breakoffs *because* of the GSPS, at least not with returned surveys. This is easier to observe in the WLG, where the data is collected without them completing the survey. Just over 2% of the respondents answered the question prior to the GSPS, but not the question after.

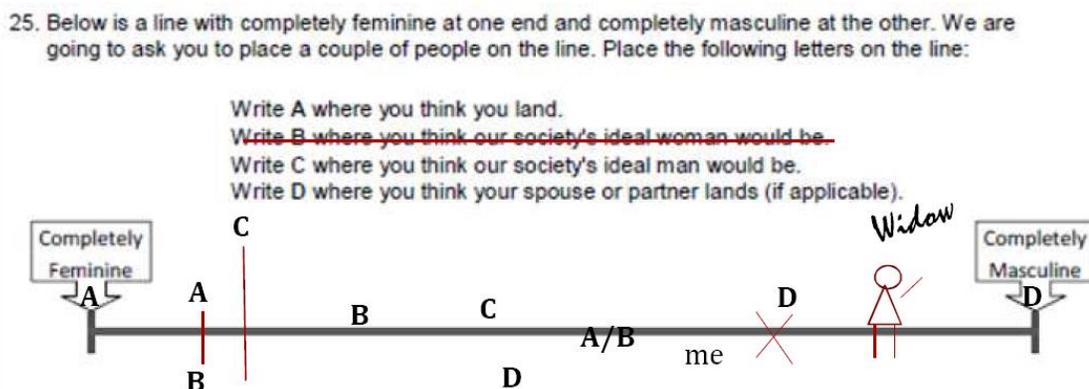


Figure 2.6: Examples of Different Responses to the GSPS in the NASIS

Data entry staff are also impacted by the mode of the scale. The messiness of the NASIS (as pictured in Fig. 2.6) is then passed on to those doing data entry. Hand coding with a ruler is time consuming, and involves making subjective decisions, given

responses like some shown in Figure 2.6. Gender inventories that take up several pages may be easier for coding, but the length is a tradeoff for both staff and respondents, perhaps requiring just as much labor for both, while also taking up valuable survey real estate. Given these issues, the web version may be a better choice for using the scale when it is appropriate for the target population.

Besides the practicalities of data collection, there are issues with the measures of and correlates with gender within these data. Under ideal circumstances, I would have used validated gender scales (e.g. the Conformity to Feminine Norms [Mahalik et al. 2005] and the Conformity to Masculine Norms [Mahalik et al. 2003] Inventories) for predictive and criterion validity assessments, but they would have greatly increased the burden for respondents. The majority of these measures are longer than desirable for most surveys (the Mahalik inventories would add a minimum of 178 questions), so are unlikely to be used in the future for this purpose. The stereotype content model (Cuddy et al. 2008; Fiske et al. 2002) was still useful, even though my findings highlight the need for adaptive measures of gender (i.e. being able to recognize change over time).

Conclusions

The work here captures a range of how the GSPS would perform amongst different populations, and how sex is associated with gender. Researchers who want to include gender measures in their surveys, but have limited space should consider the GSPS as a supplement to the sex category boxes. Is the scale better than such boxes? In some ways, but it is mostly complementary, adding another level to our understanding of gender dynamics in the social world. The greater practicality of the GSPS (compared to long, multi-item indices) increases the likelihood that researchers in fields outside of gender scholarship will take gender differences seriously. The findings presented here

are just the beginning of the investigation, and further work is needed on the scale. Just as important are the development, testing, and use of additional quantitative gender measures that capture the breadth of actual behaviors and interactions. As gender becomes less rigid, gender minorities gain more recognition, and our understandings of gender continue to evolve, the need for better measures will continue to grow.

References

- AAPOR. (2011), "*Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 7th edition*," The American Association for Public Opinion Research.
- Abele, Andrea E. 2014. "How Gender Influence Objective Career Success and Subjective Career Satisfaction: The Impact of Self-concept and of Parenthood." Pp. 412-26 in I. Schoon & J.S. Eccles (eds.) *Gender Difference in Aspirations and Attainment*. Cambridge, UK: Cambridge University Press.
- Acker, Joan R. 1990. "Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations." *Gender and Society*. 4:139-58.
- Acker, Joan R. 2005. *Class Questions: Feminist Answers*. Lanham, MD: Alta Mira.
- Acker, Joan R. 2006. "Inequality Regimes: Gender, Class, and Race in Organizations." *Gender and Society*. 20: 441-64.
- Badgett, M. V. Lee, and Nancy Folbre. 1999. "Assigning Care: Gender Norms and Economic Outcomes." *International Labour Review* 138:311-26.
- Ball, Carlos A. 2003. "Lesbian and Gay Families: Gender Nonconformity and the Implications of Difference." *Capital University Law Review* 31:691-749.
- Bem, Sandra L. 1974. "The Measurement of Psychological Androgyny." *Journal of Consulting and Clinical Psychology*. 42:155-62.
- Bem, Sandra Lipsitz. 1995. "Dismantling Gender Polarization and Compulsory Heterosexuality: Should We Turn the Volume Down or Up?" *The Journal of Sex Research* 32:329-34.
- Berkowitz, Dana, Linda Belgrave, and Robert A. Halberstein. 2007. "The Interactions of Drag Queens and Gay Men in Public and Private Spaces." *Journal of Homosexuality* 52:11-32.
- Biblarz, Timothy J., and Judith Stacey. 2010. "How Does the Gender of Parents Matter?" *Journal of Marriage and Family* 72:3-22.
- Blackstone, Amy, and Mahala Dyer Stewart. 2012. "Choosing to be Childfree: Research on the Decision Not to Parent." *Sociology Compass* 6:718-27.
- Blumberg, Stephen J., Julian V. Luke, Nadarajasundaram Ganesh, Micheal E. Davern, and Michel H. Boudreaux. 2012. "Wireless Substitution: State-level Estimates from the National Health Interview Survey, 2010-2011." *National Health Statistics Reports*, No. 61, October 12, 2012. Hyattsville, MD: U.S Department of Health and Human Services.

- Brush, Lisa. 2012. "Gender Scholars, the Next Generation: Where Do We Go from Here?" Panel presentation at the annual meeting of the American Sociological Association, August 19th, Denver, CO.
- Bureau of Sociological Research (BOSR). 2011. "NASIS 2010-2011 Methodology Report." Lincoln, NE: University of Nebraska-Lincoln, Sociology Department.
- Butler, Judith. 1988. "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory." *Theatre Journal* 40:519-31.
- Cella, David F. and Samuel W. Perry. 1986. "Reliability and Concurrent Validity of Three Visual-Analogue Mood Scales." *Psychological Reports* 59:827-33.
- Clements-Nolle, Kristen, Rani Marx, and Mitchell Katz. 2006. "Attempted Suicide among Transgender Persons: The Influence of Gender-Based Discrimination and Victimization." *Journal of Homosexuality* 51:53-69.
- Cohen, Micah. 2012. "Nebraska G.O.P. Draws a Tougher Map for Obama." FiveThirtyEight Blog, September 23, 2012. *The New York Times*. Retrieved September 28, 2014 (<http://fivethirtyeight.blogs.nytimes.com/2012/09/23/nebraska-g-o-p-draws-a-tougher-map-for-obama/>).
- Connell. R. W. 1987. *Gender and Power*. Stanford, CA: Stanford University Press.
- Connell. R. W. 1990. "The State, Gender, and Sexual Politics: Theory and Appraisal." *Theory and Society*. 19:507-44.
- Cotter, David, Joan M. Hermsen, and Reeve Vanneman. 2011. "The End of the Gender Revolution? Gender Role Attitudes from 1977-2008." *American Journal of Sociology* 117:259-89.
- Couper, Mick P, Roger Tourangeau, Frederick G. Conrad, and Eleanor Singer. 2006. "Evaluating the Effectiveness of Visual Analog Scales: A Web Experiment." *Social Science Computer Review* 24:227-45.
- Cuddy, Amy J. C., Susan T. Fiske, and Peter Glick. 2008. "Warmth and Competence as Universal Dimensions of Social Perception: The Stereotype Content Model and the BIAS Map." Pp. 61- 149 in M.P. Zanna's (ed.) *Advances in Experimental Social Psychology*. London: Elsevier, Inc.
- Davey, Heather M., Alexandra L. Barratt, Phyllis N. Butow, and Jonathan J. Deeks. 2007. "A One-Item Question with a Likert or Visual Analog Scale Adequately Measured Current Anxiety." *Journal of Clinical Epidemiology* 60:356-60.
- Davies, Lorraine, and Donna D. McAlpine. 1998. "The Significance of Family, Work, and Power Relations for Mothers' Mental Health." *Canadian Journal of Sociology* 23:369-87.

- Fausto-Sterling, Anne. 2000. *Sexing the Body: Gender Politics and the Construction of Sexuality*. New York: Basic Books.
- Fiske, Susan T., Amy J. C. Cuddy, Peter Glick, and Jun Xu. 2002. "A Model of (Often Mixed) Stereotype Content: Competence and Warmth Respectively Follow from Perceived Status and Competition." *Journal of Personality and Social Psychology* 82:878-902.
- Gallagher, E. John, Polly E. Bijur, Clarke Latimer, and Wendy Silver. 2002. "Reliability and Validity of a Visual Analog Scale for Acute Abdominal Pain in the ED." *American Journal of Emergency Medicine* 20:287-90.
- Gillespie, Rosemary. 2003. "Childfree and Feminine: Understanding the Gender Identity of Voluntarily Childless Women." *Gender and Society* 17:122-36.
- Hawkins, Alan J. and Jay Belsky. 1989. "The Role of Father Involvement in Personality Change in Men across the Transition to Parenthood." *Family Relations* 38:378-84.
- Hines, Sally. 2006. "Intimate Transitions: Transgender Practices of Partnering and Parenting." *Sociology* 40:353-71.
- Johnson, Allan G. 2005. *The Gender Knot: Unraveling our Patriarchal Legacy*. Philadelphia: Temple University Press.
- Johnson, Katherine M., and Jasmine Fledderjohann. 2012. "Revisiting 'Her' Infertility: Medicalized Embodiment, Self-identification, and Distress." *Social Science and Medicine* 75:883-91.
- Johnson, Katherine, and David R. Johnson. 2009. "Partnered Decisions? U.S. Couples and Medical Help-seeking for Infertility." *Family Relations* 58:431-44.
- Kazyak, Emily. 2012. "Midwest or Lesbian? Gender, Rurality, and Sexuality." *Gender and Society* 26:825-48.
- Kish, Leslie. 1965. *Survey Sampling*. New York: John Wiley & Sons, Inc.
- Levant, Ronald, Katherine Richmond, Stephen Cook, A. Tanner House and Maryse Aupont. 2007. "The Femininity Ideology Scale: Factor Structure, Reliability, Convergent and Discriminant Validity, and Social Contextual Variation." *Sex Roles*. 57:373-383.
- Lombardi, Emilia L., Riki Anne Wilchins, Dana Priesing, and Diana Malouf. 2001. "Gender Violence: Transgender Experiences with Violence and Discrimination." *Journal of Homosexuality* 42:89-101.
- Lorber, Judith. 1994. *Paradoxes of Gender*. New Haven, CT: Yale University Press.

- Mahalik James R., Benjamin D. Locke, Larry H. Ludlow, Matthew A. Diemer, Ryan P. J. Scott, Michael Gottfried, and Gary Freitas. 2003. "Development of the Conformity to Masculine Norms Inventory." *Psychology of Men and Masculinity* 4:3-25.
- Mahalik, James R., Elizabeth B. Morray, Aimee Coonerty-Femiano, Larry H. Ludlow, Suzanne M. Slattery, and Andrew Smiler. 2005. "Development of the Conformity to Feminine Norms Inventory." *Sex Roles* 52:417-35.
- McQuillan, Julia, Arthur L. Greil, Karina M. Schreffler, and Veronica Tichenor. 2008. "The Importance of Motherhood among Women in the Contemporary United States." *Gender and Society* 22:477-96.
- Messerschmidt, James. 2000. *Nine Lives: Adolescent Masculinities, the Body and Violence*. Boulder, CO: Westview Press.
- Myles, Paul S., Sally Troedel, Michael Boquest, and Mark Reeves. 1999. "The Pain Visual Analog Scale: Is it Linear or Nonlinear?" *Anesthesia and Analgesia* 89:1517-20.
- Olson, Kristen, Mathew Stange, and Jolene Smyth. 2014. "Assessing Within-Household Selection Methods in Household Mail Surveys." *Public Opinion Quarterly*. doi: 10.1093/poq/nfu022.
- Pfeffer, Carla A. 2009. "Trans(formative) Relationships: What We Learn About Identities, Bodies, Work, and Families from Woman Partners of Trans Men." PhD dissertation, Department of Sociology, University of Michigan, Ann Arbor, MI.
- Risman, Barbara J. 1998. *Gender Vertigo: American Families in Transition*. New Haven, CT: Yale University Press.
- Risman, Barbara J. 2009. "Gender as a Social Structure: Theory Wrestling with Activism." *Gender and Society* 18:429-50.
- Rupp, Leila J., Verta Taylor, and Eve Ilana Shapiro. 2010. "Drag Queens and Drag Kings: The Difference Gender Makes." *Sexualities* 13:275-94.
- Schilt, Kristen, and Tey Meadow. 2012. "Undoing Gender: Is It Possible? Is It Desirable?" Panelists presented at the annual meeting of the American Sociological Association, August 17th, Denver, CO.
- Shapiro, Eve. 2007. "Drag Kinging and the Transformation of Gender Identities." *Gender and Society* 21:250-71.
- Smyth, Jolene. 2007. "Doing Gender When Home and Work are Blurred: Women, and Sex-Atypical Tasks in Family Farming." PhD dissertation, Washington State University, Pullman, WA.

- Spence, Janet T. 1984. "Gender Identity and Its Implications for the Concepts of Masculinity and Femininity." *Nebraska Symposium on Motivation* 32:59-95.
- Spreen, Marinus. 1992. "Rare Populations, Hidden Populations, and Link-Tracing Designs: What and Why?" *Bulletin de Methodologie Sociologique* 36:34-58.
- Stacey, Judith, and Timothy J. Biblarz. 2001. "(How) Does the Sexual Orientation of Parents Matter?" *American Sociological Review* 66:159-83.
- Stets, Jan E., and Pater J. Burke. "Femininity/masculinity." Pp 997-1005 in *Encyclopedia of Sociology, Revised Edition*. Edited by E.F. Borgatta and R.J.V. Montgomery. New York: Macmillan.
- Tichenor, Veronica, Julia McQuillan, Arthur L. Greil, Raleigh Contreras, and Karina M. Shreffler. 2011. "The Importance of Fatherhood to U.S. Married and Cohabiting Men." *Fathering* 9:232-51.
- Torrance, George W., David Feeny, and William Furlong. 2001. "Visual Analog Scales: Do They Have a Role in the Measurement of Preferences for Health States?" *Medical Decision Making* 21:329-34.
- West, Candace, and Don H. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1:125-51.
- Westbrook, Laurel. 2010. "Becoming Knowably Gendered: The Production of Transgender Possibilities and Constraints in the Mass and Alternative Press from 1990-2005 in the United States." Pp 43-63 in *Transgender Identities: Towards a Social Analysis of Gender Diversity*. Edited by S. Hines and T. Sanger. New York: Routledge.
- Williams, Christine L. 1992. "The Glass Escalator: Hidden Advantages for Men in the "Female" Professions." *Social Problems* 39:253-67.
- Williams Institute, the. 2015. "LGBT Data Overview:2015." Retrieved June 8, 2015 (file:///F:/Alian/Downloads/263796139-Just-the-Facts-LGBT-Data-Overview-2015.pdf).
- U.S. Census Bureau. 2014. "State and County QuickFacts: Nebraska." Retrieved September 28, 2014 (<http://quickfacts.census.gov/qfd/states/31000.html>).

CHAPTER 3

SCALES AND STEREOTYPES: COGNITIVE INTERVIEWS WITH THE WORK, LIFE, AND GENDER SURVEY

Introduction

In almost all quantitative research, gender is measured as a binary construct: either male or female. This is problematic for many reasons, but here I focus on two issues. The first is that researchers who reduce the varied gendered experiences of the populace to only two categories, male and female, effectively dismiss or ignore gender minorities (those that do not conform to gender norms) whose diversity of gender experiences do not fit into these categories. The second, is whether or not the general populace will be able to understand and use measures of gender that capture more complexity than male/female sex category. When it comes to the measurement of gender, these two issues are highly relevant, as we need to both capture gender diversity *and* have measures that are easy to understand for respondents who do not think about gender on a regular basis. Through cognitive interviews, this research directly asks respondents about how they define gender and their attitudes towards and difficulties with a new gender scale.

Gender is not a clear cut concept (Factor and Rothblum 2008; Grant et al. 2011), and the relationships we assume between gender and other characteristics (e.g. family dynamics, work outcomes, health disparities) may not hold beyond the sex categories so often used as a proxy for gender. In reality, people exhibit a broad range of gendered behaviors and traits (regardless of sex) that can influence their social interactions – in both positive and negative ways. This diversity in gender is not captured in the typical gender measures used in surveys, but may be very important for understanding the influence of gender on sociological outcomes of interest. Failing to include measures of

gender diversity in surveys may also act as social closure, alienating people who do not cleanly fit the male/female dichotomy and contributing to the reification of biological essentialism. The reality is that we rarely ask people about how we categorize them, particularly about characteristics that are treated as “natural” and unchanging. This study directly asks respondents across the spectrum of gender about gender and its measurement.

Background

Measuring Gender

The measurement of gender is problematic in quantitative and large scale survey research. Even qualitative sociological research focused on other topics besides gender rarely asks for more than sex categories. Sex categories are a poor proxy for gender, conflating a medical decision at birth with one’s lived experience. There is an additional problem of definition. When we ask for gender, what do we want to know? Gender intersects with so many domains of our social lives (as children, parents, workers, etc.; Connell 1987; Risman 1998), it is difficult to parse out exactly what we mean when we try to measure gender. Do we want to know to what degree an individual conforms to societally proscribed roles (as West and Zimmerman [1987] define it)? Or do we want to know about West and Zimmerman’s sex categories- the identificatory displays that are read as membership in social categories? Do we want to know how people feel, how they appear to others, or contextual differences more in line with Butler’s (1988) unstable performances or Goffman’s dramaturgy (1959)? Despite this difficulty, researchers outside of sociology have tried to measure gender in several ways.

Gender scales are still being developed and used in fields outside of sociology. For the most part, these scales tend to focus on specific domains of gender, and the results are incredibly long batteries of items that are generally only tested on

undergraduate students. From psychology, Bem's 60-item Sex Role Inventory (BSRI; 1974) measures masculinity, femininity, and androgyny, and is still commonly used after almost 40 years. The BSRI was intended to capture the internalization of sex-typed desirable behavior for men and women, as well as the distancing from such qualities. Levant et al (2007) developed a 45-item femininity ideology scale that is supposed to be distinct from gender related interests, gender role stress, gender-typed personality traits, or global sex role behaviors (all items they define as dimensions of gender). Mahalik et al. (2003) and Mahalik et al. (2005) developed different scales for conformity to masculine or feminine norms, attempting to capture cognitive, behavioral, and affective dimensions. They defined gender role norms as those that constrain and guide feminine and masculine behavior, meeting societal expectations. These scales had eight or more subscales, totaling over 100 items each. A communications based scale (the Perceived Masculinity Scale; Chesebro and Fuse 2011) followed the trend in length with 50 items across eight dimensions. These lengthy scales focus primarily on behaviors and beliefs, which may or may not map onto the traditional sociological understandings of gender. The system of gender relies on shared cultural understandings, but is highly contextual, depending on social location (Ridgeway and Smith-Lovin 1999). To my knowledge, these scales have not been used in large scale surveys to examine associations with outcomes that typically interest sociologists, such as social stratification processes. Luckily, these scales are not our only option.

Visual Analog Scales

A Visual Analog Scale (VAS) is a line with polar defined endpoints that allows the respondent to answer on a continuum (Cella and Perry 1986). VASs are commonly used in healthcare, to measure pain (Gallagher et al. 2002; Myles et al. 1999) or anxiety (Davey et al. 2007), replacing longer indices. Because of the flexibility with content (the

end points and prompts can be tailored to the research needs), much of the research on VASs has been focused on their use in web surveys (Couper et al. 2006; Funke, Reips, and Thomas 2011; Studer 2012). The increasing number of internet accessible devices poses a problem for survey tools that rely on specific formatting (like VASs). Beyond potential technological limitations, research has found that greater complexity of the construct being measured using the VAS is related to higher item-nonresponse and longer response times, compared to other scale types (Couper et al. 2006).

Visual analog scales are not often used in sociological research. An exception is the Gender Self-perception Scale (GSPS) used by Jolene Smyth (2007) for her dissertation. The original GSPS, which was administered in a mail survey and in face-to-face semi-structured interviews consisted of a line 150mm long, with endpoints defined as “completely feminine” and “completely masculine,” and four people (self, spouse/partner, society’s ideal woman, and society’s ideal man) to place on the line. The web version, developed for this research, is shown in Fig. 3.1 and includes a fifth prompt asking respondents to indicate “where others view you”. The complexity of completing this task will likely vary across respondents. People who challenge gender norms have likely put more thought into their gendered self, relative to social expectations and thus may find completing the scale easier than those who have not thought much about their gender and society’s expectations. On the other hand, the constructs being measured with the GSPS are common, and hopefully easily understood by all. Masculinity and femininity are difficult to break down into required parts, but people generally have a strong sense of what they are (Spence 1984).

It has been suggested that it is overly simplistic to conceptualize femininity and masculinity as oppositional (Schippers 2007), as in the original GSPS. As a result, a

second version of the GSPS, where femininity and masculinity are measured separately, was created (see Fig. 3.2). Compared to the first version, it doesn't treat masculinity and femininity as oppositional (e.g., a person can be high on or low on both masculinity and femininity at the same time); however, it may be seen as more burdensome by respondents. In this chapter I examine the usability of both the original and new versions of the GSPS.

Below are a series of lines with completely feminine at one end and completely masculine at the other. For each line, please move the bar to the place you think best describes the person specified:
(Unanswered rows remain gray)

| | Completely Feminine | Completely Masculine |
|-------------------------------------|---------------------|----------------------|
| Yourself | | |
| How you think others view you | | |
| Your spouse/partner (if applicable) | | |
| Society's ideal woman | | |
| Society's ideal man | | |

Figure 3.1: GSPS1 in the Work Life and Gender Survey

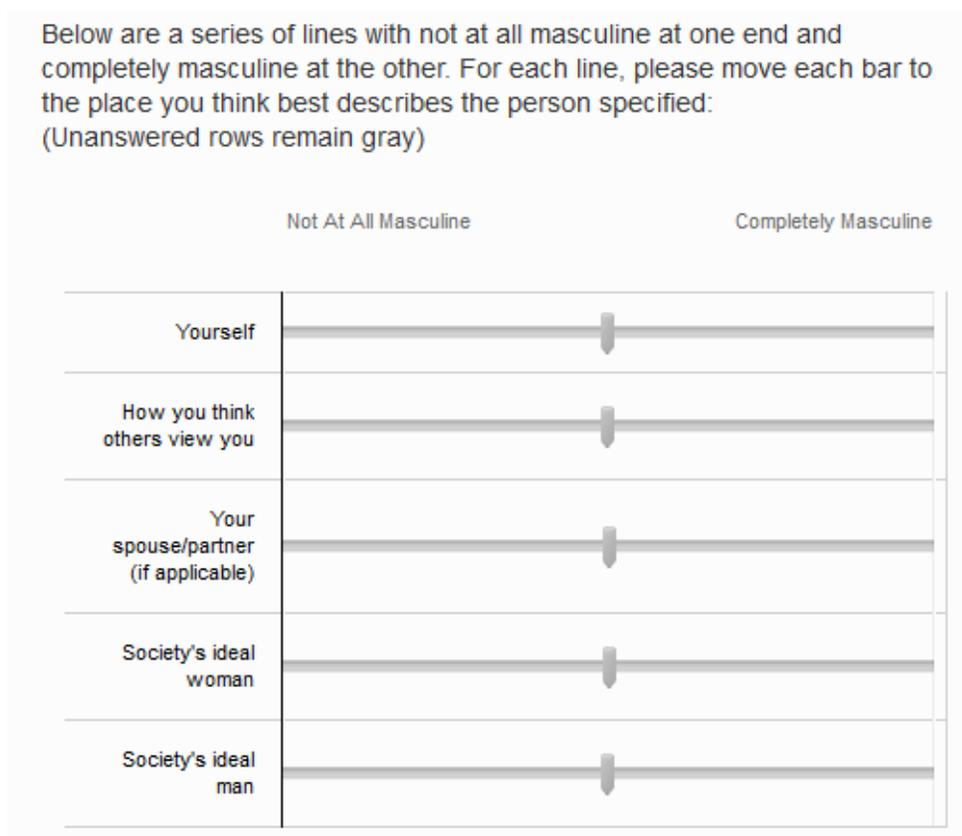


Figure 3.2: GSPS2 in the Work, Life, and Gender Survey

Cognitive Interviews

I examined how people understand gender and how well the GSPS scales worked for them using cognitive interviews. Cognitive interviews can take many forms, but a common method involves think-aloud interviewing with a single individual while they complete the questionnaire (Willis 1999, 2005). In a think-aloud interview, the participant is asked to complete a task (in this case, a survey), and explain how they are making their decisions. For example, for a question like “Do you still live in the same residence as you did two years ago?” an ideal respondent would describe out loud how they are thinking about residences and time, any part of the question and answer process that is unclear, and how they are arriving at their final answer. Verbal probing or semi-structured interviewing may be completed during the task (as done here), or at a later

time, such as at the end of the questionnaire. The interviewer records the process, and these recordings are analyzed to better understand what is or is not working within the questionnaire. For example, if the interviewee struggles with the meaning of a word, has several different ways of interpreting a question, or interprets the size of a text box as how important the researchers consider their answer, clarifications can be added and formatting changed to assist the cognitive response process (Tourangeau, Rips, and Rasinski 2000; Willis 2005).

The cognitive response process is a model for how individuals answer survey questions. It is a five step process, including perception, comprehension, retrieval, judgment, and editing/reporting (Dillman, Smyth, and Christian 2009; Jenkins and Dillman 1997; Tourangeau et al. 2000). One must find the information being asked amongst other design features (perception), understand the question that is being asked (comprehension), retrieve the relevant information from memory or records (retrieval), use the retrieved information to generate a response (judgment) and provide the information in the desired format (reporting). Difficulties with any step can result in measurement error or nonresponse error including item-nonresponse (missing data) and unit non-response (refusals or break-offs). Cognitive interviews provide an opportunity to see how respondents go through the response process for the measures being tested, and make adjustments to the stimulus before fielding the materials. Since a primary concern with this research is that the gender measures be both inclusive and easy to understand, this step was very important. It also allowed, via probing, a chance to directly ask respondents about their understanding of concepts used in the survey.

Research Questions

The research questions guiding this research can be separated into the general (concepts) and the specific (utility). In general, I wanted to know:

- 1: How do respondents understand the concepts of gender, gender identity, and femininity and masculinity when asked in a survey setting?
- 2: Are these concepts understood differently by cisgender versus trans persons?

In addition, given the overall focus on the GSPS scale, it was important to understand how people utilize the scale in its different forms. To this end, I asked the following:

- 3: Do respondents have difficulty using the scales?
- 4: Do respondents have a preference for a scale that measures masculinity and femininity as opposites along a single continuum or a scale that measures them separately, and why?
- 5: Do the difficulties and preferences of the respondent differ by their gender status?

Method

Participants.

In the summer of 2014, participants were recruited using an advertisement to complete a think-aloud cognitive interview while completing a web-based survey. The ad was shared via facebook, local listservs, and fliers posted around the University of Nebraska-Lincoln campus. There were two versions of the flier – one more general and the other directed towards gender minorities (see Appendix B). Both versions included a description of the survey (including the \$25 compensation), and tear-off strips with my email address for arranging participation. Twenty participants responded to the advertisement and were able to schedule a time within the data collection period (basic

demographic descriptive statistics are shown in Table 3.1). Thirteen participants identified as cisgender (five women and eight men), and seven identified on the trans spectrum: two transmen, two transwomen, one agender, one genderfluid, and one genderqueer person. They ranged in age from 19-59, although the cisgender respondents were younger on average ($M=27.5$, range 19-55) than the trans respondents ($M=31.9$, range 21-59). All but one of the respondents lived in Nebraska. Due to the small number of respondents, the relatively small community of gender minorities in the area, and some shared knowledge of the respondents, I limit the reporting of individual characteristics in this research. For the same reason, I will refer to

| | Mean/% |
|---|--------|
| Female (assigned at birth) | 45% |
| Gender identity matches birth certificate | 75% |
| Gender Identity: Woman | 25% |
| Gender Identity: Man | 40% |
| Gender Identity: Transman | 10% |
| Gender Identity: Transwoman | 10% |
| Gender Identity: Agender | 5% |
| Gender Identity: Genderfluid | 5% |
| Gender Identity: Genderqueer | 5% |
| Age | 28.50 |
| Latino/Hispanic | 5% |
| Race: White | 60% |
| Race: Asian | 25% |
| Race: Multiracial | 15% |
| Student | 45% |
| Married | 20% |
| Heterosexual | 45% |
| Education: HS diploma | 15% |
| Education: Some college | 25% |
| Education: 2 year degree | 5% |
| Education: 4 year degree | 30% |
| Education: Graduate degree | 25% |

those who were not cisgender as “trans” rather than using a more specific description when discussing patterns in the results.

Materials

The respondents were asked to complete a web survey with 123 possible questions (including all of the skip patterns). The survey was programmed into Qualtrics, a web survey software. It was completed using a Dell laptop with a 15.6” screen, using the Firefox web browser. When the respondents arrived, the first question of the survey was available on the screen so they did not have to find it on the web or log in.

The survey consisted of four thematic sections: work, barriers (harassment and discrimination), sex and gender, and demographic information. The majority of the questions were in an expected format – closed-ended response options (nominal and ordinal, Likert-scale response options) and open-ended questions. A notable exception was the GSPS scale, which was made up of a series of visual analog scales. Two versions of the GSPS were included. The first scale (which was shown in Fig. 3.1, and hereafter referred to as GSPS1) had “completely feminine” and “completely masculine” as endpoints of a single continuum. The second scale (hereafter referred to as GSPS2) was made up of two separate continuums, one for masculinity and a separate one for femininity. The top half of the scale is shown in Fig. 3.2. The endpoints were “not at all masculine” and “completely masculine.” The bottom half was identical, except that the word masculine was replaced with feminine. In application, respondents would only receive one scale (either the GSPS1 or the GSPS2), but to get feedback on both versions, interviewees in this study saw them both.

Cognitive interviews are adaptive, responding to problems with the stimulus as they arise, and making changes while data is still being collected (Willis 1995, 2000).

One of the benefits of this process is that “improvements” based on early interviews have a chance to be tested to avoid unintended negative effects. Within this context that means that the survey the first participants saw was different than the one the last interviewees saw. Willis (1995) recommends completing changes in batches – after a certain number of interviews. I addressed technical issues and typos as they were caught, but made changes based on the interviews after the first four interviews, then again after the next eleven, and the last batch after the last five. Some of these changes were small (e.g. emphasizing words that respondents were skipping over, or reordering nominal response options), while others involved adding information to the question stem, or adding response options where they seemed necessary, such as “never thought about it before” on certain gender questions.

One edit directly impacted the GSPS, and was related to the mode of the survey. The original GSPS was completed with pencil and paper, and the endpoints were 150mm apart. The task in the web survey – a slider bar (as shown in Fig. 3) – had a default setting that included numbers across the top of the first slider, as well as horizontal grid lines. The Qualtrics design literature did not include information on how to change/remove the numbers (although I was able to remove the grid lines), so the first respondents saw Figures 3.1 and 3.2 with the numbers 0-150 (in ten point increments) along the top from left to right. After respondents commented that 150 was more difficult for them than percentages would be (0-100), I changed the range to 0-100 (after the third interview). During this time, I also contacted Qualtrics to find out how to remove the numbers, and was able to remove them after the fifth interview. When *any* numbers were present, more respondents explained their answers in terms of percentages. Once the numbers were removed, this was far less common.

Procedure

Most of the respondents came to a lab in a building on the university campus. The exception was one interview that was conducted in the respondent's campus office. The lab was a room roughly 12'x12', with no windows, several desks with computer monitors, and a table moved to the middle of the room. Besides my note-taking materials, the table held an audio recorder, laptop, mouse, box of tissues, two bottles of water, a pen, and two copies of the informed consent.

When they arrived, I greeted the respondents, then asked them to read and sign the informed consent. I answered any questions they had, and gave them both the compensation (in an envelope) and a copy of the informed consent to keep for themselves. I then went through the protocol (shown in Appendix C), which included going through the interviewee training questions (Dillman et al. 2009; Willis 1999, 2005), and explaining the cognitive response process (Dillman et al. 2009; Jenkins and Dillman 1997; Tourangeau, Rips, and Rasinski 2000) in lay terms, so the respondents understand the types of information the interviews are meant to yield. The training questions ask the respondent to answer simple questions (e.g. think about where you live – how many windows are there?), but out-loud, explaining how they get their answer. Besides providing an opportunity to guide the respondent through the task and illustrate the different ways people may answer the same question (e.g. where did you start counting? Did you include any windows inset in doors or sliding glass doors?), it gets them comfortable talking, helps them understand the information being sought, and the reason for their time and effort.

After completing the training, I placed the laptop and mouse in front of the respondent, and started the audio recorder. They then started the survey while I followed

along on a paper copy and took notes. When appropriate, I asked probing questions to help clarify their comments (e.g. “in what way?” “can you explain how you decided on that answer?”), and to address my specific research questions (discussed in detail below). When they finished, I completed my questions, and answered any they had, before thanking them for their time. The average interview lasted 48 minutes, but they ranged from 20 minutes to two hours and 15 minutes long (this does not include time spend with informed consent or training questions).

My Role

As the interviewer, the respondents had to interact with me. I am not a gender minority, and my appearance may have influenced the responses I received. I am a fat, queer, cisgender woman, with visible tattoos/piercings, and unnaturally colorful hair (early respondents saw bright pink and lavender hair, while the later ones saw something closer to blonde). I did not perceive any reticence based on my appearance, but since I did not have a confederate assisting me, I had no other interactions to compare our exchanges to. Given my appearance, it is likely that respondents would feel more comfortable sharing more liberal attitudes, but less comfortable espousing conservative viewpoints.

Coding

During each interview, I followed along using a paper copy that included question numbers, and the follow-up probes I was using for items of specific interest. As respondents made comments or gave specific feedback, I took hand-written notes on a legal pad. Each interview started on a new page, and were coded with the random number assigned each respondent and the date and time. As recommended by Willis (1995, 2000), whenever the interview schedule allowed (which was in all but 2 cases), I

typed up more detailed notes immediately after the interview, including the material from the hand-written notes. These notes included overall impressions of the interview, information voluntarily shared that was not part of the survey but was relevant to their understanding of gender, and notes about the survey design. For example, my notes for the first respondent included that they suggested a “not thought about it before” response option as well as my thoughts on the applicability of that option for other questions. The detailed notes were the primary source of data for thematic coding; however, when the notes seemed unclear, the recordings were revisited. All quotations in this text came from the recordings.

The format of the cognitive interviews is adaptive, so not all questions were asked of everyone, but they were asked of most. In particular, the earliest respondents had fewer probes. Also, some probes were not as successful as others, not because of the question itself, but because of how the respondent answered it. For example, several respondents defined gender and/or gender identity using sex categories. While this response provides an answer to the question, and helps me understand what they are thinking about, it lacks detail or context. Because I am most interested in what people are thinking about when they answer the question, I chose not to do additional probes in cases like this. Not only was the answer fairly clear, but probing may have resulted in changing the original or later answers, or making respondents feel like their answer is wrong. I asked clarifying questions when necessary to help me understand, or when the answer did not seem to address the question asked.

The focus of this chapter is the answers to five probes about gender and responses to the GSPS scale that were asked in the barriers and sex and gender sections of the survey. The first question that mentioned gender was in the barriers

section –How much has your gender helped your pursuit of job opportunities?” After this question, I asked the respondents “When you read ‘gender’ in that question, what did you think of?” The next probe came after the question, “Which of the following best describes your gender identity?” Here I asked, “When you read ‘gender identity,’ what comes to mind?” After respondents completed the GSPS, I would stop them and say, “Before we continue, I would like to ask you some questions about the tasks you just completed.” I then asked the respondents “What comes to mind when you read femininity?” and “...and for masculinity?” I also asked about the difficulty of the task, and their preference for one form over the other (since they all completed both GSPS1 and GSPS2, and in the same order). I asked, “Of those two scales, did you prefer one over the other? The answers to each of these questions were gathered together for comparison and coding.

To code the probe answers, I copied the answers from my typed notes into a table (see Appendix D). The rows were defined by respondent number, and the first columns contained their gender minority status (cis/trans), and their sex (if cisgender). These were followed by a column for each probe. When complete, I printed the table, and used color coding to designate different themes. I expected to find some conflation between sex and gender (e.g., defining gender as sex categories), so that is the first thing I coded. Then I systematically went through each column (and repeated the process iteratively), using different colors to circle different blocks of text such that those with the same theme were the same color. When themes seemed to be addressing the same issue, I combined them (e.g. roles/actions). I did not treat each answer as mutually exclusive, so some individual responses had up to three themes. When I was done coding, I then counted the number of cells in each column that fit each theme, and broke

each down by gender status. The themes and differences by gender status are described in the next section.

Results

I separate the results into two sections: the concepts and the utility of the scale. The research questions addressed in the concept section are:

- 1: How do respondents understand the concepts of gender, gender identity, and femininity and masculinity when asked in a survey setting?
- 2: Are these concepts understood differently by cisgender versus trans persons?

Concepts:

“What does gender mean to you?”

All of the participants were asked about how they understand gender when it was first mentioned in the survey (after the question “How has gender helped your job opportunities?”). This was the first structured probe of the survey, and occurred approximately after the first third of survey, depending on whether the respondent was employed and other skip patterns. There was a great deal of overlap in themes, with many respondents talking about multiple aspects of gender. Overall, I coded five themes: references to biology, interacting with others, identity, use of ‘lingo,’ and work-related definitions.

Thirty-five percent (6/20) used sex categories (male and female) to define gender, and the majority of these responses (83%) came from cisgender respondents. The flip side of this is the rejection of biological definitions, as with two (trans) respondents who specifically said “Not linked to their biology,” and “I assume it meant gender identity, not biological sex, although that is also nebulous” (trans).

A similar number of participants (7/20) described gender in interactive ways – as a performance, presentation, perception, or relative to others. This was more in-line with the understanding of gender scholarship, although only two of my respondents discussed studying gender. One respondent talked about both gender as performance and sex categories, which suggested to me that they do not hold an essentialist view, but do not have the language to communicate a different perspective. Their answer to this probe was:

”Well, with gender, cuz of me, I know that gender is who you identify as, what you identify as, not only whether you identify as female... So I pretty much answered ‘em how ...they ... how they perceive gender. Because I know that the way I perceive gender is different than how someone else perceives gender may not be the same” (cis man).

This respondent was also one of the six respondents who talked about identity in their explanation. One third of these used identity in conjunction with the biological description of gender. Out of the six, only one gave the exact same answer to the gender identity question that was asked approximately (depending on skip patterns) eight questions later, implying that they think about gender and gender identity differently, even when using the same language. Alternately, this may have been a subtraction effect – since they had already talked about identity and gender, they did not need to talk about it again.

Gender labels, or ‘lingo’ (my word, not theirs; i.e. cisgender, transgender) were part of the definitions for three of the respondents. None of the trans participants used these words to define gender, instead it was three cisgender folks (two men and one woman). Of these, one mentioned studying gender, but the others made no mention of their education or interests in the same way.

Unsurprisingly, given the placement of the first probe and that the survey began with questions about employment, three people (two cisgender, one trans) made specific references to work when defining gender. Each talked about a different aspect of gender and work. One talked about gender stereotypes in hiring (cis man: “I know that there are jobs that mostly look for males, and jobs that mostly look for females”), one talked about underrepresentation of women in certain fields, and pay discrimination (cis woman: “Um, when I ...as a woman in xxxxx, I always think of that as there are not that many females in xxxxx, females being underpaid, that kind of thing.” 3), and the third talked about hiring discrimination (trans: “Um...mainly just think about men versus women. Because I know that there is discrimination in hiring processes for women...”). It was impossible for me to tell if these answers would be the same in a different context.

Overall, there were some clear differences by gender status. More cisgender respondents used sex to define gender, and used gender labels (e.g. cisgender and transgender) in their descriptions, while more trans respondents talked about identity and rejected biological definitions. The use of biological terms seemed to be a defining line by gender status. Given the similar divide in using labels (or “lingo”), it was possible that (some) cisgender respondents using biological language just lacked the vocabulary to talk about gender in other ways. This has repercussions for how we ask questions and collect data related to gender.

3 Details of response hidden to protect the respondent

“When you read gender identity, what comes to mind?”

Again, all of the respondents were asked this probe. This prompt came after the respondents were asked about their own gender identity. Perhaps because of being asked about gender earlier, the answers were not as complex, but varied more (there was less overlap of themes). This resulted in only four themes: interacting with others, labels/change, sense of self, and seeing gender identity as the same as gender. In addition to the themes, there were two responses that could not be categorized (discussed at the end).

A quarter of the interviewees talked about interacting with others in describing gender identity, like this respondent: “I think of it in terms of gender performance. I perform a female, feminine, woman identity” (cis woman). Of these five, all but one used the same language choices for both gender and gender identity: performance/performativity, presents/presentation, perceive/perception. Two of these people were cis, and another two were trans. Another trans person was the only one to mention recognition (i.e. acknowledgement from others) while defining gender identity, which I expected to hear more often, given the marginalization of gender minorities in many areas (Grant et al. 2011), importance of recognition in the process of “doing gender” (West and Zimmerman 1987) and popular culture usage (Hache 2014; Harris Perry 2012).

Another quarter of the sample (as there was no overlap) used labels or change in gender to describe gender identity. One respondent called them “qualifiers” – the labels we use to express our identities: “cisgender, trans, genderqueer, gender fluid.” Two people mentioned changing your sex or gender when defining gender identity. For example:

"I think of myself as a male, because that is everything I know. But I know a lot of people consider themselves transgender, and I've always thought of that as you don't like being male or female, or you are in the process of switching your sex, and that is pretty much how I think of it."(cis man)

Like the example above, three more respondents talked about their sense of self in describing gender identity. Beyond describing their own sense of self, the others also explicitly discussed their perceptions. Another said "the internal sense of what you are" (trans) while the last said "who you identify yourself as" (cis).

Finally, three respondents described gender identity as the same as gender. One trans respondent said gender identity is "the same as gender. The two can be used interchangeably." They were the only trans person to say so. One of the cisgender respondents answered simply that it is the same as gender, while the other described it "as how you identify as male or female," which was how they defined gender. This both challenges gender scholarship and illustrates the messiness of using such terminology. If we insist on defining gender as the managing of self in light of social norms (West and Zimmerman 1987), and gender identity as an internal thing (Hines, Brook, and Conway 2004), we run the risk of confusing our respondents, or misinterpreting their responses due to the conflict between these two ideas (public versus private).

There were two responses that stood out as extraordinary. The first, from a cisgender person, was that their first thought when reading gender identity was about gender identity disorder, but then they realized it did not say that. This seems to reflect their privilege in not having to think about their gender identity on a regular basis. The other response was a rejection of the phrase "gender identity." They described it as "sloppy," failing to be applicable for all:

"It's like...uh... when you talk about identity, I...I think it kind of appeals to the notion that there is a higher thing that you identify with – like a

conviction. Like in a sense that with a political party or a nation...or religion. When it is a matter of gender, like this, it's not really a matter [or conviction]. You might possibly identify that way, too..." (trans)

From this quote, you can see that this person sees their gender as a fact, not something that is changeable or that needed to be believed in. While these responses are different, they both reflect a view of the world that is not malleable. It is possible that both of them see variation in gender identity as a psychological concern, but the trans person does not consider it in need of "fixing."

Unlike the definitions of gender, there were not clear distinctions in definitions of gender identity by gender status. This was in part due to the greater variability of responses, but it also reflected the overall pattern of participants comparing oneself and others (interaction, labels, etc.). This shared idea of gender identity should have made the measurement of gender identity easier, but differences in language use or conceptualization may have slowed the response process for some respondents, as they thought it through.

“What comes to mind when you read femininity/masculinity?”

This question was asked after completion of the GSPS scales (or at the end of the survey) and the answers did not vary much. The responses were categorized into four related camps: stereotypes, characteristics/adjectives, roles/actions, and the media. Six people (three cis and three trans) specifically mentioned “stereotypes” in their answer, while five more (five cis and 1 trans) described adjectives associated with femininity and/or masculinity (e.g. girly, manly). Four (all cis) described roles, but none discussed roles alone. Two (one cis, one trans) spoke only of media, although another three (two cis, one trans) used media in conjunction with other aspects. Some felt conflicted by their definition:

“I’m thinking about...well I think when I’m viewing society’s ideals ... I’m viewing it as sort of stereotypes, or tropes that we think of in the media. Feminine portrayal, right? So I’m thinking more about, unfortunately, Scarlett Johansen than like bell hooks. But that is just what I am thinking about society’s ideals. When I am thinking about how other people view me, again, I go based more on looks than...because I am viewing gender as a performance rather than an innate sort of identity.” (cis woman)

It was possible (and even likely) that these responses were influenced by asking them to rate societal ideals in the GSPS, effectively priming them to think about ideals. The quote above was not a typical answer, though, and the specific discussion of “ideals” was not common. Like the above example, 32% of respondents asked talked about more than one of these themes.

The range of descriptions of femininity and masculinity was not very broad. As far as roles/actions, femininity was limited to carework (homemakers, housework) and vanity (spending time on self-care), while masculinity was defined by occupations (workers, breadwinners, manual labor) and athleticism (bodybuilders, playing sports). Roles and adjectives were combined by some respondents, like the following:

“[[femininity] I guess, I think of like of society’s perceptions of the female like doing housework or dressing girly, or not doing dirty things outside, and raising children ...[masculinity] Not as emotional, um, I guess. More just like, decisive, kind of like the leader, Um I guess like, more like aggressive, and like, and like, more action oriented versus like a feeling oriented.” (cis woman)

This example used roles to define femininity, and adjectives to define masculinity, which was not always the case. Overall, a broader range of adjectives were used to describe masculinity compared to femininity. “Girly” was used by two more respondents to describe femininity, and with a fourth talked about caring about beauty and dressing up. In comparison, besides the adjectives used above, masculinity was described as manly, and tough. All of these adjectives were given by cisgender respondents. For the most part, the trans respondents used broader concepts to define femininity and masculinity.

One trans respondent said:

“There was not anything in particular. More like vague notions of what those mean. I mean, it is bit more of an abstract thing, so, nothing actually really came to mind, just vague feelings of what those mean [“Okay, so did you think of like, stereotypes, or...?”] A mix of stereotypes and actual behaviors. Sort of where social expectations of people of various genders lie, and the ah, social archetype of masculine and feminine. Somewhere between those things.” (trans)

While unwilling to be more specific, this was illustrative of the difficulty of defining masculinity and femininity (Connell and Messerschmidt 2005; Schippers 2007; Spence 1984). This respondent, while completing the GSPS, easily discussed their femininity and masculinity relative to a friend, so the difficulty is clearly not with understanding (or even applying) the concepts. The issue seemed to be with thinking of the concepts within the larger society, perhaps due to how their own gender mis/aligns with broader social norms.

There were some standout responses from these common themes. One cis respondent (a religion scholar) said they thought about religious ideals – what is considered virtuous for men and women. A trans respondent said they thought of hetero extremes, where deviations are criticized. Another trans respondent said “I think it’s bullshit that we assign genders to actions.” Far more common (26%) were answers about the media – either broadly (e.g. “media portrayals”) or specifically (e.g. “old spice commercials”).

The subtle differences in response to femininity and masculinity were not structured by gender status. There were far more similarities across the groups. For example, a trans respondent said this:

“I guess, femininity...I think of....I don’t know... I don’t know how to describe it. Um, I feel like I’m kind of queer as a guy, so that feels like it is associated with femininity. Um, and the masculinity, I think of as some, some physical. Like large, muscular, some things like that. But also like aggressive, or things like that, or stoic, and things like that. I’m definitely more emotional, and things like that.” (trans)

Other than the self-reflection, this answer was similar to the earlier example of roles and adjectives. Both respondents had a more developed idea of masculinity than femininity, but they also communicated tentativeness about the concepts. It should be noted here that neither had issues completing the associated scale. This supports Spence’s (1984) assertion that people can recognize the concepts, but have trouble breaking them down into individual parts.

In answer to my first research question, there was variability in how respondents understood (or at least articulated) gender and gender identity. There was more overlap of themes in defining gender across different respondents (average of 1.7 themes per respondent). The conceptualization of gender identity was more distinct, but with fewer

themes. Here, I saw a break into more unique responses. Although there were a couple of extraordinary answers, overall the definitions of femininity and masculinity were different than either gender or gender identity, but with underlying similarities. This led me to conclude that the GSPS was capturing the interactive components of gender – how well respondents fulfilled social stereotype for men and women. This comparison between social selves aligned with the idea of gender as a performance. The overall similarities by gender status in defining masculinity and femininity demonstrated this. This answered my second research question.

Utility:

In this section, the respondents reported on how they use the GSPS scales. The research questions addressed are:

3: Do respondents have difficulty using the scales?

4: Do respondents have a preference for a scale that measures masculinity and femininity as opposites along a single continuum or a scale that measures them separately, and why?

5: Do the difficulties and preferences of the respondent differ by their gender status?

“Would you say this is a difficult or easy task?”

After completing both scales, the respondents were asked about the difficulty of the task. The bulk of the interviewees (45%) described the scales as difficult. From the respondents that elaborated on their answer, the main difficulty seemed to come from a disconnect between their own self-perception and how they perceived societal ideals. This might have been a reporting issue (how to answer), or it may have been due to context effects from the questions about society’s ideals. One said kind of difficult, another moderately, and a third said very difficult. Thirty-five percent (7/20) said the task was easy – one respondent said: “I would say it was ...it was easy. I wouldn’t say it

was...I mean, it was clear, it was interesting. I like thinking about this sort of thing” (trans).

Four people gave answers that did not fit into these categories. One person said “I didn’t like it,” while the others said it was both difficult and easy, or specifically in-between. For example, one said “I would have to say in-between. Like I said, I don’t like society’s ideal, but I recognize what it is.” Only one respondent talked about the multidimensionality of masculinity and femininity as the reason for their answer:

“I would say it was a difficult task. [“Can you tell me why?”] Uh...largely because it takes um, a very wide, uh, multidimensional sort of qualities and tries to press them down into a single scales, and you are trying judge yourself and others. And it’s just, I think, very arbitrary in some ways” (trans).

This was the only respondent to explicitly mention multidimensionality (which aligns with the gender scholarship on the measurement of gender). This respondent’s answers to my questions stood out from the others in many ways, which makes it easy to write them off as an anomaly. However, if we were to pretend this sample was representative, one out of seven (or even out of twenty) is enough to be a cause of concern for gender measurement. It should be noted that they did provide answers to each scale, but they spent more time on them than most respondents, indicating the additional burden. This needs to be considered for future usage.

At the beginning, due to a programming issue, the scales had numbers (1-150) across the top of the slider. Until the numbers were removed, they were used by some respondents in deciding their answer (e.g. “I would say I am 20% feminine”). One respondent during this period said they would prefer a one to five scale, or a Likert-type scale (strongly agree to disagree):

“Kind of [difficult]. It was difficult to pick one number out of ten, if it were like 5 I think it would be easier to choose.... Just because there are so many choices, that was more difficult to like, think, for it to feel fitting. Because if there are fewer choices, it would feel more fitting, I feel...I would prefer choices instead of a sliding scale” (cis woman).

This respondent was the only one to suggest a completely different format than the ones presented.

Overall differences in difficulty are shown in Table 3.2. The trans respondents were fairly evenly split between describing the task as easy or difficult. The exception to this described it as moderately difficult, which was similar to cisgender answers. In terms of difficulty, gender status did not appear to be an issue.

| | Cisgender | Trans |
|------------|-----------|---------|
| Easy | 6 (46%) | 3 (43%) |
| In-between | 3 (23%) | 1 (14%) |
| Difficult | 4 (31%) | 3 (43%) |
| Total | 13 | 7 |

“Which version do you prefer?”

The last probe I asked about the scales was if they had a preference for the continuous version, or the two separate scales. A majority of the interviewees preferred the two separate scales (47%), like this respondent:

“I liked the where they separated feminine and masculine versus on the same. [“Why?”] Um, because it made me consider one thing specifically versus both at once. Because like when I was looking at the ones that are feminine and masculine, I was like how feminine am I? and then I like need to decide how feminine I am in relation to masculinity” (cis woman).

Others were more succinct: “I feel the two scales is far more accurate” (trans). There was a clear difference in answer by gender status related to the continuous scale. Seven of the respondents (six cis and 1 trans) expressed a preference for the continuous scale.

Most of the cisgender respondents did not elaborate on their choice, but this trans respondent did:

“I liked the continuous one. [“Just easier? Or it captures more...?”] Yeah, it’s easier. I think it’s easier for me to conceptualize than um than sort breaking it down by feminine and masculine, and sort of isolating in those ones” (trans).

This aligned with another respondent who liked the continuous scale because they envisioned some neutrality within the continuum, to capture androgyny.

While three of the respondents did not have a clear preference, it was a sometimes complicated process. For example, this respondent communicated their conflict with the scale:

“For the sake of ease for me doing it, it is much easier for me to do the masculine on one end and feminine on the other. But also for gender dichotomies, I don’t want that. Um... yeah, I guess, which one I would rather complete is different than the one I think is the right one to use” (trans).

This respondent was obviously struggling with a conflict between the cognitive response process (burden through comprehension, retrieval, and judgment) and personal ideologies. Other trans respondents talked about the same issues, but had a preference for the separate scales (the GSPS2). The others described them as the same (cis) or did not have a preference for one scale over the other.

The utility of the GSPS was the focus of research questions three through five. Many of the respondents found the task cognitively difficult. The problem seemed to be primarily an issue of reporting. The interviewees understood what was being asked of them, and they had an idea of their own femininity/masculinity, but fitting this information onto the scale was an issue. There did not seem to be a consensus about what was difficult about the task. As noted in the findings, some thought it did not allow for

androgyny, or did not capture enough, while others disliked the breadth of options. Even those that thought the scale was easy had issues mapping themselves onto it. This was then related to their attitudes towards the scales.

The cisgender respondents did not have a clear preference for one scale over the other, overall. This was not the case for the trans respondents, where 70% thought the two separate scales was superior (even if they also liked the GSPS1). Based on this information alone, the GSPS1 may not go far enough in capturing gender variation due to the oppositional structure of the scale. This answered the last research question, whether there were differences by gender status.

Discussion

A primary concern when starting this research was that expanded gender questions would be insufficient to capture the trans experience, or would be unclear to those who do not think about gender in their daily lives. These cognitive interviews illustrated neither to be true. There were clear gender status differences in the language used to define gender, and femininity/ masculinity, but it seemed that the biggest divide between the trans and cisgender respondents was the available vocabulary to articulate their response. Most respondents used the terms in similar ways in the context of the cognitive interview (outside of the prompt). For example, one respondent said the following while completing the GSPS1:

“I have more masculine behaviors, but more feminine sort-of performance and dress. So I sort-of speak more masculine-ly, but when people view me, my gender performance would be more feminine than anything” (cis woman).

Not every respondent was as clear about their cognitive processes while completing the survey, but the narratives were similar.

The results here support Spence's (1984) argument that people's "personal senses of masculinity or femininity appear to be phenomenologically real, even though their meaning remain unarticulated, and to be relatively independent of any given class of masculine or feminine attributes and behaviors" (pgs. 78-9). She went on to describe how difficult it is for even well-educated adults to explain what they mean by these terms. Even though every respondent completed three scales that referenced femininity and masculinity, labeling themselves twice on each, few made references to themselves when I asked about what came to mind. From these data then, it seemed that when people answer the GSPS (regardless of version), they were indicating how much they fulfilled social stereotypes for women and men. This seemed to be where much of the cognitive difficulty comes in.

The differences in concept and utility of the scale seemed to vary by gender status, although all were able to answer them. Given these responses, I might have expected to find more survey break-offs among those with a gender minority status. On the other hand, including measures that better capture gender diversity may be novel enough that trans respondents would be willing to answer a more burdensome question.

There are limitations to this research. First, this was a small sample of respondents – only 20 – on a college campus in a medium sized, Midwestern city. The data was collected over the summer, when fewer students were on campus. This was a benefit in some ways, as the respondents were more diverse than they might have been if I had recruited during the fall or spring semesters.

The method of cognitive interviews is such that the final survey instrument, including all feedback, may never be tested. That was the case here, as the sample size and time limitations meant fewer rounds of revisions. There was also some feedback I

was unable to address, as it went against the spirit of the research. For example, one respondent had a strong aversion to the use of gender neutral pronouns, and critiqued the word choices every time they came across the pronouns. Occasionally, feedback from one respondent conflicted with feedback from another, and I made executive decisions on which change to make, if any. The overall response from my participants was positive towards this research. Obviously, they are subject to self-selection effects (the recruitment materials clearly stated that it was a survey on gender), and there was also compensation involved. While all of these issues need to be taken into account, the data provided was very helpful in understanding how measures of gender are understood within the survey context.

Given what these data say about the concept of gender and the utility of the GSPS, I have to conclude that the GSPS is not an all-purpose measure. It would be best for research that has an interactional component, such as work addressing prejudice and discrimination, social closure, deviance, and mental health. It would be less useful for research focused on other aspects of gender (beyond masculinity and femininity), or that desire objective measures. As gender is a social concept, an objective measure does not exist, but researchers should use caution when using sex categories in their research. First, we need to acknowledge that sex is not an objective measure, and that sex is NOT the same as gender. More importantly, we need to be thoughtful about the connections we are trying to make between gender and other outcomes. If we are most interested in something that changes based on social interaction, “knowing” what is under someone’s clothes is not very helpful. Further, we need to consider that the data we collect, and the way we collect it, has ramifications beyond our research goals. Binary sex categories are a type of closure against gender minorities, and also reinforce a particular worldview – that humanity can be divided into two categories. As this

research showed, including room for diversity can have positive results, for both gender minorities, and non-minorities.

References

- Bem, Sandra L. 1974. "The Measurement of Psychological Androgyny." *Journal of Consulting and Clinical Psychology*. 42:155-62.
- Butler, Judith. 1988. "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory." *Theatre Journal* 40:519-31.
- Cella, David F. and Samuel W. Perry. 1986. "Reliability and Concurrent Validity of Three Visual-Analogue Mood Scales." *Psychological Reports* 59:827-33.
- Chesebro, James W. and Koji Fuse. 2001. "The Development of the Perceived Masculinity Scale." *Communications Quarterly* 49:203-78.
- Connell, R. W. 1987. *Gender and Power*. Stanford, CA: Stanford University Press.
- Connell, R.W. and James W. Messerschmidt. 2005. "Hegemonic Masculinity: Rethinking the Concept." *Gender and Society*. 19:829-59.
- Couper, Mick P, Roger Tourangeau, Frederick G. Conrad, and Eleanor Singer. 2006. "Evaluating the Effectiveness of Visual Analog Scales: A Web Experiment." *Social Science Computer Review* 24:227-45.
- Davey, Heather M., Alexandra L. Barratt, Phyllis N. Butow, and Jonathan J. Deeks. 2007. "A One-Item Question with a Likert or Visual Analog Scale Adequately Measured Current Anxiety." *Journal of Clinical Epidemiology* 60:356-60.
- Dawson, Samantha J. and Meredith L. Chivers. 2014. "Gender-specificity of Solitary and Dyadic Sexual Desire among Gynephilic and Androphilic Women and Men." *Journal of Sexual Medicine* 11:980-94.
- Dillman, Don A., Smyth, Jolene D., and Christian, Leah M. 2009. *Internet, Mail and Mixed-Mode Surveys: The Tailored Design Method, 3rd ed*. New York: John Wiley and Sons, Inc.
- Factor, Rhonda, and Esther Rothblum. 2008. "Exploring Gender Identity and Community among Three Groups of Transgender Individuals in the United States: MTFs, FTMs, and Genderqueers." *Health Sociology Review* 17:235-53.
- Funke, Frederik, Ulf-Dietrich Reips, and Randall K. Thomas. 2011. "Sliders for the Smart: Type of Rating Scale on the Web Interacts With Educational Level." *Social Science Computer Review* 29:221-31.
- Gallagher, E. John, Polly E. Bijur, Clarke Latimer, and Wendy Silver. 2002. "Reliability and Validity of a Visual Analog Scale for Acute Abdominal Pain in the ED." *American Journal of Emergency Medicine* 20:287-90.

- Goffman, Erving. 1959. *The Presentation of Self in Everyday Life*. New York: Anchor Books.
- Grant, Jaime M., Lisa A. Mottet, Justin Tanis, Jack Harrison, Jody L. Herman, and Mara Keisling. 2011. "Injustice at Every Turn: A Report of the National Transgender Discrimination Survey." Washington, DC: National Center for Transgender Equality and National Gay and Lesbian Task Force.
- Grossman, Arnold H., and Anthony R. D'Augelli. 2006. "Transgender Youth: Invisible and Vulnerable." *Journal of Homosexuality* 51:111-28.
- Groves, Robert M. 2004. *Survey Errors and Survey Costs*. Hoboken, NJ: John Wiley and Sons.
- Hache, Kat. 2014. "What Laverne Cox's 'Time' Magazine Cover Means to Me As a Transgender Woman." *Bustle* web site. Retrieved February 11, 2015 (<http://www.bustle.com/articles/26305-what-laverne-coxs-time-magazine-cover-means-to-me-as-a-transgender-woman>).
- Harris-Perry, Melissa. 2012. "Being Transgender in America." April 15, 2012. You-Tube Web site. Retrieved February 11, 2015 (https://www.youtube.com/watch?v=KJOD_SYWKtl).
- Hines, Melissa, Charles Brook, and Gerard S. Conway. 2004. "Androgen and Psychosexual Development: Core Gender Identity, Sexual Orientation, and Recalled Gender Role Behavior in Women and Men with Congenital Adrenal Hyperplasia (CAH)." *The Journal of Sex Research* 41:75-81.
- Jenkins, Cleo R., and Don A. Dillman. 1997. "Towards a Theory of Self-administered Questionnaire Design." Pp. 165-96 in *Survey Measurement and Process Quality* edited by L. Lyberg, P. Biemer, M. Collins, E. de Leeuw, C. Dippo, N. Schwarz, and D. Trewin. New York: Wiley-Interscience.
- Levant, Ronald, Katherine Richmond, Stephen Cook, A. Tanner House and Maryse Aupont. 2007. "The Femininity Ideology Scale: Factor Structure, Reliability, Convergent and Discriminant Validity, and Social Contextual Variation." *Sex Roles*. 57:373-83.
- Mahalik James R., Benjamin D. Locke, Larry H. Ludlow, Matthew A. Diemer, Ryan P. J. Scott, Michael Gottfried, and Gary Freitas. 2003. "Development of the Conformity to Masculine Norms Inventory." *Psychology of Men and Masculinity* 4:3-25.
- Mahalik, James R., Elizabeth B. Marray, Aimee Coonerty-Femiano, Larry H. Ludlow, Suzanne M. Slattery, and Andrew Smiler. 2005. "Development of the Conformity to Feminine Norms Inventory." *Sex Roles* 52:417-35.

- Myles, Paul S., Sally Troedel, Michael Boquest, and Mark Reeves. 1999. "The Pain Visual Analog Scale: Is it Linear or Nonlinear?" *Anesthesia and Analgesia* 89:1517-20.
- Ridgeway, Cecilia L. and Lynn Smith-Lovin. 1999. "The Gender System and Interaction." *Annual Reviews of Sociology*. 25:191-216.
- Risman, Barbara J. 1998. *Gender Vertigo: American Families in Transition*. New Haven, CT: Yale University Press.
- Russell, Glenda M., and Sharon G. Horne. 2009. "Finding Equilibrium: Mentoring, Sexual Orientation, and Gender Identity." *Professional Psychology: Research and Practice* 40:194-200.
- Schippers, Mimi. 2007. "Recovering the Feminine Other: Masculinity, Femininity, and Gender Hegemony." *Theoretical Sociology* 36:85-102.
- Smyth, Jolene. 2007. "Doing Gender When Home and Work are Blurred: Women, and Sex-Atypical Tasks in Family Farming." PhD dissertation, Washington State University, Pullman, WA.
- Spence, Janet T. 1984. "Gender Identity and Its Implications for the Concepts of Masculinity and Femininity." *Nebraska Symposium on Motivation* 32:59-95.
- Studer, Raphael. 2012. "Does it Matter How Happiness is Measured? Evidence from a Randomized Controlled Experiment." Working paper. Retrieved January 19, 2013 (<http://www.econ.uzh.ch/faculty/studer/vas.pdf>).
- Tourangeau, Roger, Lance J. Rips, and Kenneth Rasinski. 2000. *The Psychology of Survey Response*. Cambridge: Cambridge University Press.
- West, Candace, and Don H. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1:125-51.
- Willis, Gordon B. 1999. "Cognitive Interviews: A 'How To' Guide." Retrieved November 23, 2010 (<http://fog.its.uiowa.edu/~c07b209/interview.pdf>).
- Willis, Gordon B. 2005. *Cognitive Interviewing: A Tool for Improving Questionnaire Design*. Thousand Oaks, CA: Sage.

CHAPTER 4 SEX AND GENDER AT WORK

Introduction

In recent years, there has been a call for greater focus on the quantitative measurement of gender (Brush 2012; Westbrook and Saperstein 2014). Part of the frustration with existing gender scales is that they are not used in “big data,” restricting our understanding of various social outcomes (e.g. health, family, work, etc.) to their relationship with sex categories. These outcomes, which are of interest to a broad range of social scientists and policy makers, may be influenced by more than just the biological characteristic of sex, but we lack practical measures to determine whether this is true for the general population. This research uses a new gender measure, the Gender Self-perception Scale (GSPS), to investigate the relationship between job outcomes and sex and gender.

The GSPS is a visual analog scale (a continuous scale using a line with polar statements at each end; Cella and Perry 1986) with endpoints reflecting a range, in this case, along dimensions of masculinity and femininity. In this research, I use an experimental design to assess two versions of the scale – one that treats masculinity and femininity as opposite ends of a single spectrum, and one that measures them separately. While these measures might not be ideal in terms of gender scholarship, focusing on one aspect of gender instead of multiple facets (Butler 1990), they do take up a minimum amount of space on a survey, increasing the likelihood that the GSPS could be added to surveys that are not otherwise focused on gender. In as much as existing gender measures take up considerable survey space and thus are not practical to implement in many cases, being able to measure gender with a more compact measure like the GSPS would decrease the ghettoization of gender research, allowing

other fields of sociology (e.g. crime, stratification) to include more than sex categories in their research. To understand why there is a need for more gender measures, within and outside of gender scholarship, one has to understand the current status of gender measurement in sociology.

Background

Gender measurement is facing renewed interest among sex and gender scholars. In 2012, Lisa Brush called for a renewed focus on gender measures at the Annual Sociological Association (ASA) meetings. At the 2014 meetings, Westbrook and Saperstein (and their subsequent *Gender and Society* article in 2015) critiqued the lack of development of sex and gender measures in surveys. The problem has been recognized, and research is being done. What is the problem exactly? There is a disconnect between qualitative and quantitative gender research. Qualitative research (most popular amongst gender scholars), provides incredibly rich data that allows for greater detail and exploration of gender than surveys and similar methods can capture. This research is usually on a small scale, but it is burdensome to collect for both the respondent and the researcher. Quantitative research can produce generalizable information, but often uses sex categories as a proxy for gender, since that is what is available in most large scale data sets. While these methods should be complementary, they are focusing on different, but related things: sex and gender. Measures of sex simply do not capture the complexities of gender that impact individual lives.

Contemporary scholars understand that sex and gender are not the same. Sex refers to biological characteristics (Fausto-Sterling 1985, 1997, 2000; Lorber 2010), while gender refers to the social meanings associated with bodies (Connell 2009) – or at least the assumption of the body (Ekins and King 1999). These associations/

assumptions are a major organizing principle of social life (Ridgeway and Smith-Lovin 2006; Schilt and Westbrook 2009). The masculine (male) or feminine (female) traits associated with bodies are part of the structure that gender displays rely on (West and Zimmerman 1987). These displays are then utilized in our interactions with others (Ekins and King 1999). Although often treated as a binary (as masculine/feminine or male/female), people's lived experiences of gender (regardless of sex) are often more nuanced, reflecting a spectrum of identity.

A major institution in most people's lives is their workplace. Jobs impact people's identities, creating meaning in their lives (Beagan et al. 2012). Workplaces are not neutral institutions, immune to the effects of social privilege (Acker 1990, 2006; Connell 2010; Kanter 1977; Kelly et al. 2010; Ridgeway 2009; Schilt 2006); rather, they are shaped by the people within, and the social privileges that come with them. Most occupations are not sex or gender specific (i.e. the work does not require primary or secondary sex characteristics), yet gender is made salient in myriad ways, such as dress code differences (Levi 2007), "feminized" labor (Ridgeway and Correll 2004), and differential standards for similarly situated men and women workers (Biernat 2003). We see gender differences in job outcomes such as autonomy (Adler 1993; Briscoe 2004), and promotion (Reskin and Padavic 2002; Yamagata et al. 1997). We also see gender based discrimination and harassment in the workplace (Benokraitis and Feagin 1995; Grant et al. 2011; Konik and Cortina 2008). The quantitative researchers frame it as gender differences (like the Fortune article), but when you look at the work being done, what they are really studying are sex differences. Female/male is the only information they have from their data, so it is what they use.

There have been many advances over the last 30 years, in which at least half of all women worked outside the home (Women's Bureau 2014), but sex based disparities persist in the workplace. Part of this inequality comes from a lingering sense of the "ideal worker" (Acker 1990) – someone (a man) who is freed from domestic concerns like caregiving, or household labor, and is focused on the job. However, being focused on the job is not enough to close the gender gap, as gendered characteristics are differentially valued. Masculinity is associated with more perceived authority and competence (Schilt 2006), and workers in male-dominated fields who describe themselves with "masculine" traits have more workplace power, pay, and job satisfaction, regardless of sex (Jagacisnki 1987). Masculinity and femininity, as measures of gender separate from sex, are therefore linked to actual job outcomes, yet we lack measures in most data to capture these or other aspects of gender.

Research Questions

In this paper, I examined how sex category, measured as male and female, and gender, measured using the GSPS, were associated with workplace outcomes. In particular, my research questions were: Do sex and gender measures differentially predict job outcomes? Specifically, do sex and gender operate differently when predicting job autonomy, promotion, harassment at work, and discrimination avoidance tactics? And when randomly assigned to one of the two versions, does the GSPS operate the same way?

Data

The data for this study comes from the Work, Life, and Gender (WLG) Survey, a web survey fielded in September and October of 2014. The survey was administered to a convenience sample. Participants were recruited mostly via Facebook; however, a brief

description of the survey and a link were also shared on tumblr (personal), twitter (personal), reddit (r/SampleSize), three listservs (Sociology Department at UNL; the Organizations, Occupations and Work Section of the American Sociological Association [ASA]; and the Sex and Gender Section of ASA), and Craigslist in the 20 largest cities in the US (under Community: Volunteers). I also directly emailed seven LGBT centers in those cities (with one reply), and local connections.

The survey consisted of four sections: work, barriers (harassment/discrimination), sex and gender, and demographics. A total of 737 people clicked the link to access the survey, with 92% of those (678) answering the first question. There were breakoffs through the survey: 565 completed the first barriers question, 552 answered the harassment questions, 506 answered the first sex question (253 completed the GSPS1, 243 completed the GSPS2), and 478 answered the first demographics question (472 answered the last).

Since I was looking at job outcomes, I only included workers in this dataset (n=520). One respondent said they were employed, but said they work zero hours a week (they were dropped from the analyses, n=519). To avoid cross-cultural differences, I limited the analyses here to respondents from the USA (-47). Also, because of the strong relationship between education and work outcomes, I dropped everyone with missing education data (-196). To capture organization characteristics, I appended Bureau of Labor Statistics (BLS) data (described in more detail below), including the percent female in the occupation. Missing cases on this variable were also dropped, since this variable is in all of the final models (-140). Only three of the respondents did not answer the job title question, but there is incomplete information for some occupations. Namely, if a field has less than 50,000 workers, it does not meet the BLS's

publication criteria, and gender (and race) differences are not reported (BLS 2015a). It is not appropriate to guess what these values would be, and the WLG did not include enough job related questions that could be used to differentiate the range of jobs present in the data (from animal trainers, to lawyers, to web developers). For these reasons (and others discussed later), I chose not to use imputed data. These eliminations left me with a total sample of (n=291).

Following Census designations (United States Census 2013), 45% of the respondents were from the midwest, 28% from the south, 15% from the west, and 12% from the northeast (a map of coverage is included in Appendix F). The respondents were 33 years old on average, most likely to be non-Hispanic white (89%), and very highly educated (41% had a master's degree or higher). Table 4.1 shows the descriptive statistics for the final analytic sample.

This research looks at four different job outcomes (job autonomy, promotion, gender based harassment, and discrimination avoidance tactics) that previous literature has found sex differences in. Each outcome is predicted by both sex and gender as the independent variables, before controls are added. Beyond the independent variables, the models vary depending on the previous literature, as covariates are included as controls in the models. This results in a greater variety of variables being used (and described below) than is the norm. Consistent between models are the sex and gender variables, which are the focus of this research.

Dependent Variables: The four outcomes examined here are *job autonomy*, *promotion*, *gender based harassment*, and *discrimination avoidance tactics*. Three questions were used to measure job autonomy using a Likert scale ranging from strongly agree to

| | <u>Mean</u> | <u>Std. Dev.</u> | <u>Min</u> | <u>Max</u> |
|--|-------------|----------------------|------------|------------|
| <i>Dependent Variables (work outcomes)</i> | | | | |
| Autonomy scale | 3.97 | 0.97 | 1 | 5 |
| Promotion | 0.33 | | 0 | 1 |
| Gender harassment at work | 0.15 | | 0 | 1 |
| Discrimination avoidance tactics | 1.07 | 1.35 | 0 | 5 |
| <i>Independent Variables (sex & gender)</i> | | | | |
| Sex (female=1) | 0.75 | | 0 | 1 |
| Gender (GSPS1) | 6.41 | 4.08 | 0 | 15 |
| Gender (GSPS2-masculinity) | 5.95 | 3.88 | 0 | 15 |
| Gender (GSPS2-femininity) | 8.27 | 4.14 | 0 | 15 |
| <i>Control Variables (work characteristics)</i> | | | | |
| Management/Professional | 0.72 | | 0 | 1 |
| Work hours | 38.36 | 13.34 | 2 | 80 |
| Has workplace power | 0.30 | | 0 | 1 |
| Satisfied with job | 0.77 | | 0 | 1 |
| Years on the job | 4.71 | 6.52 | 0.08 | 50 |
| Possibility of future promotion | 0.35 | | 0 | 1 |
| Works full-time | 0.71 | | 0 | 1 |
| Percent female in occupation | 55.10 | 22.03 | 1.80 | 97.80 |
| <i>Control Variables (demographic characteristics)</i> | | | | |
| Age | 32.61 | 9.69 | 18 | 74 |
| White (non-Hispanic) | 0.89 | | 0 | 1 |
| Marital: Never married | 0.32 | | 0 | 1 |
| Marital: Married | 0.61 | | 0 | 1 |
| Marital: Previously married | 0.07 | | 0 | 1 |
| Has children | 0.28 | | 0 | 1 |
| Heterosexual | 0.65 | | 0 | 1 |
| Cisgender | 0.89 | | 0 | 1 |
| Education: Less than 4 year | 0.22 | | 0 | 1 |
| Education: Bachelor's degree | 0.37 | | 0 | 1 |
| Education: Graduate degree | 0.41 | | 0 | 1 |
| Income below \$25,000 a year | 0.16 | | 0 | 1 |
| Experienced harassment before | 0.74 | | 0 | 1 |

strongly disagree: “I have the freedom to arrange my work as I see fit,” “I can decide on my own how to go about doing my work,” and “I have opportunity for independence and freedom in how I do my work.” These questions were adapted from Hackman and

Oldham (1980) and Morgeson et al. (2005) after one of the original questions from Morgeson et al. was found to be repetitive and problematic in pre-testing (perhaps due to the word “autonomy”⁴). Responses for these three items were averaged (range from 1-5) to create the dependent variable ($\alpha=0.87$). Overall, the respondents reported a great deal of autonomy (average of 4).

The *promotion* question was taken from the Employee Retention and Advancement Project (Hamilton 2012), and asked respondents if they had been promoted to a higher position or job title while working at their primary job: yes, no, not applicable. Seventeen percent of respondents answered not applicable to this question. Yes answers were coded as 1, and all other responses were coded as 0. About 33% of the respondents had been promoted at the time of the survey.

The harassment questions were adapted from the National Transgender Discrimination Survey (NTDS; Grant et al. 2011). To reduce respondent burden for those that did not experience it, I first asked *if* they experienced verbal harassment, physical harassment (e.g. being pushed or shoved), and physical assault (e.g. being punched or kicked), as well as being threatened with physical harm (not originally asked in the NTDS, but came up in pretesting). These questions were presented together on a single screen. If they said yes to any one of these, they were asked if that experience was about gender. The response options were “yes”, “no”, and “yes, and for other reasons.”

⁴ Morgenson et al. (2005) used the question “I have significant autonomy in determining how to do my job.” In pre-testing, several respondents commented that this and the second question (“I can decide on my own how to go about doing my work”) were the same. Hackman and Oldham (1980) defined autonomy as “the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedure to be used in carrying it out” (pg. 258). I chose to use the question “I have the freedom to arrange my work as I see fit” as an alternative to Morgenson et al.’s (2005) question.

For experiences related to gender, they were asked how often they experienced it (rarely, sometimes, frequently), where it occurred (open-ended) and when it occurred (from within the last month to over 5 years ago). The open-ended data for where it occurred were hand coded into a dichotomous variable, where 1=they had *experienced gender based harassment at work* (0-they had not experienced gender based harassment at work). This variable showed that almost 17% of the respondents said they had experienced one (or more) of the behaviors because of gender, and also at work.

Five questions were adapted from the NTSD (Grant et al. 2011) to measure how many *tactics were used to avoid discrimination at work*. The first four questions asked about not seeking a promotion or raise, changing jobs, staying in a job they'd prefer to leave and hiding their personal life at work (with yes or no response options). The last question asked if they had done anything else to avoid discrimination or harassment at work, and gave them room to write in what that was. These were all yes/no questions, and yes (=1) answers were summed, so the final variable indicated how many actions someone has taken (up to 5) to avoid discrimination at work⁵. Forty-seven percent of the respondents had not used any tactics, while 3% had used five.

Independent Variables: The sex question used for these analyses is from a question on survey behavior: "Which of the following do you do when you are given a survey that asks: Are you Male or Female?" The response options were answer male, answer female, leave the question blank and go on to the next question, leave the question blank and stop filling out the survey, or other (with room to elaborate). This question

⁵ Analyses were completed without the "other" category (range 0-4), and the results were very similar, and did not change the overall findings.

provided information that was comparable to many other surveys that only ask about sex. This was an unconventional way to measure this, but aligned with the question used in most research. The respondents were also asked what their sex assigned at birth was (76% female). Fewer than 3% of the respondents to the WLG survey showed a change from sex assigned to their survey behavior, but an additional 3.8% said they would not answer male or female on the survey. These respondents were dropped from the analyses (via listwise deletion), as they would be without the additional questions.

Respondents used visual analog scales to provide gender ratings. They were asked to rate themselves, how they think others view them, their spouse/partner, society's ideal woman and society's ideal man. Respondents were randomly assigned to provide these ratings using one of two visual analog scales in which the endpoints varied. In the continuous version (GSPS1, in Fig. 4.1), respondents used single scales that ranged from "completely feminine" to "completely masculine." In the separate version (GSPS2), respondents used two scales, one ranging from "not at all masculine" to "completely masculine", and scrolled down to the second set, where the endpoints were "not at all feminine" to "completely feminine" (shown side by side in Fig. 4.2). The respondents did not see any number labels, but each were coded from 0-15 (from left to right). Only the first line of each (yourself) was included in these analyses, providing a single number from 0-15. Less than 4% of respondents did not answer the first line of their respective scales.

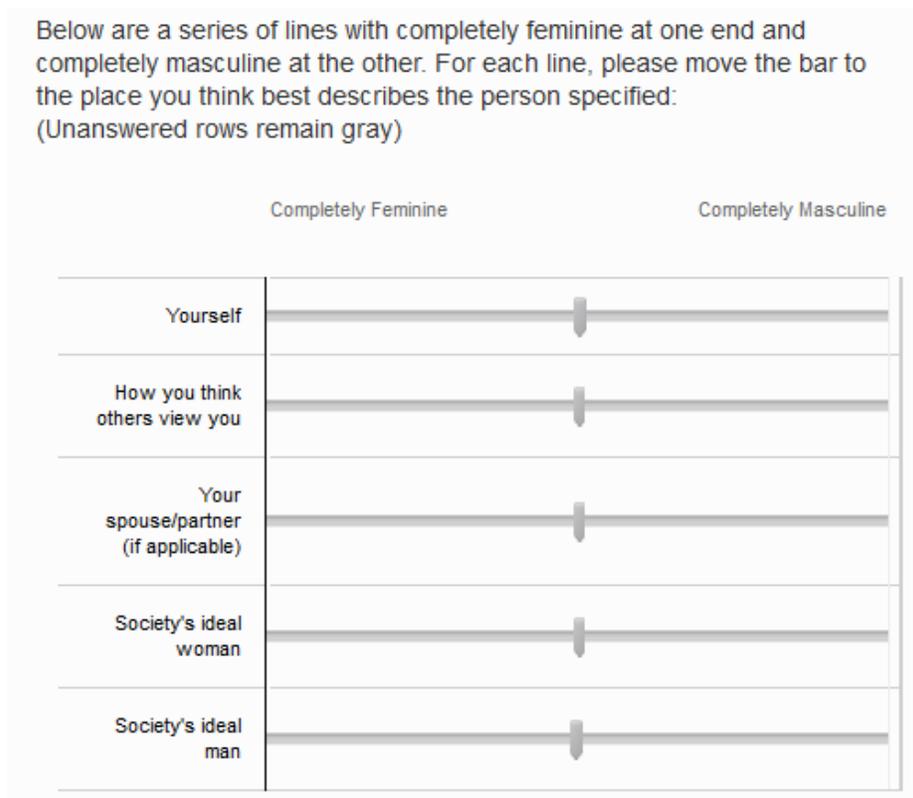


Figure 4.1: GSPS1 in the Work, Life, and Gender Survey

Control Variables (Work Outcomes): The first two variables, occupation type and *percent female* in the occupation, were created using responses to open-ended questions asking for job title and industry. The open-ended answers were coded using the Bureau of Labor Statistics (BLS) Standard Occupational Classification (SOC) system. The resulting six digit number groups workers by broad occupation, plus major and minor groups (BLS 2015b). Schieman and Plickart (2008) used these data to create five categories of occupation (managerial and professional specialty; technical, sales, and administrative support; service; precision production, craft, and repair; and operators or laborers). In these data, the management and professional occupational groupings were the most common among the WLG respondents (72%), followed by the technical,

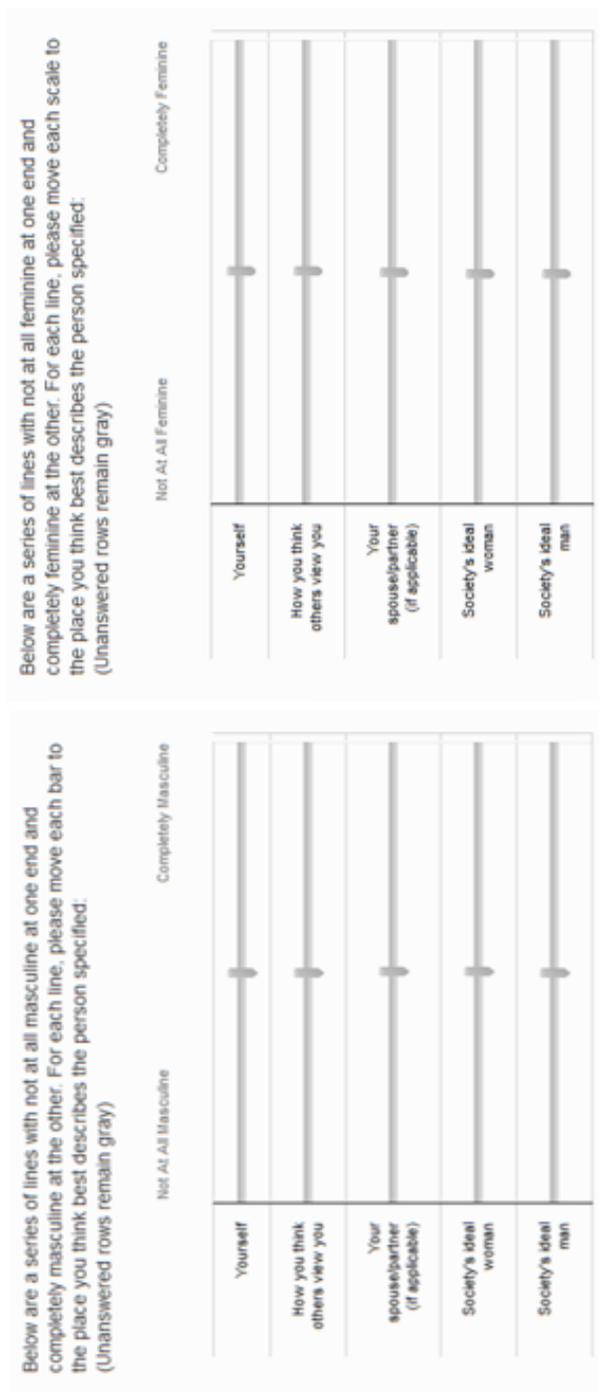


Figure 4.2: GSPS2 in the Work, Life, and Gender Survey

*The respondents had to scroll down to see both scales, with masculine presented first.

sales, and administrative support (21%). Each of these were coded as a dichotomous variable (=1, all else as 0) and both included in the models. The *percent female* working in occupation, from the Current Population Survey (CPS) Labor Force Statistics (BLS 2015a) data was merged to match the SOC codes. The data reflect employment information from 2013, the most recent available at the time. Not every occupation was represented in the CPS data, and others were incomplete due to the small representation size of the population (missing=14.9%). Those with missing data were dropped from the analyses.

Job satisfaction was asked with the question: “How satisfied or dissatisfied are you with your primary job?” with five-point Likert-type response options (very satisfied to very dissatisfied). Due to the skewed responses (76% reporting satisfied or very satisfied), this variable was recoded into a dichotomous variable, where satisfied and very satisfied were coded as 1 and all other categories were coded as 0.

Respondents were asked if their job included a *possibility for future promotion*. As a yes/no question (with a don't know option), yes answers were coded as 1, no and don't know answers coded as 0.

Workplace power was measured using three questions from Elliott and Smith's (2004) study on race, gender and workplace power: “At your primary job, do you supervise another employee who is directly responsible to you?”, “Do you influence or set the rate of pay received by others?”, and “Do you have the authority to hire or fire others?” Following Elliott and Smith (2004), workers who answered yes to only the first question were coded as supervisors, and those who answered yes to the first question, and yes to *either* pay or hiring/firing were coded as managers. Everyone else was coded as workers (the reference category). This was then coded as a dichotomous variable

(*workplace power*), where individuals with supervisory or managerial powers were coded as 1 and all others were coded as 0.

The number of *work hours* was measured with the question “During the average week, how many hours do you usually work? (NOT including the time you travel to and from work).” The range for this variable was 0-80. Respondents were also asked how long they worked at their primary job (in months or years, as appropriate). These answers were transformed into *years on the job* $((\text{years} * 12 + \text{months}) / 12)$. The answers ranged from 0-50, and aligned with the ages of the respondents.

Respondents were asked about the highest level of education they had attained. The response options included no diploma; high school diploma/GED; some college, but no degree; technical/associate/junior college (2yr, LPN); bachelor’s degree (4yr, BA, BS, RN); or graduate degree (master’s, PhD, law, medicine). Thirty-six percent of the respondents in this sample had a four-year degree, with an additional 41% having a graduate or professional degree. Due to this skewed distribution, the lower education levels were collapsed into one category representing education less than a four-year degree. This category and the higher categories of *bachelor’s* and *more than a bachelor’s* were entered as dichotomous variables in the analyses with bachelor’s being the reference category.

Control Variables (Demographic Characteristics): As mentioned previously, the *age* variable was created by taking the difference between the survey year (2014) and each respondent’s birth year. Race was based on two questions, ethnicity and a check-all that apply list of racial categories. Given the small proportion of minority respondents (9.87%), I chose to compare only *non-Hispanic whites* to others (i.e., white vs. nonwhite). Current marital status was measured with a nominal question with seven

response options (married; in a civil union/domestic partnership; not married, but living with a partner; divorced; widowed; separated; never married), plus an “other: ____” choice. Eight “other” responses were collapsed into the seven categories (e.g. engaged/single/serious relationship=never married). These response options were collapsed into *never married*, *married* (and cohabiting, the reference group), and *previously married*, and included in the models as dichotomous variables. *Having children under the age of 19* in the home was constructed from four items, one of which asked if they have children and the others asking them to report the number of children they have in each of three age groups (5 and under, 6-12, and 13-18). If they said they had children (the feeder question), and entered a value into any of the age categories, they were coded as 1. All else were coded as 0, including the 5% that had children, but answered zero for each age category. Household income was measured with an ordinal question with 12 response options (ranging from under \$5,000 to \$100,000 or above). From this, an indicator variable for having a low-income job was created by assigning a value of 1 to anyone falling in the five categories under \$25,000 and a zero to those reporting making more than \$25,000.

Sexual orientation was measured with a direct question: “What is your sexual orientation?” Respondents were given six nominal response options (asexual, bisexual, heterosexual/straight, homosexual/gay/lesbian, pansexual, or queer), plus an “other: ____” choice. These were collapsed into a dichotomous variable where heterosexual was assigned a value of 1 (65%) and all others were assigned a value of zero. A cisgender variable was created from four survey items. The first asked about sex assigned at birth, on their original birth certificate. The second question asked whether they still identify with their sex assigned at birth. The third question was a check-all that apply question: “Which of the following best describes your current gender identity?” If the respondent

reported they still identified with their sex assigned at birth, only selected either female/woman or male/man⁶ as their current gender identity, and that selection “matched” their sex assigned at birth, they were assigned a 1 on the cisgender variable. Otherwise they were assigned a zero. The last question was open-ended: “How would **you** describe your gender identity?” (bold in the original). These answers were checked against the cisgender coding to make sure their self-described identity did not conflict with the coding. There were a broad range of open-ended answers, and investigator discretion was used to determine conflict. Question two (identification with sex at birth) was an issue for some respondents (e.g. answering “sometimes” to question two, but asking “why are there more than two?” for current gender identity). It is unclear whether this was due to measurement error or the proximity of the radio buttons. The majority of the issues were coded as not cisgender due to variability in answers (e.g. multiple gender identities selected, transpersons currently identifying as cis post-operatively, none of the above answers, etc.).

Analytic Plan

After restricting data to those in the USA with complete employment (full-time, part-time, student, etc.), education, and occupation data, missing data on the variables of interest ranged from 0-2.75%. The largest source of missing data had come from the percent female working in an occupation (14.87%). With these limitations, sex had the most

⁶ These options (which were included with intersex, transgender: female to male (FTM), transgender: male to female (MTF), genderqueer, and none of the above) were previously used in the National Transgender Discrimination Survey (Grant et al. 2011). They used the sex assigned at birth question and male/man and female/woman to code respondents as trans (as I did here). I also included a question (which was on the same screen) that asked “How would **you** describe your gender identity?” (bold in the original). This gave respondents an opportunity to communicate their identity however they wish, while also providing me with the data to code.

missing cases (2.75%), followed by income (2.06%) (a tiny fraction, according to Cohen et al. 2003).

That is not to say the missing values do not have an impact. To determine their impact, I completed multiple imputations (20) using the `ice` command in STATA. Besides running models with complete data, I also individually included an indicator for imputations for each variable in a set of models. Comparing the models that were limited to the complete data (effectively listwise deletion), and the models with imputed data, there was little difference – with one notable exception: there was a change in the impact of sex in several models. Although the imputed proportions for sex were less than a half percent different from the complete cases, the imputed models produced coefficients for sex that were quite different than in the unimputed models – sometimes more than twice as large, or more than twice as small. Beyond this concern, I found that (when using the imputation indicators) the imputed values for age were significantly related to one of the outcomes. There were also issues with a key control variable in the work related literature: the percent female in occupations (as discussed earlier). All of these factors led me to choose list-wise deletion for these analyses.

Although the two experimental versions of the GSPS scales were randomly distributed to respondents by the Qualtrics software, there were still some differences between the two groups. T-tests by scale type on the variables of interest, showed three variables that differed in meaningful ways: type of job (management/professional), percent female in occupation, and marital status (Table H.1 in Appendix H). Workers in the GSPS1 sample were more likely to be in management or professional fields ($t=-1.80$, $p<0.10$), and were more likely to be married ($t=-1.91$, $p<0.10$) than those who received

the GSPS2. The GSPS2 respondents were more likely to be in feminized fields than their GSPS1 counterparts ($t=2.06$, $p<0.05$).

For each outcome of interest, I used regression using the appropriate link function. I use ordinary least squares regression to predict autonomy⁷. Two of the four outcomes were dichotomous, and I used logistic regression to predict these (promotion, and experiencing gender harassment at work). The last outcome was a count variable of the number tactics used to avoid discrimination at work. I used negative binomial regression for these models due to the structure of the data and over-dispersion (when the conditional variance is greater than the conditional mean; Cohen et al. 2003). All models were run for males and females, with the exception of gender based harassment at work, which too few men (2) reported experiencing.

The models for each outcome are shown in the same order, with the sex and/or gender variables alone, and then with controls. Since the focus of this chapter is the GSPS, I do not discuss the controls in the results section. Each model includes the available R² statistic for each model, and the overall fit statistic. I also report marginal findings ($p<0.10$), as the sample sizes are relatively small.

Job Outcomes

Autonomy

Autonomy is important for everyone. It is related to employees feeling that they have a personal responsibility for work productivity (Hackman and Oldham 1976; Morgenson,

⁷ The autonomy outcome violates the OLS assumption of normality of the residuals. Various transformations were tested, but the relationships between sex and the GSPS scales and autonomy did not change.

Delaney-Klinger, and Hemingway 2005). The more autonomy one has, the more they feel that they personally make a difference. But workplace autonomy is gendered. Adler (1993) states that women have lower job autonomy than men, which is not meant to imply that women take less responsibility for their work. Autonomy is related to workplace power and authority (Adler 1993; Briscoe 2004; Schieman and Plickart 2008; Smith 2002), which may be a trade-off for greater work flexibility (Briscoe 2004). Considering the continued expectation for women to have responsibility for carework (Douglas and Michaels 2004; Glass 2000; Reskin and Padavic 2002), and the social closure processes that exclude women and minorities from jobs with greater autonomy (Tomaskovic-Devey 1993), the gender gap in job autonomy (Adler 1993) is not surprising.

The previous research on autonomy has focused on a variety of work related characteristics, including establishment features (e.g. union membership and size) and administrative performance reviews. It was not practical to ask respondents about organizational/review characteristics in the WLG, so controls in these analyses are at the individual level. The type of job one does (e.g. management, sales, transport) is related to how much autonomy a worker perceives, with workers in management and professional fields reporting the most autonomy (Adler 1993; Morgenson 2005). Those who worked more hours, had more education, more work power (being a supervisor or manager), and greater job satisfaction reported greater autonomy (Briscoe 2004; Morgenson 2005; Schieman and Plickart 2008). Schieman and Plickart (2008) also found that having children in the household was positively related to feeling responsible in the workplace. They found that age was negatively related to autonomy, but mixed results for race. Once they accounted for work conditions, economic security, and trust, blacks reported more personal control than whites, but the opposite was true for

Hispanic and Asian-American workers. Due to the small numbers of these groups in the WLG, I do not examine these differences. I also include marital status and personal income (as low income or not) as controls, following the previous literature (Briscoe 2004; Schieman and Plickart 2008).

Autonomy: Findings

Table 4.2 shows sex predicting autonomy with and without controls for the different samples (everyone, GSPS1, and GSPS2). Contrary to previous research, males and females did not differ in their autonomy at work. Alone, sex was not a significant predictor of autonomy, either for the whole population, or within the GSPS groups. Using the model fit statistics (F-test), I found that that the sex coefficient was not significantly different from zero.

The GSPS1 is introduced in Table 4.3. The first models are the GSPS1 alone (Models 1 and 2), then the GSPS1 and sex (Model 3 and 4), and finally the interaction of sex and the GSPS1 (Model 5 and 6), with each set of focal variables entered alone and then followed by the addition of controls. Gender (as the GSPS1) was not significant when entered alone or with sex in Models 1 through 4. However, the interaction of sex and gender (in Model 5) was significant ($t=2.34$, $p<0.05$), as were the main effects of both sex ($t=-2.29$, $p<0.05$) and gender ($t=-1.71$, $p<0.10$). This interaction is graphed in Figure 3, and explained just over 5% of the variability in autonomy. Previous literature finds that males have more autonomy than females (Adler 1993), but these results indicated the amount of autonomy depended on the gender of both males and females. Within these data, highly feminine males had the highest autonomy, followed by highly masculine females, highly masculine males, and then highly feminine females. This type of variability cannot be captured by sex categories alone. However, the interaction and

main effects of sex and gender lost significance once the control variables were added (in Model 6).

| | Table 4.2: OLS Regression Predicting Autonomy: Sex and Controls Across Samples | | | | | | | | | | | |
|-----------------------------------|--|------------|-----------------|----------------------|------------------|------------|----------------------|------------|------------------|------------|-----------------|------------|
| | Everyone (n=252) | | | GSPS1 Sample (n=127) | | | GSPS2 Sample (n=125) | | | | | |
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| Sex (female) | β -0.22 | SE 0.14 | β 0.09 | SE 0.13 | β -0.20 | SE 0.18 | β 0.03 | SE 0.17 | β -0.20 | SE 0.23 | β 0.16 | SE 0.21 |
| Percent female in occupation | | | | | | | | | | | | |
| Management/Professional | | -0.01 | | 0.00 * | | 0.00 | | 0.00 | | | | -0.01 |
| Tech/Sales/Administrative Support | | 0.46 | | 0.22 * | | 0.13 | | 0.28 | | | | 0.76 |
| Work hours | | -0.08 | | 0.24 | | -0.41 | | 0.33 | | | | 0.30 |
| Education: Less than 4 year | | 0.01 | | 0.00 * | | 0.01 | | 0.01 | | | | 0.02 |
| Education: Graduate degree | | -0.02 | | 0.15 | | 0.04 | | 0.21 | | | | -0.18 |
| Has workplace power | | 0.09 | | 0.13 | | 0.02 | | 0.18 | | | | 0.12 |
| Satisfied with job | | -0.05 | | 0.12 | | 0.22 | | 0.17 | | | | -0.28 |
| Has children | | 0.70 | | 0.13 *** | | 1.04 | | 0.20 *** | | | | 0.53 |
| Age | | 0.12 | | 0.13 | | -0.16 | | 0.19 | | | | 0.31 |
| White (non-Hispanic) | | 0.01 | | 0.01 | | 0.01 | | 0.01 | | | | 0.01 |
| Marital: Previously married | | -0.10 | | 0.18 | | -0.08 | | 0.24 | | | | -0.40 |
| Marital: Never married | | 0.02 | | 0.21 | | 0.21 | | 0.38 | | | | -0.11 |
| Income below \$25,000 a year | | 0.28 | | 0.14 * | | 0.41 | | 0.21 † | | | | 0.28 |
| Intercept | | -0.41 | | 0.17 * | | -0.56 | | 0.24 * | | | | -0.22 |
| R2 | 4.07 | 0.12 *** | 2.64 | 0.46 *** | 4.13 | 0.15 *** | 2.50 | 0.65 *** | 3.97 | 0.20 *** | 2.47 | 0.68 *** |
| Adj R2 | 1.00% | 32.93% | 0.98% | 37.50% | 0.65% | 37.48% | 29.05% | -0.16% | 28.87% | 4.36 | 4.36 | 4.36 |
| F-test | 0.60% | 28.67% | 0.19% | 29.05% | 4.44 *** | 0.8 | 4.44 *** | 0.8 | 4.36 | 4.36 | 4.36 | 4.36 |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.3: OLS Regression Predicting Autonomy: GSPS1 (n=127), Sex, and Controls

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
|-----------------------------------|---------|----------|----------|----------|---------|----------|----------|----------|---------|----------|----------|----------|
| | β | SE | β | SE | β | SE | β | SE | β | SE | β | SE |
| Sex (female) | 0.02 | 0.02 | | | -0.12 | 0.30 | 0.02 | 0.26 | -1.56 | 0.68 * | -0.74 | 0.62 |
| Gender (GSPS1) | | | 0.00 | 0.02 | 0.01 | 0.03 | 0.00 | 0.03 | -0.10 | 0.06 † | -0.06 | 0.05 |
| Sex*Gender | | | | | | | | | 0.16 | 0.07 * | 0.09 | 0.07 |
| Percent female in occupation | | | 0.00 | 0.00 | | | 0.00 | 0.00 | | | 0.00 | 0.00 |
| Management/Professional | | | 0.13 | 0.29 | | | 0.13 | 0.29 | | | 0.06 | 0.29 |
| Tech/Sales/Administrative Support | | | -0.41 | 0.33 | | | -0.41 | 0.33 | | | -0.45 | 0.33 |
| Work hours | | | 0.01 | 0.01 | | | 0.01 | 0.01 | | | 0.01 | 0.01 |
| Education: Less than 4 year | | | 0.04 | 0.21 | | | 0.04 | 0.21 | | | 0.06 | 0.21 |
| Education: Graduate degree | | | 0.02 | 0.18 | | | 0.02 | 0.18 | | | -0.02 | 0.18 |
| Has workplace power | | | 0.22 | 0.17 | | | 0.22 | 0.17 | | | 0.23 | 0.17 |
| Satisfied with job | | | 1.04 | 0.20 *** | | | 1.04 | 0.20 *** | | | 1.03 | 0.20 *** |
| Has children | | | -0.16 | 0.19 | | | -0.16 | 0.19 | | | -0.15 | 0.19 |
| Age | | | 0.01 | 0.01 | | | 0.01 | 0.01 | | | 0.01 | 0.01 |
| White (non-Hispanic) | | | -0.08 | 0.24 | | | -0.07 | 0.24 | | | -0.08 | 0.24 |
| Marital: Previously married | | | 0.21 | 0.38 | | | 0.21 | 0.38 | | | 0.13 | 0.38 |
| Marital: Never married | | | 0.41 | 0.21 * | | | 0.41 | 0.21 † | | | 0.42 | 0.21 * |
| Income below \$25,000 a year | | | -0.56 | 0.24 * | | | -0.56 | 0.24 * | | | -0.59 | 0.24 * |
| Intercept | 3.85 | 0.15 *** | 2.54 | 0.61 *** | 4.00 | 0.40 *** | 2.52 | 0.72 ** | 5.22 | 0.65 *** | 3.15 | 0.86 *** |
| R2 | 0.94% | | 37.50% | | 1.07% | | 37.50% | | 5.27% | | 38.51% | |
| Adj R2 | 0.15% | | 29.05% | | -0.52% | | 28.41% | | 2.96% | | 28.92% | |
| F-test | 1.18 | | 4.44 *** | | 0.67 | | 4.13 *** | | 2.28 † | | 4.02 *** | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

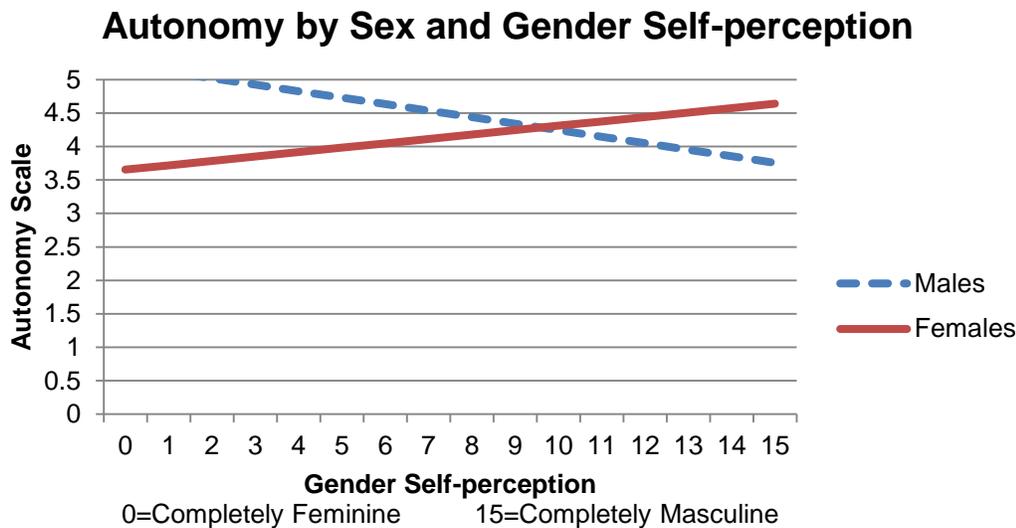


Figure 4.3: Predicted Autonomy by Sex and Gender (GSPS1)
 †Interaction significant $p < 0.05$

Table 4.4 shows the models for the GSPS2 alone predicting autonomy. Neither masculinity nor femininity alone nor the interaction of the two were significant without the inclusion of sex. This changed somewhat when sex was added in Table 4.5. Model 1 introduced sex to the model with the GSPS2 indicators for femininity and masculinity. None of the sex or gender variables were significant. However, when the interactions of sex with the GSPS2 measures were entered in Model 3, there was a significant main effect of femininity ($t = -2.04$, $p < 0.05$), and the interaction of sex with femininity was also significant ($t = 1.69$, $p < 0.10$). This relationship was graphed in Fig. 4.4 below (holding masculinity constant at the appropriate mean for males ($M = 10.47$) and females ($M = 4.64$)). For females, changes in femininity had little effect, but there was a considerable change for males – those who reported higher femininity reported lower autonomy. This was a different story than the one formed by the GSPS1 (in Fig. 4.3), and one that aligns more with the literature on gender in the workplace that says that

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|-----------------------------------|---------|----------|----------|---------|---------|----------|----------|---------|
| | β | SE | β | SE | β | SE | β | SE |
| Gender (GSPS2-masculinity) | 0.00 | 0.04 | 0.02 | 0.04 | 0.03 | 0.05 | 0.02 | 0.05 |
| Gender (GSPS2-femininity) | -0.03 | 0.04 | 0.00 | 0.03 | 0.00 | 0.05 | 0.00 | 0.04 |
| Masculinity*Femininity | | | | | -0.01 | 0.01 | 0.00 | 0.01 |
| Percent female in occupation | | | -0.01 | 0.00 † | | | -0.01 | 0.00 |
| Management/Professional | | | 0.80 | 0.36 * | | | 0.80 | 0.37 * |
| Tech/Sales/Administrative Support | | | 0.33 | 0.39 | | | 0.33 | 0.40 |
| Work hours | | | 0.02 | 0.01 * | | | 0.02 | 0.01 * |
| Education: Less than 4 year | | | -0.18 | 0.22 | | | -0.18 | 0.22 |
| Education: Graduate degree | | | 0.12 | 0.19 | | | 0.12 | 0.19 |
| Has workplace power | | | -0.30 | 0.18 | | | -0.30 | 0.18 |
| Satisfied with job | | | 0.55 | 0.18 ** | | | 0.55 | 0.18 ** |
| Has children | | | 0.29 | 0.19 | | | 0.29 | 0.19 |
| Age | | | 0.01 | 0.01 | | | 0.01 | 0.01 |
| White (non-Hispanic) | | | -0.42 | 0.31 | | | -0.42 | 0.31 |
| Marital: Previously married | | | -0.12 | 0.26 | | | -0.12 | 0.27 |
| Marital: Never married | | | 0.25 | 0.20 | | | 0.25 | 0.20 |
| Income below \$25,000 a year | | | -0.24 | 0.28 | | | -0.23 | 0.28 |
| Intercept | 4.10 | 0.52 *** | 2.46 | 0.83 ** | 3.86 | 0.57 *** | 2.44 | 0.86 ** |
| R2 | 1.59% | | 37.38% | | 2.43% | | 37.38% | |
| Adj R2 | -0.02% | | 28.10% | | 0.01% | | 27.43% | |
| F-test | 0.98 | | 4.03 *** | | 1.01 | | 3.76 *** | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
|-----------------------------------|---------|----------|----------|---------|---------|----------|----------|---------|---------|--------|----------|---------|
| | β | SE | β | SE | β | SE | β | SE | β | SE | β | SE |
| Sex (female) | 0.04 | 0.32 | 0.46 | 0.29 | -0.19 | 1.08 | 0.30 | 0.99 | -0.51 | 1.22 | -0.21 | 1.13 |
| Gender (GSPS2-masculinity) | 0.00 | 0.04 | 0.02 | 0.04 | 0.03 | 0.07 | 0.04 | 0.06 | 0.00 | 0.08 | 0.00 | 0.07 |
| Gender (GSPS2-femininity) | -0.04 | 0.04 | -0.02 | 0.04 | -0.23 | 0.11 * | -0.12 | 0.10 | -0.45 | 0.26 † | -0.36 | 0.23 |
| Masculinity*Femininity | | | | | | | | | 0.03 | 0.03 | 0.03 | 0.03 |
| Sex*Masculinity | | | | | -0.04 | 0.08 | -0.02 | 0.08 | 0.01 | 0.13 | 0.07 | 0.12 |
| Sex*Femininity | | | | | 0.20 | 0.12 † | 0.10 | 0.11 | 0.44 | 0.27 | 0.37 | 0.24 |
| Sex*Masculinity*Femininity | | | | | | | | | -0.03 | 0.03 | -0.04 | 0.03 |
| Percent female in occupation | | | -0.01 | 0.00 † | | | -0.01 | 0.00 † | | | -0.01 | 0.00 † |
| Management/Professional | | | 0.80 | 0.36 * | | | 0.84 | 0.36 * | | | 0.84 | 0.37 * |
| Tech/Sales/Administrative Support | | | 0.35 | 0.39 | | | 0.40 | 0.40 | | | 0.44 | 0.40 |
| Work hours | | | 0.02 | 0.01 * | | | 0.02 | 0.01 * | | | 0.02 | 0.01 † |
| Education: less than 4 year | | | -0.16 | 0.22 | | | -0.18 | 0.22 | | | -0.24 | 0.23 |
| Education: Graduate degree | | | 0.10 | 0.19 | | | 0.12 | 0.19 | | | 0.08 | 0.20 |
| Has workplace power | | | -0.29 | 0.18 | | | -0.30 | 0.18 | | | -0.29 | 0.18 |
| Satisfied with job | | | 0.60 | 0.18 ** | | | 0.60 | 0.18 ** | | | 0.63 | 0.18 ** |
| Has children | | | 0.30 | 0.19 | | | 0.28 | 0.19 | | | 0.29 | 0.19 |
| Age | | | 0.01 | 0.01 | | | 0.01 | 0.01 | | | 0.01 | 0.01 |
| White (non-Hispanic) | | | -0.45 | 0.31 | | | -0.40 | 0.33 | | | -0.37 | 0.33 |
| Marital: Previously married | | | -0.09 | 0.26 | | | -0.11 | 0.26 | | | -0.14 | 0.27 |
| Marital: Never married | | | 0.27 | 0.19 | | | 0.24 | 0.20 | | | 0.26 | 0.20 |
| Income below \$25,000 a year | | | -0.30 | 0.28 | | | -0.28 | 0.28 | | | -0.29 | 0.28 |
| Intercept | 4.09 | 0.53 *** | 2.26 | 0.83 ** | 4.25 | 0.86 *** | 2.37 | 1.00 * | 4.41 | 0.88 | 2.64 | 1.03 * |
| R2 | 1.60% | | 38.81% | | 5.25% | | 39.54% | | 6.01% | | 40.47% | |
| Adj R2 | -0.84% | | 29.09% | | 1.27% | | 28.60% | | 0.38% | | 28.33% | |
| F-test | 0.66 | | 3.99 *** | | 1.32 | | 3.61 *** | | 1.07 | | 3.33 *** | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

gender nonconformity is policed in ways that impact work outcomes (Einarsen and Raknes 1997). And this effect – the impact of femininity in males appeared to be the only thing driving these differences, as the three-way interaction of femininity, masculinity, and sex in Model 5 was not significant (although a main effect of femininity remains ($t=1.71$, $p<0.10$). However, once again, this effect is washed out when the controls are added, and the F-tests show that the GSPS2 coefficients are not significantly different from zero.

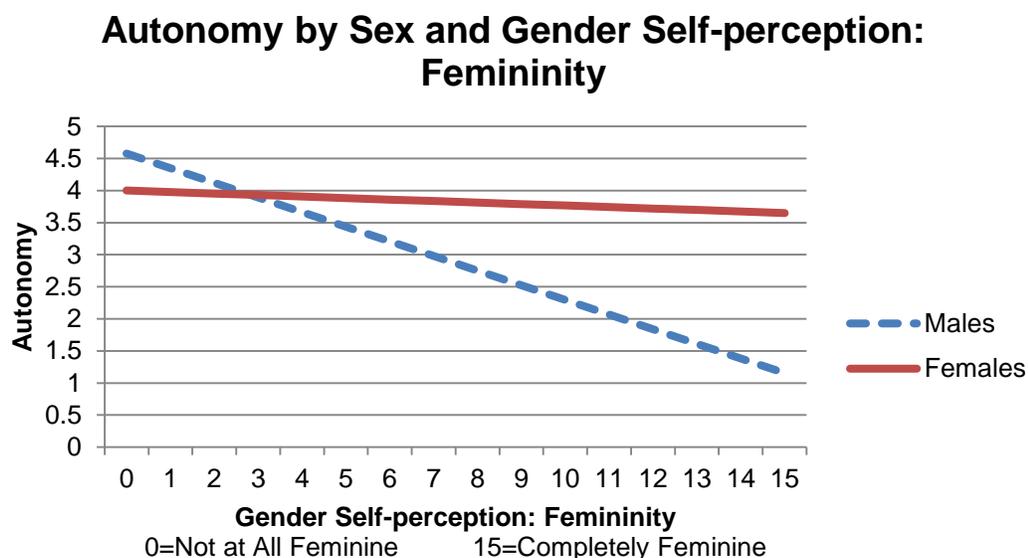


Figure 4.4: Predicted Autonomy by Sex and Gender (GSPS2)
†Interaction significant $p < 0.10$

Autonomy: Discussion

Contrary to previous literature (Adler 1993; Briscoe 2004; Schieman and Plickart 2008), there were not significant sex differences in autonomy in this data set. It was only when the interaction of sex and gender was added to the models that the main effect of sex was significant, and this disappeared with the inclusion of the control variables. The reduced effects of sex after taking these characteristics into account was consistent with previous literature (Adler 1993), which may also explain the lack of results with gender.

An overall pattern of greater autonomy for males over females was not found, but this appeared to vary by gender. The startling relationship between autonomy and gender using the GSPS1 and the interaction of sex and femininity using the GSPS2 indicated a complex relationship between gender and autonomy for males. Together, these measures gave conflicting accounts that might have been due to different conceptualization of gender. Males with higher femininity on the GSPS1 reported more autonomy than males who perceive themselves as more masculine, while males receiving the GSPS2 reported greater autonomy at lower levels of femininity. Given the “limits” of the scales, the GSPS1 did not capture an absence of anything – which means that we do not know whether a respondent’s self-perception value was the distance from or the proximity to an end-point. It is possible, given both scales, that a male might rate themselves towards the middle or left side of the GSPS1, and also “not at all feminine” on the GSPS2. An additional problem is one of statistical power – there were a third as many males as females in these data, and few males rated themselves close to the feminine end of the GSPS1, but the ones that did may have a more leverage in shifting the slope.

Overall, these analyses implied that males’ autonomy may depend more on their self-perceived femininity than it does for females. The lack of effects after the controls were added and the smaller number of males in the sample means this should be interpreted with caution. That being said, there is a common-sense appeal to this finding, since there is a certain amount of freedom for females who perform in ways that are read as masculine, but the same is not true for males whose gender performance is feminine. If these effects were to hold in a larger sample, there may be self-selection effect for males who challenge conventional gender norms into jobs where they have

more freedom and control over their work. Longitudinal data could provide some insight into these processes, if sex *and* gender measures were collected.

Further research is needed to determine whether these results would be the same in a larger sample of males. It should be noted that 11% of the males in these analyses did not identify as cisgender, and 30% did not identify as heterosexual. This does not say anything about their gender status or self-perception, but greater acceptance of gender nonconformity has been shown within these groups (Rieger and Savin-Williams 2012). I would then assume that these results would not be typical in a general population survey, where we would expect fewer than 30% of the population to be trans or of a minority sexual orientation.

Promotion

Advancement in the work place (via promotion) provides access to greater resources, and a tangible measure of worth and success for workers (Reskin and Padavic 2002). Promotions are not possible for everyone. Workers at the top and bottom of a hierarchical structure may lack upward opportunities (Yamagata et al. 1997), while some work in organizations without advancement opportunities (e.g. self-employed, student workers, isolated specialists). Outside of these examples, we find that processes like the glass ceiling, where women face more obstacles to promotion (relative to men; Baxter and Wright 2000; Yamagata et al. 1997), and the glass escalator, where men face structural advantages in female dominated fields (relative to women; Williams 1992), gender the promotion process. Budig (2002) found that men's advantage in promotion were not limited to female dominated fields (where there is less opportunity for advancement; Okamoto and England 1999), but encompass the world of work.

When it comes to the controls used in these analyses, they can be framed different ways, but the results are the same. Lombardi et al. (2001) describe promotion as a type of economic discrimination, while Yamagata et al. (1997) discuss how the lack of advancement opportunities produce occupational captivity, which is worse in female dominated fields. However it is described, heterosexuals, cisgender people, and those with higher incomes were less likely to experience it (Lombardi et al. 2001), while experiencing discrimination, or changing jobs frequently (Eisenberg 20010; Reskin and Padavic 2002) increase the odds of being “captive.” The type of work one does also impacts the available promotional structure. Lower level occupations tend to have less opportunity to advance within the original occupation, and outside opportunities are also limited (Yamagata et al. 1997). Within these analyses, I use a dichotomous variable for income (under \$25,000 a year=1), and years on the job to account for frequent job change. Previous literature also includes labor status (full-time or part-time) and race in their models to account for barriers and marginalized status that may impact a worker’s ability to advance (Reskin and Padavic 2002).

Promotion: Findings

As promotion was a dichotomous outcome, the logistic regression model findings here were presented in odds ratios, for ease of interpretation. As in the autonomy models, I started with the focal variables, then added controls. Table 4.6 shows the logistic regression models predicting promotion using only sex across the different samples. As before, Model 1 included all respondents who answered the promotion question, Model 2 is the GSPS1 sample, and Model 3 is the GSPS2 respondents. Sex was not significant for any group, and the LR test indicated that there is no effect of the independent variable(s) (in this case, sex) on the dependent variable (promotion).

| | Table 4.6: Logistic Regression Predicting Promotion: Sex and Controls Across Samples | | | | | | | | | | | |
|-----------------------------------|--|---------|-----------|----------|---------------|---------|-----------|---------|---------------|---------|-----------|----------|
| | Everyone (n=219) | | | | GSPS1 (n=107) | | | | GSPS2 (n=112) | | | |
| | Model 1 | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | | |
| OR | SE | OR | SE | OR | SE | OR | SE | OR | SE | OR | SE | |
| Sex (female) | 0.88 | 0.28 | 0.84 | 0.34 | 0.56 | 0.24 | 0.54 | 0.33 | 1.70 | 0.89 | 1.43 | 0.92 |
| Heterosexual | | | 0.38 | 0.15 * | | | 0.16 | 0.11 ** | | | 0.55 | 0.29 |
| Cisgender | | | 7.83 | 6.31 * | | | 31.03 | 42.10 * | | | 3.43 | 3.99 |
| Percent female in occupation | | | 0.99 | 0.01 | | | 0.97 | 0.01 † | | | 0.99 | 0.01 |
| Income below \$25,000 a year | | | 0.91 | 0.57 | | | 3.55 | 3.48 | | | 0.19 | 0.24 |
| Experienced harassment before | | | 1.40 | 0.56 | | | 1.02 | 0.67 | | | 1.52 | 0.85 |
| Years on the job | | | 1.31 | 0.07 *** | | | 1.36 | 0.12 ** | | | 1.27 | 0.08 *** |
| Management/Professional | | | 0.26 | 0.20 † | | | 0.68 | 0.91 | | | 0.10 | 0.12 * |
| Tech/Sales/Administrative Support | | | 0.61 | 0.51 | | | 3.90 | 6.31 | | | 0.26 | 0.31 |
| Possibility of future promotion | | | 2.52 | 0.90 ** | | | 4.61 | 2.63 ** | | | 2.12 | 1.10 |
| Works full-time | | | 2.23 | 1.11 | | | 8.18 | 7.66 * | | | 1.33 | 0.91 |
| White (non-Hispanic) | | | 0.44 | 0.25 | | | 0.22 | 0.18 † | | | 0.76 | 0.72 |
| Intercept | 0.69 | 0.19 | 0.21 | 0.26 | 1.00 | 0.35 | 0.06 | 0.11 | 0.38 | 0.18 * | 0.40 | 0.76 |
| Pseudo R2 | 0.06% | | 25.28% | | 1.26% | | 35.71% | | 0.72% | | 24.06% | |
| LR (chi2) | 0.17 | | 73.71 *** | | 1.81 | | 51.48 *** | | 1.06 | | 35.41 *** | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

I added the GSPS1 to the models in Table 4.7. Gender was not significant in any of the models, although the inclusion of sex to the GSPS1 produced marginal significance for sex ($t=-1.81$, $p<0.10$), but only after the controls were added in Model 4. So after accounting for gender and the controls, females had 85% lower odds of having been promoted compared to males. The pseudo R^2 is not the same as R^2 , but as a proxy, and combined with the LR X^2 test, this model is much improved over Model 3 that had only the focal variables. The inclusion of the interaction of sex and gender in Models 5 and 6 was not significant.

The GSPS2 is modeled in Tables 4.8 and 4.9. The GSPS2 alone and in interaction (Table 4.8) showed no significant relationships with promotion. This pattern continued in Table 4.9, and the LR X^2 test indicated that the GSPS2 variables (with or without the addition of sex) were not significantly different from zero.

Promotion: Discussion

The general lack of significance for sex and gender as a predictor of promotion is heartening in terms of real life opportunities, but a failure in trying to better understand the relationship between sex, gender, and work outcomes.

Discrimination and Harassment

As harassment – unwelcome behavior – is a type of discrimination (U.S. Equal Employment Opportunity Commission [EEOC] n.d.), much of the literature on the subjects lumps them together. In the workplace, harassment is greater in male dominated spaces (Eisenberg 2010), but there is some debate about who is impacted more. Most of the literature has focused on how harassment and discrimination have been used for social closure against women (Berdahl 2007; Eisenberg 2010; Rospenda

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
|-----------------------------------|---------|--------|-----------|---------|---------|------|-----------|----------|---------|------|-----------|----------|
| | OR | SE | OR | SE | OR | SE | OR | SE | OR | SE | OR | SE |
| Sex (female) | 1.03 | 0.05 | | | 0.42 | 0.29 | 0.15 | 0.16 † | 0.38 | 0.62 | 0.35 | 0.94 |
| Gender (GSPS1) | | | 0.99 | 0.07 | 0.96 | 0.07 | 0.84 | 0.10 | 0.95 | 0.13 | 0.89 | 0.19 |
| Sex*Gender | | | | | | | | | 1.01 | 0.17 | 0.91 | 0.24 |
| Heterosexual | | | 0.17 | 0.12 ** | | | | | | | 0.13 | 0.09 ** |
| Cisgender | | | 30.24 | 42.07 * | | | 21.89 | 28.73 * | | | 19.62 | 26.36 * |
| Percent female in occupation | | | 0.97 | 0.01 † | | | 0.97 | 0.01 * | | | 0.97 | 0.01 * |
| Income below \$25,000 a year | | | 3.07 | 2.96 | | | 3.42 | 3.48 | | | 3.35 | 3.43 |
| Experienced harassment before | | | 0.95 | 0.63 | | | 1.02 | 0.68 | | | 0.99 | 0.66 |
| Years on the job | | | 1.35 | 0.12 ** | | | 1.40 | 0.13 *** | | | 1.41 | 0.13 *** |
| Management/Professional | | | 0.68 | 0.88 | | | 0.65 | 0.82 | | | 0.71 | 0.93 |
| Tech/Sales/Administrative Support | | | 3.97 | 6.17 | | | 4.14 | 6.52 | | | 4.22 | 6.68 |
| Possibility of future promotion | | | 4.29 | 2.45 * | | | 4.45 | 2.61 * | | | 4.57 | 2.70 * |
| Works full-time | | | 8.77 | 8.31 * | | | 9.89 | 9.53 * | | | 9.73 | 9.44 * |
| White (non-Hispanic) | | | 0.24 | 0.20 † | | | 0.20 | 0.18 † | | | 0.21 | 0.18 † |
| Intercept | 0.54 | 0.20 † | 0.04 | 0.08 | 1.62 | 1.53 | 0.73 | 1.84 | 1.76 | 2.78 | 0.37 | 1.19 |
| Pseudo R2 | 0.00% | | 34.97% | | 1.47% | | 37.38% | | 1.48% | | 37.46% | |
| LR (chi2) | 0.49 | | 50.42 *** | | 2.12 | | 53.89 *** | | 2.13 | | 54.01 *** | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|-----------------------------------|---------|------|-----------|----------|---------|------|---------|----------|
| | OR | SE | OR | SE | OR | SE | OR | SE |
| Gender (GSPS2-masculinity) | 0.96 | 0.08 | 0.98 | 0.11 | 1.01 | 0.12 | 1.16 | 0.23 |
| Gender (GSPS2-femininity) | 1.00 | 0.08 | 1.03 | 0.10 | 1.04 | 0.10 | 1.18 | 0.19 |
| Masculinity*Femininity | | | | | 0.99 | 0.01 | 0.98 | 0.02 |
| Heterosexual | | | 0.50 | 0.28 | | | 0.49 | 0.27 |
| Cisgender | | | 3.35 | 3.90 | | | 3.27 | 3.90 |
| Percent female in occupation | | | 0.99 | 0.01 | | | 1.00 | 0.01 |
| Income below \$25,000 a year | | | 0.20 | 0.25 | | | 0.23 | 0.28 |
| Experienced harassment before | | | 1.55 | 0.86 | | | 1.52 | 0.85 |
| Years on the job | | | 1.28 | 0.09 *** | | | 1.30 | 0.09 *** |
| Management/Professional | | | 0.09 | 0.11 * | | | 0.09 | 0.11 * |
| Tech/Sales/Administrative Support | | | 0.24 | 0.28 | | | 0.22 | 0.27 |
| Possibility of future promotion | | | 2.12 | 1.10 | | | 1.96 | 1.03 |
| Works full-time | | | 1.36 | 0.92 | | | 1.38 | 0.94 |
| White (non-Hispanic) | | | 0.89 | 0.86 | | | 1.13 | 1.19 |
| Intercept | 0.75 | 0.80 | 0.46 | 1.05 | 0.53 | 0.65 | 0.09 | 0.28 |
| Pseudo R2 | 0.36% | | 24.24% | | 0.62% | | 25.23% | |
| LR (chi2) | 0.52 | | 35.66 *** | | 0.91 | | 37.13 * | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.9: Logistic Regression Predicting Promotion: GSPS2 (n=112), Sex, and Controls

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
|-----------------------------------|---------|------|------------|----------|---------|------|-----------|----------|---------|-------|-----------|----------|
| | OR | SE | OR | SE | OR | SE | OR | SE | OR | SE | OR | SE |
| Sex (female) | 1.88 | 1.34 | 1.06 | 0.94 | 3.54 | 8.41 | 4.64 | 17.76 | 0.57 | 1.49 | 0.07 | 0.29 |
| Gender (GSPS2-masculinity) | 0.96 | 0.08 | 0.98 | 0.11 | 1.04 | 0.16 | 1.14 | 0.30 | 0.92 | 0.16 | 0.89 | 0.25 |
| Gender (GSPS2-femininity) | 0.96 | 0.08 | 1.03 | 0.11 | 0.84 | 0.23 | 0.88 | 0.37 | 0.12 | 0.20 | 0.07 | 0.18 |
| Masculinity*Femininity | | | | | | | | | 1.24 | 0.22 | 1.32 | 0.36 |
| Sex*Masculinity | | | | | 0.90 | 0.17 | 0.82 | 0.24 | 1.22 | 0.34 | 1.45 | 0.64 |
| Sex*Femininity | | | | | 1.13 | 0.33 | 1.15 | 0.52 | 9.11 | 15.72 | 18.35 | 49.20 |
| Sex*Masculinity*Femininity | | | | | | | | | 0.79 | 0.14 | 0.74 | 0.20 |
| Heterosexual | | | 0.51 | 0.28 | | | 0.49 | 0.28 | | | 0.52 | 0.32 |
| Cisgender | | | 3.34 | 3.89 | | | 3.60 | 4.17 | | | 4.81 | 6.24 |
| Percent female in occupation | | | 0.99 | 0.01 | | | 1.00 | 0.01 | | | 0.99 | 0.01 |
| Income below \$25,000 a year | | | 0.20 | 0.25 | | | 0.19 | 0.23 | | | 0.22 | 0.28 |
| Experienced harassment before | | | 1.54 | 0.86 | | | 1.54 | 0.87 | | | 1.58 | 0.93 |
| Years on the job | | | 1.28 | 0.09 *** | | | 1.29 | 0.09 *** | | | 1.30 | 0.10 *** |
| Management/Professional | | | 0.09 | 0.11 * | | | 0.10 | 0.12 † | | | 0.09 | 0.11 † |
| Tech/Sales/Administrative Support | | | 0.24 | 0.29 | | | 0.26 | 0.32 | | | 0.22 | 0.28 |
| Possibility of future promotion | | | 2.13 | 1.11 | | | 2.05 | 1.09 | | | 2.01 | 1.09 |
| Works full-time | | | 1.35 | 0.92 | | | 1.18 | 0.82 | | | 1.29 | 0.93 |
| White (non-Hispanic) | | | 0.87 | 0.87 | | | 0.89 | 0.94 | | | 1.25 | 1.43 |
| Intercept | 0.61 | 0.67 | 0.46 | 1.05 | 0.40 | 0.76 | 0.12 | 0.46 | 0.82 | 1.54 | 0.50 | 1.47 |
| Pseudo R2 | 0.90% | | 24.24% *** | | 1.42% | | 24.89% | | 3.53% | | 26.70% | |
| LR (chi2) | 1.32 | | 35.66 *** | | 2.09 | | 36.62 *** | | 5.19 | | 39.28 *** | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

et al. 2009), but Konik and Cortina (2008) found that men and women were equally likely to face gender harassment, with sexual minorities experiencing more for violating gender norms. Surveys of the transgender population found that workplace discrimination was normative (Lombardi et al. 2001), with as much as 90% of those surveyed taking action to avoid harassment (if not actually experiencing it; Grant et al. 2011).

Sex, gender, and sexuality are commonly cited as correlates of harassment and discrimination. Positive predictors include working in a male dominated organization (Berdahl 2007; Rospenda et al. 2009), having less workplace power, and experiencing harassment in the past (McLaughlin et al. 2012). Rospenda et al. (2009) found sex differences in harassment by age, education, marital status, and race, with women experiencing more harassment. This research also included income, hours per week, having children in the home, and job category as predictors of harassment and discrimination (Berdahl 2007; McLaughlin et al. 2012; Rospenda et al. 2009).

Harassment at Work: Findings

Due to the small number of men (2) who reported gender harassment at work, these models (Table 4.10) were limited to females. As a predictor, the GSPS (either version) was not statistically different from zero – meaning it did nothing to predict gender based harassment at work. None of the gender measures were significantly related to gender harassment at work within this sample.

Harassment: Discussion

The relationship between gender non-conformity and harassment has been found among both gender minority and cisgender populations (Gordon and Meyer 2007; Konik and Cortina 2008; Lombardi et al. 2001), but did not hold up in this sample. Neither the

| | GSPS2 (n=100) | | | | | | | | | | | |
|-----------------------------------|---------------|----------|---------|------|---------|------|---------|--------|---------|--------|---------|--------|
| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
| | OR | SE | OR | SE | OR | SE | OR | SE | OR | SE | OR | SE |
| Gender (GSPS1) | 1.13 | 0.14 | 1.12 | 0.19 | | | | | | | | |
| Gender (GSPS2-masculinity) | | | | | 1.14 | 0.13 | 1.02 | 0.13 | 1.42 | 0.37 | 1.34 | 0.40 |
| Gender (GSPS2-femininity) | | | | | 1.05 | 0.12 | 0.99 | 0.12 | 1.20 | 0.22 | 1.17 | 0.24 |
| Masculinity*Femininity | | | | | | | | | 0.98 | 0.02 | 0.97 | 0.03 |
| Heterosexual | | | 0.29 | 0.24 | | | 0.47 | 0.28 | | | 0.50 | 0.30 |
| Percent female in occupation | | | 0.98 | 0.02 | | | 1.01 | 0.01 | | | 1.01 | 0.01 |
| Has workplace power | | | 0.84 | 0.83 | | | 1.54 | 0.97 | | | 1.68 | 1.08 |
| Age | | | 1.06 | 0.05 | | | 0.98 | 0.04 | | | 0.98 | 0.04 |
| Education: Less than 4 year | | | 0.19 | 0.22 | | | 1.95 | 1.30 | | | 1.77 | 1.19 |
| Education: Graduate degree | | | 0.38 | 0.34 | | | 0.72 | 0.51 | | | 0.71 | 0.52 |
| Marital: Previously married | | | 1.79 | 3.10 | | | 2.21 | 1.97 | | | 2.13 | 1.92 |
| Marital: Never married | | | 0.59 | 0.68 | | | 1.06 | 0.70 | | | 1.28 | 0.88 |
| White (non-Hispanic) | | | 0.77 | 0.83 | | | 3.28 | 3.78 | | | 3.86 | 4.62 |
| Income below \$25,000 a year | | | 4.78 | 5.28 | | | 1.85 | 1.36 | | | 2.05 | 1.55 |
| Has children | | | 0.98 | 0.91 | | | 1.33 | 0.88 | | | 1.23 | 0.82 |
| Management/Professional | | | 0.12 | 0.16 | | | 0.17 | 0.21 | | | 0.20 | 0.25 |
| Tech/Sales/Administrative Support | | | 0.57 | 0.76 | | | 0.08 | 0.10 † | | | 0.09 | 0.12 † |
| Intercept | 0.10 | 0.07 *** | 1.22 | 3.10 | 0.09 | 0.15 | 0.69 | 1.93 | 0.02 | 0.05 † | 0.09 | 0.31 |
| Pseudo R2 | 1.45% | | 20.02% | | 1.64% | | 12.99% | | 2.50% | | 14.03% | |
| LR (chi2) | 1.06 | | 14.63 | | 17.31 | | 13.68 | | 2.63 | | 14.78 | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

GSPS1 nor the GSPS2 were significant in these models. Given the lack of men reporting gender based harassment, sex was the defining characteristic for gender based harassment at work. Harassment is, at its most basic, a way to assert power over others (Uggen and Blackstone 2004). This was evident with the number of respondents in the WLG reporting harassment: within this sample, only 19% reported gender based harassment, but 76% reported experiencing verbal harassment, 37% experienced threats of violence, 34% physical harassment, and 15% said they had been physically assaulted. It may be that gender interacts with particular environments or situations not measured here to increase negative attitudes towards females. Given the overall privilege of this sample, there may be characteristics that acted as protective factors.

Discrimination Avoidance at Work: Findings

The negative binomial regression models predicting the number of discrimination avoidance tactics are shown in Tables 4.11-14. First, a couple of notes on interpretation: For ease of interpretation, the results are shown in incidence rate ratios, which are interpreted similar to odds ratios. The LR test of alpha indicates (if significant) that the data is over-dispersed, and the simpler Poisson model is not appropriate (UCLA 2015).

Table 4.11 shows the number of discrimination avoidance tactics regressed on sex and the controls for each sample. Model 1 showed the entire sample. Here being female was associated with a 1.65 increase in the rate of discrimination avoidance tactics ($z=2.31$, $p<0.05$), or a 65% increase in the number of avoidance tactics compared to males. Looking at the intercept for this model, on average, males reported less than one (0.70) discrimination avoidance tactic, while females reported 2.30 tactics. This explained less than 1% of the variance in discrimination avoidance tactics. The impact of sex was reduced once the controls were added, but was still significant ($z=1.68$, $p<0.10$),

| | Negative Binomial Regression Predicting Number of Discrimination Avoidance Tactics Used: Sex and Controls Across Samples | | | | | | | | | | | |
|-----------------------------------|--|--------------|-------------|---------------|-------------|------------|---------------|------------|-------------|---------------|-------------|--------------|
| | Everyone (n=252) | | | GSPS1 (n=125) | | | GSPS2 (n=127) | | | | | |
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | | | | | | |
| Sex (female) | IRR 1.65 | SE 0.35 * | IRR 1.40 | SE 0.28 † | IRR 1.18 | SE 0.33 | IRR 0.95 | SE 0.26 | IRR 2.39 | SE 0.80 ** | IRR 2.14 | SE 0.68 * |
| Heterosexual | | | 0.62 | 0.11 ** | | | 0.62 | 0.16 † | | | 0.62 | 0.14 * |
| Percent female in occupation | | | 0.74 | 0.14 | | | 0.85 | 0.24 | | | 0.72 | 0.18 |
| Has workplace power | | | 2.19 | 0.47 *** | | | 3.63 | 1.31 *** | | | 1.51 | 0.40 |
| Age | | | 1.02 | 0.01 † | | | 1.03 | 0.02 † | | | 1.02 | 0.01 |
| Education: Less than 4 year | | | 0.93 | 0.21 | | | 0.63 | 0.23 | | | 1.30 | 0.34 |
| Education: Graduate degree | | | 0.87 | 0.17 | | | 1.24 | 0.33 | | | 0.69 | 0.19 |
| Marital: Previously married | | | 1.13 | 0.34 | | | 1.21 | 0.63 | | | 0.92 | 0.33 |
| Marital: Never married | | | 0.84 | 0.17 | | | 0.50 | 0.18 † | | | 1.13 | 0.29 |
| White (non-Hispanic) | | | 0.96 | 0.25 | | | 0.91 | 0.34 | | | 0.93 | 0.32 |
| Income below \$25,000 a year | | | 1.14 | 0.28 | | | 1.29 | 0.55 | | | 1.35 | 0.38 |
| Has children | | | 1.03 | 0.20 | | | 0.46 | 0.14 * | | | 1.50 | 0.36 † |
| Management/Professional | | | 0.45 | 0.13 ** | | | 0.27 | 0.11 ** | | | 0.40 | 0.17 * |
| Tech/Sales/Administrative Support | | | 0.37 | 0.12 ** | | | 0.25 | 0.12 ** | | | 0.29 | 0.13 ** |
| Intercept | 0.70 | 0.13 † | 0.83 | 0.49 | 0.79 | 0.19 | 0.86 | 0.78 | 0.56 | 0.17 † | 0.88 | 0.66 |
| Pseudo R2 | 0.80% | | 5.47% | | 0.11% | | 11.04% | | 1.85% | | 7.86% | |
| LR (chi2) | 5.68 * | | 38.7 *** | | 0.38 | | 36.16 ** | | 7.01 ** | | 29.7 ** | |
| LR test of alpha | 45.25 *** | | 17.21 *** | | 20.29 *** | | 4.69 * | | 21.49 *** | | 3.84 * | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

indicating that the use of tactics was still greater for females than males. The effects in Models 1 and 2 were mostly driven by the GSPS2 subsample (Models 5 and 6), since sex was not significant for the GSPS1 respondents (Models 3 and 4). In the GSPS2 subsample, being female was associated with 139% increase in avoidance tactics compared to males ($z= 2.61, p<0.01$), and this effect remained after controls were added ($z= 2.41, p<0.05$). I do not have any explanation for these differences.

The GSPS was added to sex as predictors of avoidance tactics in the models in Table 12. The GSPS1 was not significant in any of the models, and neither was sex (regardless of controls). These focal variables in Table 12 were not significantly different from zero.

The GSPS2 did significantly predict the number of discrimination avoidance tactics used in Tables 13 and 14. Model 1 in Table 13 shows that each centimeter movement from not at all feminine towards completely feminine was associated with 9% higher rate of avoidance tactics. While significant, the masculinity and femininity measures jointly did not significantly predict the dependent variable. Moreover, the significant effect of femininity disappeared with the addition of the control variables, and the interaction of the two lines lacked significance, as well. The addition of sex in Table 14 eliminated the previous effect of femininity in Model 1. For this subsample, after taking gender into account, being female was associated with a 2.75 higher rate of discrimination avoidance tactics ($z=2.35, p<0.05$). This combination of variables were also significant in predicting the number of discrimination avoidance tactics (LR $X^2=8.76, p<0.05$). The addition of the controls eliminated this effect, and neither sex nor the GSPS2 were significant in the last sets of models.

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
|-----------------------------------|-----------|------|-----------|----------|-----------|------|----------|----------|-----------|------|----------|----------|
| | IRR | SE | IRR | SE | IRR | SE | IRR | SE | IRR | SE | IRR | SE |
| Sex (female) | 0.97 | 0.03 | | | | | | | | | 0.81 | 0.86 |
| Gender (GSPS1) | | | 0.99 | 0.03 | 0.96 | 0.44 | 0.67 | 0.28 | 0.76 | 0.84 | 0.97 | 0.09 |
| Sex*Gender | | | | | 0.97 | 0.05 | 0.96 | 0.05 | 1.03 | 0.12 | 0.98 | 0.11 |
| Heterosexual | | | 0.61 | 0.15 * | | | 0.62 | 0.15 † | | | 0.61 | 0.16 † |
| Percent female in occupation | | | 1.01 | 0.01 | | | 1.01 | 0.01 | | | 1.01 | 0.01 |
| Has workplace power | | | 0.84 | 0.24 | | | 0.83 | 0.23 | | | 0.83 | 0.23 |
| Experienced harassment before | | | 3.84 | 1.42 *** | | | 4.00 | 1.49 *** | | | 3.98 | 1.48 *** |
| Age | | | 1.03 | 0.02 † | | | 1.03 | 0.02 † | | | 1.03 | 0.02 † |
| Education: Less than 4 year | | | 0.68 | 0.25 | | | 0.66 | 0.24 | | | 0.66 | 0.24 |
| Education: Graduate degree | | | 1.23 | 0.33 | | | 1.22 | 0.32 | | | 1.23 | 0.33 |
| Marital: Previously married | | | 1.37 | 0.71 | | | 1.37 | 0.69 | | | 1.40 | 0.73 |
| Marital: Never married | | | 0.54 | 0.19 † | | | 0.53 | 0.19 † | | | 0.52 | 0.19 † |
| White (non-Hispanic) | | | 0.91 | 0.34 | | | 0.91 | 0.34 | | | 0.91 | 0.34 |
| Income below \$25,000 a year | | | 1.18 | 0.49 | | | 1.28 | 0.53 | | | 1.29 | 0.54 |
| Has children | | | 0.48 | 0.15 * | | | 0.48 | 0.15 * | | | 0.48 | 0.15 * |
| Management/Professional | | | 0.26 | 0.11 ** | | | 0.25 | 0.10 ** | | | 0.26 | 0.11 ** |
| Tech/Sales/Administrative Support | | | 0.20 | 0.10 ** | | | 0.20 | 0.10 ** | | | 0.20 | 0.10 ** |
| Intercept | 1.06 | 0.25 | 0.56 | 0.53 | 1.12 | 0.71 | 0.91 | 0.96 | 1.36 | 1.43 | 0.80 | 1.02 |
| Pseudo R2 | 0.21% | | 11.58% | | 0.21% | | 11.85% | | 0.23% | | 11.86% | |
| LR (chi2) | 0.69 | | 37.93 *** | | 0.7 | | 38.83 ** | | 0.76 | | 38.86 ** | |
| LR test of alpha | 21.11 *** | | 3.76 * | | 20.11 *** | | 3.36 * | | 20.07 *** | | 3.39 * | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.13: Negative Binomial Regression Predicting Number of Discrimination Avoidance Tactics Used: GSPS2 (n=127), and Control:

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|-----------------------------------|-----------|--------|---------|---------|-----------|------|---------|---------|
| | IRR | SE | IRR | SE | IRR | SE | IRR | SE |
| Gender (GSPS2-masculinity) | 1.06 | 0.06 | 1.00 | 0.05 | 1.03 | 0.08 | 1.01 | 0.07 |
| Gender (GSPS2-femininity) | 1.09 | 0.05 † | 1.05 | 0.05 | 1.06 | 0.07 | 1.05 | 0.06 |
| Masculinity*Femininity | | | | | 1.00 | 0.01 | 1.00 | 0.01 |
| Heterosexual | | | 0.56 | 0.13 * | | | 0.56 | 0.13 * |
| Percent female in occupation | | | 1.00 | 0.01 | | | 1.00 | 0.01 |
| Has workplace power | | | 0.70 | 0.18 | | | 0.70 | 0.18 |
| Experienced harassment before | | | 1.58 | 0.43 † | | | 1.59 | 0.43 |
| Age | | | 1.02 | 0.01 | | | 1.02 | 0.01 |
| Education: Less than 4 year | | | 1.25 | 0.33 | | | 1.24 | 0.34 |
| Education: Graduate degree | | | 0.71 | 0.19 | | | 0.72 | 0.19 |
| Marital: Previously married | | | 0.90 | 0.33 | | | 0.90 | 0.33 |
| Marital: Never married | | | 1.12 | 0.29 | | | 1.12 | 0.29 |
| White (non-Hispanic) | | | 1.01 | 0.36 | | | 1.01 | 0.36 |
| Income below \$25,000 a year | | | 1.47 | 0.43 | | | 1.47 | 0.43 |
| Has children | | | 1.45 | 0.36 | | | 1.45 | 0.36 |
| Management/Professional | | | 0.38 | 0.17 * | | | 0.38 | 0.17 * |
| Tech/Sales/Administrative Support | | | 0.26 | 0.13 ** | | | 0.26 | 0.13 ** |
| Intercept | 0.40 | 0.29 | 0.89 | 0.91 | 0.51 | 0.42 | 0.85 | 0.95 |
| Pseudo R2 | 0.85% | | 7.22% | | 0.94% | | 7.23% | |
| LR (chi2) | 3.22 | | 27.3 * | | 3.55 | | 27.31 † | |
| LR test of alpha | 24.15 *** | | 4.7 * | | 23.82 *** | | 4.69 * | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4.14: Negative Binomial Regression Predicting Number of Discrimination Avoidance Tactics Used: GSPS2 (n=127), Sex, and Controls

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
|-----------------------------------|-----------|--------|---------|--------|-----------|------|---------|--------|-----------|------|---------|--------|
| | IRR | SE | IRR | SE | IRR | SE | IRR | SE | IRR | SE | IRR | SE |
| Sex (female) | 2.75 | 1.18 * | 1.97 | 0.84 | 1.29 | 2.28 | 4.21 | 7.08 | 0.60 | 1.15 | 1.98 | 3.63 |
| Gender (GSPS2-masculinity) | 1.07 | 0.06 | 1.01 | 0.05 | 1.01 | 0.12 | 1.04 | 0.12 | 1.02 | 0.13 | 1.04 | 0.13 |
| Gender (GSPS2-femininity) | 1.03 | 0.05 | 1.01 | 0.05 | 1.03 | 0.19 | 1.15 | 0.20 | 1.15 | 0.50 | 1.22 | 0.48 |
| Masculinity*Femininity | | | | | | | | | 0.99 | 0.05 | 0.99 | 0.04 |
| Sex*Masculinity | | | | | 1.07 | 0.14 | 0.97 | 0.12 | 1.21 | 0.21 | 1.08 | 0.18 |
| Sex*Femininity | | | | | 1.01 | 0.19 | 0.87 | 0.16 | 0.98 | 0.44 | 0.89 | 0.36 |
| Sex*Masculinity*Femininity | | | | | | | | | 1.00 | 0.05 | 0.99 | 0.04 |
| Heterosexual | | | 0.62 | 0.15 * | | | 0.62 | 0.15 * | | | 0.62 | 0.15 * |
| Percent female in occupation | | | 1.00 | 0.01 | | | 1.00 | 0.01 | | | 1.00 | 0.01 |
| Has workplace power | | | 0.72 | 0.18 | | | 0.72 | 0.18 | | | 0.73 | 0.18 |
| Experienced harassment before | | | 1.51 | 0.41 | | | 1.54 | 0.42 | | | 1.53 | 0.41 |
| Age | | | 1.02 | 0.01 | | | 1.02 | 0.01 | | | 1.02 | 0.01 |
| Education: Less than 4 year | | | 1.30 | 0.34 | | | 1.33 | 0.35 | | | 1.25 | 0.34 |
| Education: Graduate degree | | | 0.70 | 0.19 | | | 0.69 | 0.19 | | | 0.68 | 0.18 |
| Marital: Previously married | | | 0.92 | 0.33 | | | 0.93 | 0.33 | | | 0.92 | 0.33 |
| Marital: Never married | | | 1.14 | 0.29 | | | 1.16 | 0.30 | | | 1.27 | 0.33 |
| White (non-Hispanic) | | | 0.95 | 0.33 | | | 0.89 | 0.32 | | | 0.91 | 0.33 |
| Income below \$25,000 a year | | | 1.36 | 0.39 | | | 1.34 | 0.39 | | | 1.35 | 0.39 |
| Has children | | | 1.47 | 0.36 | | | 1.49 | 0.37 | | | 1.45 | 0.36 |
| Management/Professional | | | 0.41 | 0.18 * | | | 0.39 | 0.17 | | | 0.42 | 0.18 * |
| Tech/Sales/Administrative Support | | | 0.29 | 0.14 * | | | 0.28 | 0.13 † | | | 0.30 | 0.15 * |
| Intercept | 0.25 | 0.19 † | 0.72 | 0.74 | 0.48 | 0.75 | 0.41 | 0.69 | 0.44 | 0.71 | 0.36 | 0.62 |
| Pseudo R2 | 2.31% | | 7.90% | | 2.40% | | 8.06% | | 2.84% | | 8.46% | |
| LR (chi2) | 8.76 * | | 29.87 * | | 9.11 | | 30.46 * | | 10.79 * | | 31.98 † | |
| LR test of alpha | 19.34 *** | | 3.92 * | | 19.03 *** | | 3.84 * | | 16.81 *** | | 3.53 * | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Discrimination Avoidance at Work: Discussion

Sex and femininity were important (within limits) for predicting the number of discrimination avoidance tactics used. Females had a higher rate of tactic usage, even after controls were added, which aligns with previous findings that describe it as social closure against them (Berdahl 2007; Eisenberg 2010; Rospenda et al. 2009). Femininity was only significant without the inclusion of sex and controls, suggesting that the scale is capturing much of what the other variables do. It is important to remember that the question used here – about tactics used to avoid discrimination and harassment – was not limited to gender (although asked within a section of questions related to gender).

General Discussion

Although sex disparities remain in the workforce (Sherman 2015), and there is evidence that characteristics and jobs associated with femininity are rewarded less (Reskin and Roos 1990; Schilt 2006; Yamagata et al. 1997), there was limited evidence of it within the outcomes examined here. There was some evidence that femininity has a negative impact for workers, but only for males. We know that men face sanctions for failing to act in hegemonic masculine ways (Connell 1987; Connell and Messerschmidt 2005), so this result was not surprising. That gender did not matter for females was a little startling, unless we think about socially devalued statuses. In that case, both sex *and* gender are important, but the intersection of the two produces a single, privileged, category – the masculine male. All other “categories” (feminine male, masculine female, feminine female) are tainted by the devalued statuses associated with women. This addresses my first research question – do sex and gender measures differentially predict job outcomes? The answer from these data is yes, for males who challenge hegemonic masculinity. The hierarchy suggested here seems straightforward, but complicates the use of sex categories as proxies for gender.

My second question was whether sex and gender operate differently when predicting job autonomy, promotion, harassment at work, and discrimination avoidance tactics? The short answer is yes, although the lack of effects may be interpreted as no. Where significant effects were found, there was a lack of similarity across sex and the two versions of the gender scale. Only one outcome – discrimination avoidance tactics – had a consistent effect of sex, but it was really driven by differences in the GSPS2 subsample.

The gender scales were inconsistent for predicting the outcomes investigated here. Both versions of the GSPS predicted autonomy, but only when sex was included as an interaction in the models, and not once controls were added. This was the only outcome where both versions of the scale were significant, but their results were not exactly comparable. This addresses my last research question, whether the scales operate in the same way. My conclusion is no, but it is beyond the scope of this data to answer why.

Limitations

The lack of consistency across these outcomes is, at least partially, a function of the sample. The respondents were overwhelmingly female, white, highly educated, and in professional occupations. This combination of features suggests a certain level of social privilege that may effectively cancel out the gender effects found in previous literature. It can operate as leverage against the type of environments where sex and/or gender are used as social closure (Berdahl 2007). We might expect that the overrepresentation of sexual and gender minorities (35% and 11%, respectively, mostly overlapping) would cancel out the privilege, but Grant et al. (2011) found that gender minorities experienced

greater acceptance and support within higher education, if they could access it. The same may be true for occupations.

The sample is a function of the type of data collected, as well as the method. These data come from an opt-in web survey that was intended to reach a larger proportion of gender minorities than a general population sample would achieve. That goal was met, but at the sacrifice of generalizability. The data was also cross-sectional, so I was unable to make any statements about change over time, which would be interesting in examining individual change in gender self-perception and the relationship to work life, or how people select into and out of different jobs.

The discrimination avoidance tactics measure was not actually a measure of discrimination. Instead it captured whether the workers felt the *need* to use tactics, rather than if discrimination actually occurred. It might be better understood as a measure of hostile work environment, but the question provided no time constraint. The tactics may have been used repeatedly at different jobs, or only once in the past. Due to these limitations, this outcome may be thought of as perceived discrimination, or fear of discrimination at work. This is still an outcome of interest that shapes an individual's work life, and may be related to sex and/or gender (as demonstrated by the results shown here).

Conclusion

As a measure of gender, the utility of the GSPS is not clear. It is possible that it may not be appropriate for these types of outcomes, or that masculinity and femininity have weaker associations with these outcomes for privileged respondents. These differences cannot be teased out with the data here. Further research is needed to determine whether the GSPS would be predictive for different groups.

References

- Acker, Joan R. 1990. "Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations." *Gender and Society*. 4:139-58.
- Acker, Joan R. 2006. "Inequality Regimes: Gender, Class, and Race in Organizations." *Gender and Society*. 20: 441-64.
- Adler, Marina A. 1993. "Gender Differences in Job Autonomy: The consequences of Occupational Segregation and Authority Position." *The Sociological Quarterly* 34:449-65.
- Baxter, Janeen, and Erik Olin Wright. 2000. "The Glass Ceiling Hypothesis: A Comparative Study of the United States, Sweden, and Australia." *Gender and Society* 14:275-94.
- Beagan, Brenda L., Lauren De Souza, Caleb Godbout, Laura Hamilton, Janet MacLeod, Emma Paynter, and Ashley Tobin. 2012. "'This is the Biggest Thing You'll Ever Do in Your Life': Exploring the Occupations of Transgendered People." *Journal of Occupational Science* 19:226-40.
- Benokraitis, Nijole V., and Joe Feagin. 1995. *Modern Sexism*. Edgewood Cliffs, NJ: Prentice Hall.
- Berdahl, Jennifer L. 2007. "The Sexual Harassment of Uppity Women." *Journal of Applied Psychology* 92:425-37.
- Biernat, Monica. 2003. "Toward a Broader View of Social Stereotyping." *American Psychologist* 58:1019-27.
- Briscoe, Forrest. 2004. "Job Autonomy vs. Career Flexibility: The Role of Large Bureaucracies in Professional Labor Markets." Working paper No. WPC0017, MIT Workplace Center. Retrieved February 24, 2014 (<http://web.mit.edu/workplacecenter/docs/wpc0017.pdf>).
- Brush, Lisa. 2012. "Gender Scholars, the Next Generation: Where Do We Go From Here?" *Panel* American Sociological Association National Conference. Aug. 19. Denver, CO.
- Budig, Michelle J. 2002. "Male Advantage and the Gender Composition of Jobs: Who Rides the Glass Escalator." *Social Problems* 49:258-77.
- Bureau of Labor Statistics. 2014. "May 2013 National Occupational Employment and Wage Estimates United States." *Occupational Employment Statistics*. Retrieved January 8, 2015 (<http://www.bls.gov/oes/special.requests/oesm13nat.zip>).

- Bureau of Labor Statistics. 2015a. "Labor Force Statistics from the Current Population Survey." Retrieved January 8, 2015 (<http://www.bls.gov/cps/cpsaat11.htm>).
- Bureau of Labor Statistics. 2015b. "Standard Occupational Classification." Retrieved January 20, 2015 (<http://www.bls.gov/soc/>).
- Butler, Judith. 1990. *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.
- Cella, David F. and Samuel W. Perry. 1986. "Reliability and Concurrent Validity of Three Visual-Analogue Mood Scales." *Psychological Reports* 59:827-33.
- Cohen, Jacob, Patricia Cohen, Stephen G. West, and Leona S. Aiken. 2003. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences, 3rd Edition*. New York: Routledge.
- Connell, Catherine. 2010. "Doing, Undoing, or Redoing Gender? Learning from the Workplace Experiences of Transpeople." *Gender and Society*. 24:31-55.
- Connell, R. W. 1987. *Gender and Power*. Stanford, CA: Stanford University Press.
- Einarson, Ståle, and Bjørn Inge Raknes. 1997. "Harassment in the Workplace and the Victimization of Men." *Violence and Victims* 12:247-63.
- Connell, Raewyn. 2009. *Short Introductions: Gender*. 2nd edition. Cambridge, MA: Polity Press.
- Connell, R.W. and James W. Messerschmidt. 2005. "Hegemonic Masculinity: Rethinking the Concept." *Gender and Society*. 19:829-59.
- Douglas, Susan J., and Meredith W. Michaels. 2004. *The Mommy Myth*. New York: Free Press.
- Eisenberg, Susan. 2010. "Marking Gender Boundaries: Porn, Piss, Power Tools." Pp. 417-431 in *Global Perspectives on Gender & Work*. Edited by J. Goodman. Lanham, MD: Rowman and Littlefield.
- Ekins, Richard, and Dave King. 1999. "Towards a Sociology of Transgendered Bodies." *The Sociological Review* 47:580-602.
- Elliott, James R., and Ryan A. Smith. 2004. "Race, Gender, and Workplace Power." *American Sociological Review* 69:365-86.
- Fausto-Sterling, Anne. 1985. *Myths of Gender: Biological Theories about Women and Men*. New York: Basic Books.

- Fausto-Sterling, Anne. 1997. "How to Build a Man" Pp. 127-13 in *Constructing Masculinity*, edited by M. Berger, B. Wallace and S. Watson. New York: Routledge.
- Fausto-Sterling, Anne. 2000. *Sexing the Body: Gender Politics and the Construction of Sexuality*. New York: Basic Books.
- Glass, Jennifer. 2000. "Envisioning the Integration of Family and Work: Toward a Kinder, Gentler Workplace." *Contemporary Sociology*. 29:129-143.
- Gordon, Allegra R. and Ilan H. Meyer. 2007. "Gender Nonconformity as a Target of Prejudice, Discrimination, and Violence Against LGB Individuals." *Journal of LGBT Health Research* 3:55-71.
- Grant, Jaime M., Lisa A. Mottet, Justin Tanis, Jack Harrison, Jody L. Herman, and Mara Keisling. 2011. "Injustice at Every Turn: A Report of the National Transgender Discrimination Survey." Washington, DC: National Center for Transgender Equality and National Gay and Lesbian Task Force.
- Hackman, J. Richard, and Greg R. Oldham. 1976. "Motivation through the Design of Work: Test of a Theory." *Organizational Behavior and Human Performance* 16:250-79.
- Hamilton, Gayle. Employment Retention and Advancement Project, 2000-2007 [United States]. ICPSR33181-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2012-03-30. doi:10.3886/ICPSR33181.v1.
- Jagacinski, Carolyn M. 1987. "Androgyny in a Male-Dominated Field: The Relationship of Sex-Typed Traits to Performance and Satisfaction in Engineering." *Sex Roles* 17:529-47.
- Kanter, Rosabeth Moss. 1977. *Men and Women of the Corporation*. New York: Basic Books.
- Kelly, Erin L., Samantha K. Ammons, Kelly Chermack and Phillys Moen. 2010. "Gendered Challenge, Gendered Response: Confronting the Ideal Worker Norm in a White-Collar Organization." *Gender & Society*. 24:281-303.
- Konik, Julie, and Lilia M. Cortina. 2008 "Policing Gender at Work: Intersections of Harassment Based on Sex and Sexuality." *Social Justice Research* 21:313-37.
- Levi, Jennifer. 2007. "Some Modest Proposals for Challenging Established Dress Code Jurisprudence." *Duke Journal of Gender Law and Policy* 14:243-55.
- Lombardi, Emilia L., Riki Anne Wilchins, Dana Priesing, and Dana Malouf. 2001. "Gender Violence: Transgender Experiences with Violence and Discrimination." *Journal of Homosexuality* 42:89-101.

- Lorber, Judith. 2010. "Believing is Seeing: Biology as Ideology." Pp. 13-26 in R. Weitz's (Ed.) *The Politics of Women's Bodies: Sexuality, Appearance, and Behavior*. New York: Oxford University Press.
- McLaughlin, Heather, Christopher Uggen, and Amy Blackstone. 2012. "Sexual Harassment, Workplace Authority, and the Paradox of Power." *American Sociological Review* 77:625-47.
- Morgeson, Frederick P., Kelly Delaney-Klinger, and Monica A. Hemingway. 2005. "The Importance of Job Autonomy, Cognitive Ability, and Job-Related Skill for Predicting Role Breadth and Job Performance." *Journal of Applied Psychology* 90(2):399-406
- Okamoto, Dina, and Paula England. 1999. "Is there a Supply Side to Occupational Sex Segregation?" *Sociological Perspectives* 42:557-582.
- Reskin, Barbara and Irene Padavic. 2002. *Women and Men at Work*. Thousand Oaks, CA: Pine Forge Press.
- Ridgeway, Cecilia L. 2009. "Framed Before We Know It: How Gender Shapes Social Relations." *Gender and Society*. 23: 145-60.
- Ridgeway, Cecilia and Shelly J. Correll. 2004. "Unpacking the Gender System: A Theoretical Perspective on Gender Beliefs and Social Relations." *Gender and Society*. 18:510-31.
- Ridgeway, Cecilia L., and Lynn Smith-Lovin. 2006. "Gender and interaction." Pp 247-74 in *Handbook of the Sociology of Gender*. Houston, TX: Springer.
- Rieger, Gerulf, and Ritch C. Savin-Williams. 2012. "Gender Nonconformity, Sexual Orientation, and Psychological Well-being." *Archive of Sexual Behavior* 41:611-21.
- Rospenda, Kathleen M., Judith A. Richman, and Candice A. Shannon. 2009. "Prevalence and Mental Health Correlates of Harassment and Discrimination in the Workplace: Results from a National Study." *Journal of Interpersonal Violence* 24:819-43.
- Schieman, Scott, and Gabriele Plickert. 2008. "How Knowledge is Power: Education and the Sense of Control." *Social Forces* 87:153-83.
- Schilt, Kristin. 2006. "Just One of the Guys? How Transmen Make Gender Visible at Work." *Gender and Society* 20:465-90.
- Schilt, Kristin, and Laurel Westbrook. 2009. "Doing Gender, Doing Heteronormativity: 'Gender Normals,' Transgender People and the Social Maintenance of Heterosexuality." *Gender and Society*. 23:440-64.

- Sherman, Erik. 2015. "These 20 Jobs Have the Biggest Gender Pay Gaps." *Fortune*, March 2. Retrieved March 9, 2015 (https://fortune.com/2015/03/02/jobs-biggest-gender-pay-gaps/?utm_content=bufferf1113&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer).
- Smith, Ryan A. 2002. "Race, Gender, and Authority in the Workplace: Theory and Research." *Annual Review of Sociology* 25:509-42.
- Tomaskovic-Devey, Donald. 1993. "The Gender and Race Composition of Jobs and the Male/Female, White/Black Pay Gaps." *Social Forces* 72:45-76.
- UCLA: Statistical Consulting Group. 2015. "Stata Annotated Output: Negative Binomial Regression" Retrieved May 5, 2015 (http://www.ats.ucla.edu/stat/stata/output/stata_nbreg_output.htm).
- Uggen, Christopher, and Amy Blackstone. 2004. "Sexual Harassment as a Gendered Expression of Power" *American Sociological Review* 69:64-92.
- United States Census. 2013. "Geographic Terms and Definitions." *Population Estimates*. Retrieved April 30, 2015 (<https://www.census.gov/popest/about/geo/terms.html>).
- United States Department of Agriculture. 2014. "Rural-Urban Commuting Area Codes." *Economic Research Service*. Retrieved January 8, 2015 (http://www.ers.usda.gov/datafiles/RuralUrban_Commuting_Area_Codes/ruca2010.xlsx).
- United States Equal Employment Opportunity Commission. n.d. "Harassment." Retrieved March 5, 2015 (<http://www.eeoc.gov/laws/types/harassment.cfm>).
- West, Candace, and Don H. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1:125-51.
- Westbrook, Laurel, and Aliya Saperstein. 2014. "New Categories Will Not Solve Old Problems: Rethinking the Measurement of Sex and Gender in Social Surveys" American Sociological Association Annual Meeting. August. San Francisco, CA.
- Westbrook, Laurel, and Aliya Saperstein. 2015. "New Categories Are Not Enough: Rethinking the Measurement of Sex and Gender in Social Surveys." *Gender and Society* 29:534-60.
- Williams, Christine L. 1992. "The Glass Escalator: Hidden Advantages for Men in the 'Female' Professions*" *Social Problems* 39:253-67.
- Women's Bureau, United States Department of Labor. 2104. "Women in the Labor Force." Facts Over Time. Retrieved January 27, 2015 (http://www.dol.gov/wb/stats/facts_over_time.htm).

Yamagata, Hisashi, Kuang S. Yeh, Shelby Stewman, and Hiroko Dodge. 1997. "Sex Segregation and Glass Ceiling: A Comparative Statics Model of Women's Career Opportunities in the Federal Government over a Quarter of a Century." *American Journal of Sociology* 130:566-632.

CHAPTER 5 NOT READY TO TAKE THE TRAINING WHEELS OFF

Discussion

Gender scholarship has generally been focused on qualitative data, with quantitative researchers using what was available to them – often only sex categories – as a proxy for gender. This research investigated a quantitative alternative to the sex category question, a visual analog scale called the Gender Self-perception Scale (GSPS). Across three projects, I addressed my primary research question: can a visual analog scale measure gender in a meaningful way? The short answer is “maybe.” There were many interesting findings in this research, but few definitive answers. In the next sections, I summarize the main points of each of the projects, before discussing some overall issues (and possible solutions), and what this research means in the context of current research.

Chapter 2: Better Than Boxes? Testing an Alternative Scale for Gender Research

In Chapter 2, I used two data sources to compare the GSPS to sex as a predictor of gendered outcomes (warmth and competence), and investigated the predictors of gender self-perception. Overall, sex remained an important predictor of the outcomes, but gender self-perception complemented the sex categories for both samples. The two measures were not interchangeable – they explained different amounts of variance, and in the models predicting gender self-perception, at least 30% of the variance in gender self-perception was unrelated to sex. These results suggested that the GSPS is capturing more than sex differences, but the unexplained variance remains that – unexplained.

This was the first use of the GSPS on these populations – a general population sample, and convenience sample with large percentage of gender and sexual minorities. The samples were very different demographically, but the distinctions still provide information about the scale. The general population sample was considerably older ($M=55$) than the convenience sample ($M=32$), and all from a conservative Midwestern state. Besides being younger, convenience sample included more gender minorities, fewer males, was more educated, and more likely to be employed. The differences may be viewed as problematic for comparison between the two samples, but they also provide an opportunity to assess the GSPS across a range of different types of populations. Overall, this work demonstrated how the GSPS is a complement to sex categories, explaining additional variance for gender related outcomes, and how the results change for different populations.

Chapter 3: Scales and Stereotypes: Cognitive Interviews with the Work, Life, and Gender Survey

The third chapter was cognitive interviews addressing an early version of the Work, Life, and Gender Survey (WLG). The differences in definition of gender, gender identity, and masculinity/femininity by gender minority status may be the result of different attitudes/beliefs about gender, or perhaps is due to the available vocabulary to articulate their response. The trans respondents had a preference for the GSPS2; even when they said it was more difficult, they said it seemed more correct.

After respondents finished the survey, I asked about the survey as a whole. I asked a trans respondent, “Was there anything in here that stood out as problematic to you, or things that you liked?” and they answered:

“Well, uh... I really like the whole, the whole like comparing the one slider versus the two slider thing. I think that is something important that I think is kind of, ignored. When like trans issues come up, because I think it is one of those things where like – it almost feels like pandering to – um, a less...not pandering, but it feels like it is dumbing down the idea a little bit to make it easier for people to digest. I see it as kind of sometimes necessary, but it is one of those things [“The continuous? Or the separate?”] I’m sorry, the continuous one. It almost feels like training wheels for people for dealing with gender variance. I think it is important that they are approached with the idea that it’s uh, that masculinity and femininity are not like, opposing forces. And that they can exist sort of mutually exclusive. I’m sorry, that’s not what I mean. They are not mutually exclusive, that they can sort of exist separate from one another, don’t... um...don’t push against one other.”

This brings up several pertinent issues. First, it validates the need for this type of research, both to address the needs of a gender diverse population, and better understand how people are processing questions related to gender. Second, it supports the measurement of masculinity and femininity as relevant, but needing to be measured in thoughtful ways. This respondent was not rejecting the GSPS1, but telling me it may be useful (as a training for the uninformed), but is not the best option. Third, it proposes that “neutral” practices (like gender measurement on surveys) is educational, and able to impact one’s worldview. Finally, it points out the difficulties in discussing these issues, even for people who are living outside of the male/female binary.

Beyond the differences in gender minority status, this research highlighted a similar cultural understanding of masculinity and femininity that crossed boundaries of sex, class, and age. Only one respondent defined gender identity using the words masculine and feminine. Others talked about performance or the perceptions of others, making connections to roles and bodily displays. While the one does not map perfectly on the other, the similarities of defining gender/gender identity and masculinity/femininity as how others perceive us leads me to conclude that the GSPS would be most useful in research that is focused on social interactions.

Chapter 4: Sex and Gender at Work

The last project included two versions of the GSPS to predict four job related outcomes. These outcomes were chosen for their links to sex differences in previous literature. The big take away from this chapter was the lack of consistency across the analyses, for both sex and the GSPS. Neither sex nor gender differentially predicted the outcomes of interest, and the different versions of the GSPS did not operate in the same manner in these models. Overall, the GSPS1 explained more variance than the GSPS2, but not enough to be comfortable saying one is “better” than the other.

Beyond the research questions for this chapter, there were interesting findings. The finding that sex and gender were not significant for job related outcomes can be understood a number of ways. First, it is encouraging that there were not sex and gender differences in autonomy and promotion. But the data used were from a unique population that likely had lots of privilege outside of their gender. It is potentially disheartening that it takes that much privilege in terms of education and occupation to reduce or eliminate gender differences in such important outcomes.

Overall

This dissertation does not offer definitive answers, but does add to the scholarship of sex and gender in a number of ways. Besides answering the call for more research on the measurement of gender (Brush 2012), it provides insight into gendiversity (the spectrum of gendered behaviors) that is a challenge for survey measurement. Some gender scholars (Brush 2012; Westbrook and Saperstein 2014, 2015) are drawing attention to the quantitative measurement of sex and gender within national forums. There is also research being done within the survey field, with “in house” projects that sometimes get presented at national conferences. While these national outlets are a way

to disseminate information, they are limited in who they reach, and lack general accessibility if never published. This leaves gender scholarship in a kind of limbo – where gender measures are being investigated, but not part of the larger dialogue.

Within this research, one finding kept appearing – males seemed to be influenced more by gendered stereotypes/expectations than females. In Chapter 2, the links between competence and masculinity were stronger for males than females. In Chapter 4, the femininity for males was driving the few effects found. The smaller number of males in the sample means that this should be interpreted with caution, but failing to capture this information means ignoring important variability. This work implies that male behaviors continue to be policed, more so than females. In our efforts to achieve greater parity for males and females, I think this gets lost within the evidence of female disadvantage, particularly when only measuring sex categories.

Limitations

In general, there was a lack of consistency both within and across the quantitative projects. This may be due to the smaller sample sizes in the WLG, differences in the respondents to the different surveys, or the salience of the dependent variables. The number of respondents to the WLG (particularly after using listwise deletion) contributed to power problems in some of the models. That is, there were not enough cases in all categories to accurately test the null hypothesis (that there is no difference). It is possible that with a larger sample, we would find the expected effects in chapters two and four.

The WLG respondents were different from national benchmarks in many ways. I called them a high-minority sample due to the high percentage of gender and sexual

minorities in the sample, but they were also very highly educated, and employed in management or professional fields. These characteristics are due (at least in part) to the recruitment strategies I used, but I met one of the goals of this data collection using these methods: overrepresentation of sexual and gender minorities.

The salience of a topic influences respondents' motivation to answer questions and complete surveys (Sudman and Bradburn 1982). If respondents are uninterested, or fatigued, they provide lower quality data. The more similar something is to one's own experience, the more positively they view it (Biernat, Vescio, and Green 1996), which may increase attention and motivation. For example, if respondents were not interested in the job questions, or if they had trouble with the GSPS, they may not have provided thoughtful answers, impacting the analyses here. While tailored design and targeted recruitment can help offset these effects (Dillman, Smyth, and Christian 2014), there are limitations (such as an omnibus survey, or convenience sampling).

Another concern with the use of the GSPS is social desirability. These data showed that there was variability in gender self-perception for both females and males, but it is possible that greater variability is hidden beneath a desire to be seen a certain way (social desirability). In chapter two, I included graphs of the responses to the GSPS in both the NASIS and the WLG. In the NASIS, there was almost a plateau for females below a value of five on the GSPS, while there was a definite spike for males at around fourteen. Compared to women, men face greater sanctions for challenging gender norms (Connell 1987; Connell and Messerschmidt 2005), which may impact the way people respond to the scale.

A trade-off I made was not comparing the GSPS to previously validated scales. I included gender related scales (e.g. stereotype content model; Cuddy et al. 2008) and

outcomes in the research, but did not use any of the larger indexes that are intended to capture masculinity and femininity (e.g. the Conformity to Feminine Norms [Mahalik et al. 2005] and the Conformity to Masculine Norms [Mahalik et al. 2003] Inventories). My primary reason for not using them is the same as my reason for this research: they are too long. The burden on the respondent is overwhelming, particularly if there are other topics of interest within the survey, or the form is hard to follow (such as with matrices; Couper 2008; Kaczmirek 2011). Future work should compare validated scales to the GSPS, perhaps via a split half method, reducing respondent burden.

Much of the data used for this research came from local respondents: Nebraskans for the NASIS, and mostly Lincolniters for the interviews. Almost half (43%) of the WLG respondents were from the Midwest. I have no reason to believe that the same research in a different region would get the same results. Nebraskans tend to be socially conservative (Cohen 2012), so I would expect greater diversity on the coasts or in larger cities.

Conclusion

This dissertation started with a quote by Chimamanda Ngozi Adichie: “The problem with gender is that it prescribes how we should be, rather than recognizing how we are” (2012). It was my hope that the GSPS would provide greater recognition of how we are, but I am not sure that is the case. However, if we think about gender as a performance, and something that is compared to others, the GSPS may be doing its job, particularly for the purposes of inequality research. Future work should compare the GSPS to other measures of gender, and test it within different outcomes.

Representation and recognition are important components of sociological scholarship, as well as survey research, and policy making. As researchers, we want to make sure we are representing people accurately, while protecting them from harm (ASA 1995). As part of our social responsibility, we aim to contribute to the public good. The question remains, what are the consequences for science, for interventions, and for policy if we continue to ignore the real-life variation in gender in our studies and instead rely on either an oversimplified and essentialist measure or on very specialized qualitative studies?

References

- Adichie, Chimamanda Ngozi. 2012. "We Should All Be Feminists." TEDxEuston Web site. Retrieved January 27, 2015 (<http://tedxeuston.blogspot.co.uk/2013/04/chimamanda-adichie-at-tedxeuston-2012.html>).
- American Sociological Association. 1999. "Code of Ethics and Policies and Procedures of the ASA Committee on Professional Ethics." Retrieved July 24, 2015 (<http://www.asanet.org/images/asa/docs/pdf/CodeofEthics.pdf>).
- Biernat, Monica, Theresa K. Vescio, and Michelle L. Green. 1996. "Selective Self-Stereotyping." *Journal of Personality and Social Psychology* 71:1194-1209.
- Cohen, Micah. 2012. "Nebraska G.O.P. Draws a Tougher Map for Obama." FiveThirtyEight Blog, September 23, 2012. *The New York Times*. Retrieved September 28, 2014 (<http://fivethirtyeight.blogs.nytimes.com/2012/09/23/nebraska-g-o-p-draws-a-tougher-map-for-obama/>).
- Couper, Mick P. 2008. *Designing Effective Web Surveys*. New York: Cambridge University Press.
- Cuddy, Amy J. C., Susan T. Fiske, and Peter Glick. 2007. "The BIAS Map: Behaviors from Intergroup Affect and Stereotypes." *Journal of Personality and Social Psychology* 92:631-48.
- Dillman, Don A., Jolene D. Smyth, and Leah Melani Christian. 2014. *Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method*. Hoboken, NJ: Wiley & Sons, Inc.
- Kaczmirek, Lars. 2011. "Attention and Usability in Internet Surveys: Effects of Visual Feedback in Grid Questions," Pp. 191-214 in *Social and Behavioral Research and the Internet: Advances in Applied Methods and Research Strategies*, edited by M. Das, P. Ester, & L. Kaczmirek. New York: Routledge.
- Mahalik James R., Benjamin D. Locke, Larry H. Ludlow, Matthew A. Diemer, Ryan P. J. Scott, Michael Gottfried, and Gary Freitas. 2003. "Development of the Conformity to Masculine Norms Inventory." *Psychology of Men and Masculinity* 4:3-25.
- Mahalik, James R., Elizabeth B. Morry, Aimee Coonerty-Femiano, Larry H. Ludlow, Suzanne M. Slattery, and Andrew Smiler. 2005. "Development of the Conformity to Feminine Norms Inventory." *Sex Roles* 52:417-35.
- Sudman, Seymour, and Norman M. Bradburn. 1982. *Asking Questions*. San Francisco, CA: Josey-Bass Inc.

Westbrook, Laurel, and Aliya Saperstein. 2014. "New Categories Will Not Solve Old Problems: Rethinking the Measurement of Sex and Gender in Social Surveys" American Sociological Association Annual Meeting. August. San Francisco, CA.

Westbrook, Laurel, and Aliya Saperstein. 2015. "New Categories Are Not Enough: Rethinking the Measurement of Sex and Gender in Social Surveys." *Gender and Society* 29:534-60.

Appendices

Appendix A: 2011 NASIS Questionnaire

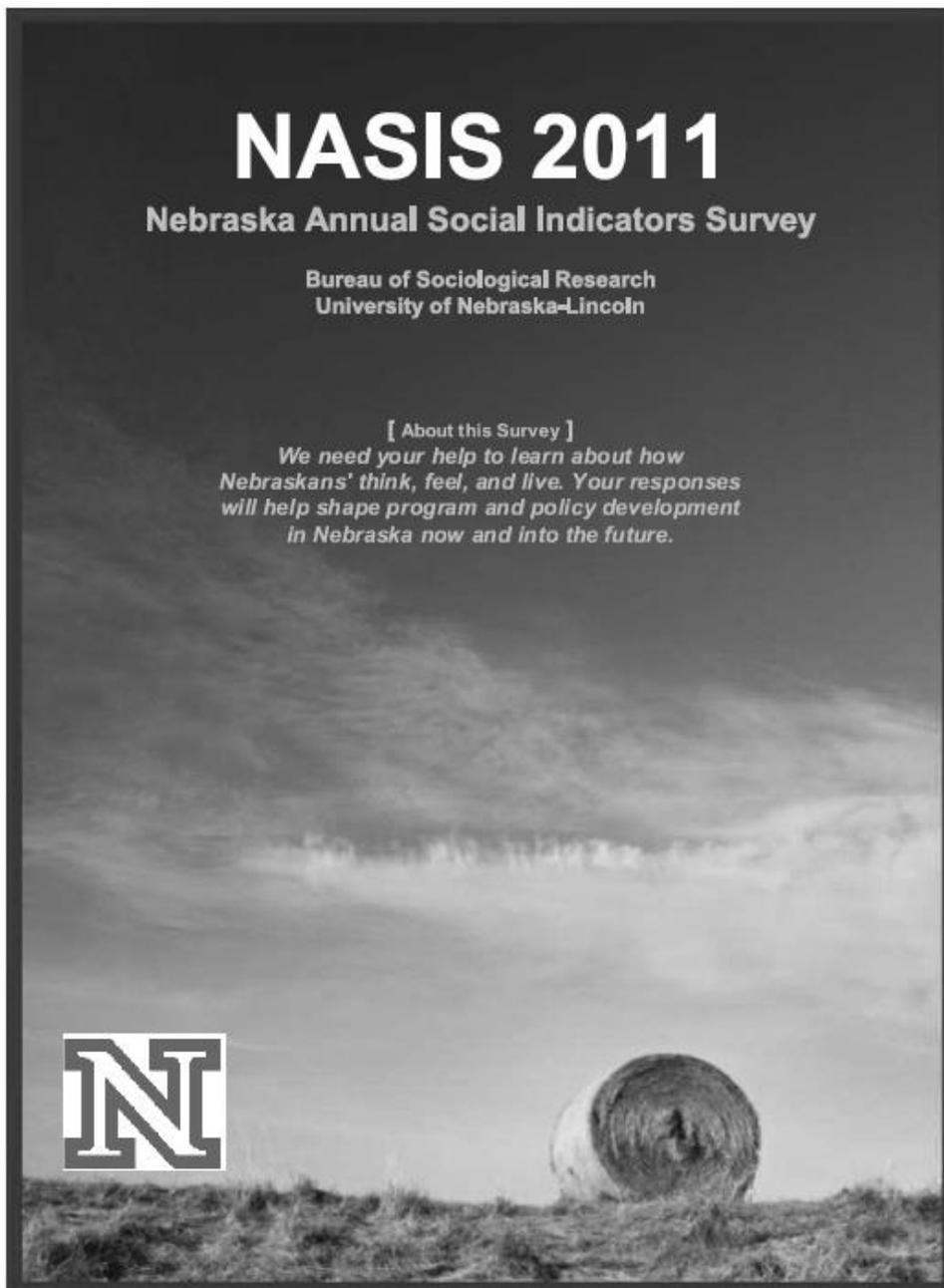
NASIS 2011

Nebraska Annual Social Indicators Survey

Bureau of Sociological Research
University of Nebraska-Lincoln

[About this Survey]

*We need your help to learn about how
Nebraskans' think, feel, and live. Your responses
will help shape program and policy development
in Nebraska now and into the future.*



5716541773 []

This survey includes questions on various topics, such as water issues, life processes, crime, and the media to name a few. Each section starts with a header to identify the topic related to the questions. We think you will find many, if not all, of the topics interesting and easy to answer.

WATER ISSUES

- | | |
|--|---|
| <p>1. How urgent are water quantity issues in Nebraska?</p> <p><input type="radio"/> Not at all urgent</p> <p><input type="radio"/> Not very urgent</p> <p><input type="radio"/> Somewhat urgent</p> <p><input type="radio"/> Urgent</p> <p><input type="radio"/> Extremely urgent</p> <p><input type="radio"/> Don't know/Unsure</p> <p>2. Would you be interested in participating in discussions about water quantity management planning?</p> <p><input type="radio"/> Not at all interested in participating</p> <p><input type="radio"/> Not very interested in participating</p> <p><input type="radio"/> Somewhat interested in participating</p> <p><input type="radio"/> Interested in participating</p> <p><input type="radio"/> Extremely interested in participating</p> <p>3. How much experience have you personally had with water issues?</p> <p><input type="radio"/> No experience</p> <p><input type="radio"/> A little experience</p> <p><input type="radio"/> Some experience</p> <p><input type="radio"/> Quite a bit of experience</p> <p><input type="radio"/> A lot of experience</p> <p><input type="radio"/> Don't know/Unsure</p> | <p>4. How effective is the Nebraska Department of Natural Resources at addressing water quantity management?</p> <p><input type="radio"/> Not at all effective</p> <p><input type="radio"/> A little effective</p> <p><input type="radio"/> Somewhat effective</p> <p><input type="radio"/> Quite effective</p> <p><input type="radio"/> Extremely effective</p> <p><input type="radio"/> Don't know/Unsure</p> <p>5. From your perspective, does the Nebraska Department of Natural Resources give Nebraskans an opportunity to be heard on their opinions about water quantity management?</p> <p><input type="radio"/> Gives no opportunity</p> <p><input type="radio"/> Gives a little opportunity</p> <p><input type="radio"/> Gives some opportunity</p> <p><input type="radio"/> Gives quite a bit of opportunity</p> <p><input type="radio"/> Gives a lot of opportunity</p> <p><input type="radio"/> Don't know/Unsure</p> |
|--|---|

LIFE PROCESSES

| 6. Please indicate how much you agree or disagree with each of the following statements: | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
|--|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| a. Humans share common ancestors with apes. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Vaccines use our body's natural defenses to cure disease. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. We owe our lives to the community of other organisms that share our bodies. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Death is part of the biology of life. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Many diseases result from interactions between genes and the environment. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. Women can wait to have a baby until their late 30s and still have a good chance of having a baby. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

CRIME & THE CRIMINAL JUSTICE SYSTEM

7. Please indicate how much you agree with the following statements:

| | Strongly Agree | Somewhat Agree | Slightly Agree | Do Not Agree |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| a. I am confident that the criminal justice system can reduce crime. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. I am confident that the police can protect me from violent crimes like assault. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. I am confident that the police can protect me from property crimes like theft. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. I think the justice system is fair in its treatment of people accused of committing crime. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. I think the justice system is fair in its treatment of people victimized by crime. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. I think the justice system is fair in its application of the death penalty. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. I think the media is reliable as a source of information about crime. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. I think the government is reliable as a source of information about crime. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| i. I worry about personally becoming a victim of a violent crime. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| j. I worry about personally becoming a victim of a property crime. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| k. I worry about someone in my family becoming a victim of crime. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| l. When I think about crime in this country, I feel angry. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

8. The criminal justice system has different functions. Please rank these functions in the order they are most important to you by marking the most important as 1, the next most important as 2, the next most important as 3, and the least important as 4.

- _____ Punishing offenders for their crimes
- _____ Rehabilitating offenders
- _____ Discouraging other people from committing crimes
- _____ Protecting society from offenders

9. If you could choose among the following approaches, which do you think is the best penalty for murder?

- Death penalty
- Life in prison without the possibility of parole
- Prison with the possibility of parole
- Unsure/Do not want to answer

10. The rate of crime in the United States seems to be:

- Decreasing
- Staying about the same
- Increasing

11. The rate of crime in my area seems to be:

- Decreasing
- Staying about the same
- Increasing

MEDIA & TELEVISION

12. We are interested in knowing how often people watch different kinds of TV programs. How many days in an average week do you:

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | days | | | | | | | days |
| a. Watch local news? | <input type="radio"/> |
| b. Watch news commentary shows like The O'Reilly Factor or Anderson Cooper 360? | <input type="radio"/> |
| c. Watch news magazine shows like ABC's Primetime or NBC's Dateline? | <input type="radio"/> |
| d. Watch national news like CBS Evening News or CNN Newsroom? | <input type="radio"/> |
| e. Watch TV crime dramas like Law & Order or CSI? | <input type="radio"/> |
| f. Watch reality programs about crime like America's Most Wanted or COPS? | <input type="radio"/> |
| g. Watch non-fictional programs about crime like those on A&E or the Discovery Channel? | <input type="radio"/> |

13. On a scale where 1 means "Not at All" and 9 means "Very Much," rate how familiar you are with each of the following names:

| | Not at All | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Very Much |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | | | | | | | 9 |
| a. Rush Limbaugh | <input type="radio"/> |
| b. Bill O'Reilly | <input type="radio"/> |
| c. Glenn Beck | <input type="radio"/> |
| d. Sean Hannity | <input type="radio"/> |
| e. Ann Coulter | <input type="radio"/> |

14. Thinking only of the names that you are familiar with, how much do you like or dislike the people in that list?

Strongly dislike

Somewhat dislike

Neither dislike nor like

Somewhat like

Strongly like

Do not know any of the names well enough

15. On a scale where 1 means "Not at All" and 9 means "Very Much," rate the following statements:

| | Not at All | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Very Much |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | | | | | | | 9 |
| a. How politically informed do you think Americans are? | <input type="radio"/> |
| b. How politically informed do you think liberals are? | <input type="radio"/> |
| c. How politically informed do you think conservatives are? | <input type="radio"/> |

VACATION & TRAVEL

16. How many times in the last 12 months did you visit an historic site or museum in Nebraska?

→ If your answer is "0," go to # 20.

17. If there were no historic sites or museums to visit in Nebraska, what would you most likely do instead? (Choose only one response.)

- Visit another type of attraction in Nebraska
- Spend the money on something else in Nebraska
- Visit an historic site or museum in another state
- Visit another type of attraction in another state
- Spend the money on something else in another state
- Save the money
- Other, please specify:

18. How many times in the last 12 months did you visit an historic site or museum in Nebraska as part of a trip where you travelled 50 or more miles, one way, away from home?

→ If your answer is "0," go to # 20.

19. For your 3 most recent trips of at least 50 miles to an historic site or museum in Nebraska, please answer the following questions:

| | How many people traveled with you? | How many people from your household traveled with you? | Was this an overnight trip or a day trip? | What was the primary purpose of this trip? (Choose only one) | About how much did the trip cost FOR YOU ONLY? |
|----------------------|--|---|--|--|--|
| Most recent trip | <input type="text"/> <input type="text"/> people | <input type="text"/> <input type="text"/> household members | <input type="radio"/> Overnight trip <input type="radio"/> Day trip | <input type="radio"/> Convention, training/seminar, or other group meeting <input type="radio"/> Other business <input type="radio"/> Visit friends or relatives <input type="radio"/> Getaway weekend <input type="radio"/> General vacation <input type="radio"/> Other leisure | \$ _____.00 |
| 2nd most recent trip | <input type="text"/> <input type="text"/> people | <input type="text"/> <input type="text"/> household members | <input type="radio"/> Overnight trip <input type="radio"/> Day trip | <input type="radio"/> Convention, training/seminar, or other group meeting <input type="radio"/> Other business <input type="radio"/> Visit friends or relatives <input type="radio"/> Getaway weekend <input type="radio"/> General vacation <input type="radio"/> Other leisure | \$ _____.00 |
| 3rd most recent trip | <input type="text"/> <input type="text"/> people | <input type="text"/> <input type="text"/> household members | <input type="radio"/> Overnight trip <input type="radio"/> Day trip | <input type="radio"/> Convention, training/seminar, or other group meeting <input type="radio"/> Other business <input type="radio"/> Visit friends or relatives <input type="radio"/> Getaway weekend <input type="radio"/> General vacation <input type="radio"/> Other leisure | \$ _____.00 |

PHYSICAL & SOCIAL ENVIRONMENT

20. How satisfied are you with the quality of roads in your area?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

21. How often do you recycle household waste such as newspapers, plastic bottles, and aluminum cans?

- Always
- Sometimes
- Rarely
- Never

22. How often do you take steps to conserve the amount of water your household uses?

- Always
- Sometimes
- Rarely
- Never

23. I can find the kind of job I want in Nebraska. Would you say you strongly agree, agree, disagree, or strongly disagree with that statement?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Doesn't apply, I do not work.

GENDER & PARENTHOOD

24. Please indicate how much you agree or disagree with the following statements:

| | Strongly Agree | Agree | Disagree | Strongly Disagree |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| a. It is important for me to have children. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. I think my life will be or is more fulfilling with children. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. I always thought I'd be a parent. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. My life is or would be just as fulfilling without children. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Having children is important to my feeling complete as a man/woman. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. Raising children is or has been important in my life. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

25. Below is a line with completely feminine at one end and completely masculine at the other. We are going to ask you to place a couple of people on the line. Place the following letters on the line:

- Write **A** where you think you land.
- Write **B** where you think our society's ideal woman would be.
- Write **C** where you think our society's ideal man would be.
- Write **D** where you think your spouse or partner lands (if applicable).



PERSONAL FEELINGS

26. Now we have some statements about how you might have felt during the past week. Below, please indicate the number of days in the past week, including today, that:

| | 0 days (none) | 1 | 2 | 3 | 4 | 5 | 6 | 7 days (all week) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. You felt sad. | <input type="radio"/> |
| b. You felt hopeful about the future. | <input type="radio"/> |
| c. You felt you were as good as other people. | <input type="radio"/> |
| d. You felt bothered by things that usually don't bother you. | <input type="radio"/> |
| e. You felt lonely. | <input type="radio"/> |
| f. You had trouble keeping your mind on what you were doing. | <input type="radio"/> |
| g. You felt that everything you did was an effort. | <input type="radio"/> |
| h. You felt fearful. | <input type="radio"/> |
| i. You talked less than usual. | <input type="radio"/> |
| j. You felt depressed. | <input type="radio"/> |
| k. You did not feel like eating; your appetite was poor. | <input type="radio"/> |
| l. You felt that you could not shake off the blues even with the help of family or friends. | <input type="radio"/> |
| m. Your sleep was restless. | <input type="radio"/> |
| n. You could not get "going." | <input type="radio"/> |

27. In general, I think of myself as a:

| | Strongly Agree | Agree | Disagree | Strongly Disagree |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. Competent person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Compassionate person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Warm person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Forceful person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Independent person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. Understanding person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. Cheerful person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. Ambitious person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| i. Feminist | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

28. It is important for me to look physically attractive in public.

- Strongly disagree
 Disagree
 Agree
 Strongly agree

29. I feel it is important to keep my home attractive.

- Strongly disagree
 Disagree
 Agree
 Strongly agree

HOME & FINANCES

30. Do you or some member of your household own your home outright, buying it, or renting?

- Own outright
- Buying (paying a mortgage)
- Renting
- Provided as part of job/wages
- Other, please specify:

31. Which of the following comes closest to the kind of housing unit you now live in?

- Detached single family house
- Mobile home
- Townhouse/Condominium
- Apartment/Duplex
- Other, please specify:

32. How many years have you lived in this county? Please enter "0" if less than 1 year.

 year(s)

33. Please indicate the category that describes your total family income in the last 12 months.

- Under \$5,000
- \$5,000 - \$9,999
- \$10,000 - \$14,999
- \$15,000 - \$19,999
- \$20,000 - \$24,999
- \$25,000 - \$29,999
- \$30,000 - \$39,999
- \$40,000 - \$49,999
- \$50,000 - \$59,999
- \$60,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 or more

34. During the past 12 months, how much difficulty have you had paying your bills?

- A great deal of difficulty
- Quite a bit of difficulty
- Some difficulty
- A little difficulty
- No difficulty at all

35. Think again over the past 12 months. Generally, at the end of each month did you end up with:

- More than enough money left
- Some money left over
- Just enough to make ends meet
- Almost enough to make ends meet
- Not enough to make ends meet

36. Overall, how satisfied are you with your current financial situation?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

37. What about your financial prospects? Do you feel that you are better off this year than you were two years ago at this time, about the same, or worse off?

- Better
- Same
- Worse

38. The following statements concern your family's financial situation. For each statement, please indicate how much you agree or disagree.

| | Strongly Agree | Agree | Disagree | Strongly Disagree | Don't Know |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. My family has enough money to afford the kind of home we need. | <input type="radio"/> |
| b. We have enough money to afford the kind of clothing we need. | <input type="radio"/> |
| c. We have enough money to afford the kind of food we need. | <input type="radio"/> |
| d. We have enough money to afford the kind of medical care we need. | <input type="radio"/> |

ABOUT YOUR HOUSEHOLD

39. What is your current marital or relationship status?
- Married
 - Married, living apart
 - Not married but living with partner (cohabiting)
 - Never married
 - Divorced
 - Widowed
 - Separated

Go to # 41

40. Does your spouse or partner typically work full-time, part-time, go to school, keep house, or something else? (Check all that apply.)
- Working a full time job (35 hours or more)
 - Working a part time job(s)
 - With a job, but not at work (due to illness, vacation, strike)
 - Unemployed, laid off, looking for work
 - Retired
 - In school
 - Keeping house
 - Disabled
 - Other, please specify:

41. Are you still living in the same residence as you were 2 years ago?
- Yes
 - No

42. Do you live on a farm, in open country but not on a farm, or in a town or city?
- Farm
 - Open country, but not a farm
 - Town or city

43. Including yourself, how many adults age 19 and older live in your household?
- adults (age 19 and older)

44. How many children ages: (Please write "0" if none.)

a. 5 and younger live in your household?

b. 6 to 12 live in your household?

c. 13 to 18 live in your household?

45. For each of the people who were living or staying in the house, apartment or mobile home, please provide their initials, their relationship to you, their age, their date of birth, and their sex on the table below. (The person completing this survey should be Person 1.)

| | Initials | Relationship to you | Age | Date of Birth (MM/DD/YYYY) | Sex (Circle one) |
|----------|---|--|---|---|------------------|
| Person 1 | <input style="width: 30px; height: 20px;" type="text"/> | SELF | <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> | Male Female |
| Person 2 | <input style="width: 30px; height: 20px;" type="text"/> | <input style="width: 150px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> | Male Female |
| Person 3 | <input style="width: 30px; height: 20px;" type="text"/> | <input style="width: 150px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> | Male Female |
| Person 4 | <input style="width: 30px; height: 20px;" type="text"/> | <input style="width: 150px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> | Male Female |
| Person 5 | <input style="width: 30px; height: 20px;" type="text"/> | <input style="width: 150px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> | Male Female |
| Person 6 | <input style="width: 30px; height: 20px;" type="text"/> | <input style="width: 150px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> | Male Female |
| Person 7 | <input style="width: 30px; height: 20px;" type="text"/> | <input style="width: 150px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> | Male Female |
| Person 8 | <input style="width: 30px; height: 20px;" type="text"/> | <input style="width: 150px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> | <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> / <input style="width: 20px; height: 20px;" type="text"/> | Male Female |

ABOUT YOURSELF

46. Are you:

Male
 Female

47. Were you born in Nebraska, another state, or a foreign country?

Nebraska
 Another state
 Foreign country

48. Do you consider yourself to be Hispanic or Latino/a?

Yes
 No

49. What race or races do you consider yourself to be? (Check all that apply.)

White (Caucasian)
 Black or African American
 Asian
 American Indian or Alaska Native
 Native Hawaiian or Other Pacific Islander
 Other race(s), please specify:

50. What is the highest degree you have attained?

No diploma
 High School Diploma/GED
 Some college, but no degree
 Technical/Associate/Junior College (2 yr, LPN)
 Bachelor's Degree (4 yr, BA, BS, RN)
 Graduate Degree (Masters, PhD, Law, Medicine)

51. Do you typically work full-time, part-time, go to school, keep house, or something else? (Check all that apply.)

Working a full time job (35 hours or more)
 Working a part time job(s)
 Unemployed, laid off, looking for work
 Retired
 In school
 Keeping house
 Disabled
 Other, please specify:

Go to # 54

52. How satisfied are you with your job?

Very satisfied
 Satisfied
 Neither satisfied nor dissatisfied
 Dissatisfied
 Very dissatisfied

53. During the average week, how many hours do you usually work, NOT including the time you travel to and from work? (In the box below, write total hours worked including any second jobs.)

average total hours per week

54. Liberal and conservative are terms often used to describe people's beliefs about politics and government. In general, do you see yourself politically as very liberal, liberal, middle-of-the-road, conservative, very conservative, or something else?

Very liberal
 Liberal
 Middle-of-the-road
 Conservative
 Very conservative
 Other, please specify:

55. Generally speaking, do you consider yourself a Democrat, a Republican, an Independent, or something else?

Democrat
 Republican
 Independent
 Other, please specify:

56. Do you consider yourself to be Protestant, Catholic, Jewish, Muslim, or something else?

Protestant
 Catholic
 Jewish
 Muslim
 None (no religion)
 Other, please specify:

Go to # 58

yourself to be:

- Evangelical Protestant
- Fundamentalist Protestant
- Mainline Protestant
- Liberal Protestant
- Other, please specify:

58. How often do you attend religious services?

- Several times a week
- Once a week
- Nearly every week
- About once a month
- Several times a year
- About once a year
- Less than once a year
- Never

59. In general, how much do your religious or spiritual beliefs influence your daily life?

- Very much
- Quite a bit
- Some
- A little
- None
- Doesn't apply, not religious or spiritual

61. Would you say that your overall health and well being is excellent, good, fair, or poor?

- Excellent
- Good
- Fair
- Poor

62. Do you smoke cigarettes?

- Yes
- No

63. In the past year, have you been the victim of any crime?

- Yes
- No

64. What is your current zip code?

| CONCLUDING REMARKS | | | | | | | | | |
|---|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 65. The NASIS survey covers a wide variety of topics. Please indicate your amount of interest in each of the following survey topics where 1 means "Not at all interested" and 9 means "Very interested": | | | | | | | | | |
| | Not at All Interested | | | | | | | | Very Interested |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| a. Life Processes | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Crime and the Criminal Justice System | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Your Visits to Historic Places in Nebraska | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Your Family's Financial Situation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Parenting and Raising Children | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. Political Views | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. Water Issues | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. Femininity/Masculinity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| i. Your Feelings in the Past Week | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| j. Other _____ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

66. How much did you enjoy completing this survey?

- A great deal
 Somewhat
 Not very much
 Not at all

67. How many minutes did you spend completing this survey?

minutes

68. In your opinion, what is the most important issue currently facing the state of Nebraska?

Thank you! That completes our questions. We greatly appreciate the time you have taken to complete this survey. For your convenience, please use the postage-paid return envelope included in your survey packet to return your questionnaire to the Bureau of Sociological Research.

Questions or requests from this survey can be directed to:
 Bureau of Sociological Research
 University of Nebraska-Lincoln
 Phone: 1-800-480-4549 (toll free)
 E-mail: bosr@unl.edu

UNIVERSITY OF
Nebraska
 Lincoln

2
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1
1

Appendix B: Cognitive Interview Recruitment Materials

Appendix C: Cognitive Interview Protocol

Work Life and Gender Survey
Cognitive Interview Protocol

:: Prior to arrival, make sure the informed consent, payment, recorder, and computer are set up, with water and tissues nearby. The survey should be set up on the computer before the interviewee arrives. A paper version of the survey should be available for reference for the interviewer. A notepad and pens are available for note taking.

:: Greet the interviewee and seat them at the table. Make sure they are comfortable. Describe the survey.

Thank you for your help. Today you will be helping with the design of a web survey about work, life and gender. I am going to ask you to complete the survey, while reading the questions, options, and your answers out loud. I will have additional questions for some questions. I will be recording this session for reference, as well as taking notes. Before we start, I need to you read and sign the informed consent.

:: Give them the informed consent (2 copies) and direct them to read and then sign the top copy. Given them the bottom copy and the envelope with the payment inside.

This is a cognitive interview, which means that I want to know about how you are making your decisions. I also want you to tell me if anything does not make sense or is unclear to you. This is not something that we regularly do, so before we start with the survey, I want to ask you a warm-up question.

Think about where you live. How many windows are there? Describe to me how you are answering this question.

Probe: Are you counting windows in doors?

Probe: Are you counting sliding glass doors?

Probe: If you have a basement, are including any windows down there?

:: Set up the interviewee with the computer, with the survey ready to go.

If you are ready, we can start on the web survey. Have you completed a web survey before? Here is the mouse. Do you have any questions? Don't forget to tell me out loud any thoughts that go through your mind.

:: Generic probes/responses

Tell me what you are thinking

How did you get that answer?

Good. This is really helping me understand your thought process

:: Specific question follow-ups

Do you feel that your gender has helped your pursuit of job opportunities?

What does gender mean to you?

Which of the following best describes your current gender identity?

When you read gender identity, what comes to mind?

:: If they struggle with it, ask:

Would a description of what we mean by gender identity help you answer?

:: There are three questions that are based on the same scale. Even though they are similar, I'd like you to complete each.

Below is a line with completely feminine at one end and completely masculine at the other. We are going to ask you to place a couple of people on the line. Place the following letters on the line:

How difficult is this task?

When you read femininity, what comes to mind? And masculinity?

Appendix D: Cognitive Interview Coding Shell

Appendix E: WLG Recruitment Scripts

Facebook/tumblr promo:

Can you spare some time to do a survey? The survey is on Work, Life, and Gender, and includes questions about employment, work climate, harassment, sex and gender, survey responses, and demographic information. It should take 15-30 minutes, and provides the data for the last part of my dissertation. For more information, email aliank@unl.edu. Feel free to share the link with others, and thank you!

https://ssp.qualtrics.com/SE/?SID=SV_enfCACvlpSFNgLb

Listserv/email promo:

I am a doctoral candidate at University of Nebraska-Lincoln in the Sociology department. My dissertation is on the measurement of gender in quantitative surveys. To gain a better understanding of gender measurement in surveys, as well as the relationship between gender and work outcomes, I am conducting a web survey. The survey (linked below) includes questions about sex, gender, and gender identity, as well as employment, work climate, harassment, survey responses, and demographic information.

The survey will take about 15-30 minutes to complete. There is no compensation for responding, but some people enjoy answering survey questions.

Please feel free to email me (aliank@unl.edu) if you have any additional questions or concerns related to this study.

Feel free to share this information with others whom you think would be interested.

https://ssp.qualtrics.com/SE/?SID=SV_enfCACvlpSFNgLb

Thank you,

Alian Kasabian

CL houston > community > volunteers

[reply](#) Posted: seconds ago

Help with research

Can you spare some time to do a survey? The survey is on Work, Life, and Gender, and includes questions about sex, gender, and gender identity, as well as employment, work climate, harassment, survey responses, and demographic information. It should take 15-30 minutes, and provides the data for the last part of my dissertation. For more information, email alank@unl.edu. Feel free to share the link with others, and thank you!

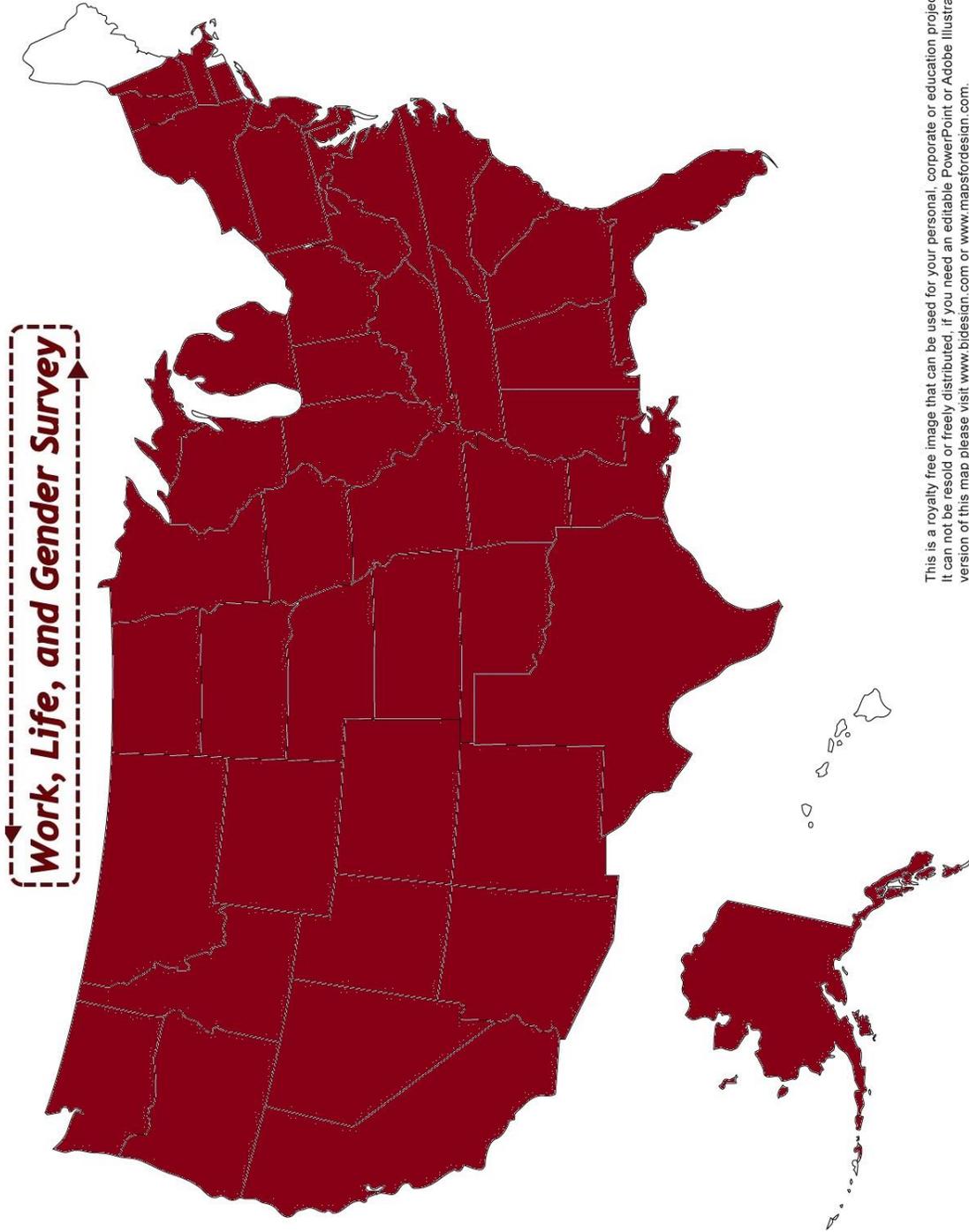
https://ssp.qualtrics.com/SE/?SID=SV_enfCACvIpSFNgLb

- do NOT contact me with unsolicited services or offers

posted: seconds ago [email to friend](#) [best of](#) ¹²

Craigslist ad example

Appendix F: WLG Coverage Maps



Work, Life, and Gender Survey

This is a royalty free image that can be used for your personal, corporate or education projects. It can not be resold or freely distributed, if you need an editable PowerPoint or Adobe Illustrator version of this map please visit www.bjdesign.com or www.mapstordesign.com. This text can be cropped off. © Copyright Bruce Jones Design Inc. 2009



Appendix G: WLG Survey Questionnaire Screenshots

Work, Life, and Gender Survey

Welcome to the Work, Life, and Gender Survey!

Thank you for taking the time to help out. This survey includes questions about employment, work climate, harassment, sex and gender, survey responses, and demographic information. It should take 15-30 minutes to complete.

To complete this survey, you must be at least 18 years old. It is best viewed on a desktop, laptop, or tablet, but can be completed on smaller mobile devices.

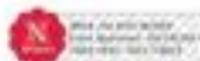
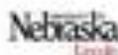
Before starting the survey, please read the informed consent on the next page.

>>

Contact: Alian Kasabian, aliansk@unl.edu, (402) 472-5990

Survey Powered By [Qualtrics](#)

Work, Life, and Gender Survey



Phone: (402) 485-1240
Email: worklife@unl.edu

Title: Work, Life, and Gender Survey (2014-2015)

Purpose:

This research project is a web survey on employment, work climate, harassment, sex and gender, survey responses, and demographic information. You are invited to participate in this study because you are at least 18 years of age.

Procedures:

You will be asked to complete a web survey. It includes questions about employment, work climate, harassment, sex and gender, survey responses, and demographic information. It is expected to take 15-30 minutes to complete.

Benefits:

There are no direct benefits to you as a research participant, although some people enjoy answering survey questions. The results from this research will provide a more complete picture of the relationship between gender and work outcomes, as well as survey behavior related to sex and gender.

Risks and Discomforts:

The survey includes questions that may be sensitive or uncomfortable for you to answer. You are not required to answer every question, but your responses will make the research more informative. There are no other known risks or discomforts associated with this research. If you feel distress from this research, what else to talk to someone, and are located in the USA, 1-800-273-8255 (TALK) is a free national crisis helpline.

Confidentiality:

Any information obtained during this study which could identify you will be kept strictly confidential. The data will be assembled on secure servers and only accessed via password protected computers. The information obtained in this study may be published in scientific journals or presented at scientific meetings but the data will be reported without any identifying materials attached.

Opportunity to Ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. You can be reached via email at worklife@unl.edu, or by phone at (402) 472-2821 (in the USA). You may also contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6960 to voice concerns about the research or if you have any questions about your rights as a research participant.

Freedom to Withdraw:

Participation in this study is voluntary. You can refuse to participate or withdraw at any time without penalty.

Consent Right to Receive a Copy:

You are voluntarily making a decision whether or not to participate in this research study. Your contribution into the survey means you have decided to participate, and have read and understood the information presented. You may get a copy of the consent form to keep.

Name and Phone number of Investigator(s)

Alan Kautzman, Ed., Principal Investigator Office: (402) 472-2821 Email: worklife@unl.edu
Jenna Smith, Ph.D., Project Supervisor Office: (402) 472-2821 Email: jsmith@unl.edu

111 Sutherland Ave | P.O. Box 80204 | Lincoln, NE 68580-8024 | (402) 472-2821 | (800) 485-1240

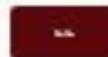
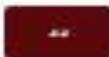
[Click here](#) if this page is available in the English language.



Yes, I have read the [Informed Consent](#) and wish to continue.



No, I do not wish to participate.



Contact: Alan Kautzman, worklife@unl.edu, (402) 472-2821

Survey funded by [NSERC](#)

Informed consent



IRB #: 201-4091-6656P
Date Approved: 09/16/2014
Valid Until: 09/17/2015

COLLEGE OF ARTS AND SCIENCES
Department of Sociology

Title: Work, Life, and Gender Survey (IRB #14656)

Purpose:

This research project is a web survey on employment, work climate, harassment, sex and gender, survey responses, and demographic information. You are invited to participate in this study because you are at least 18 years of age.

Procedures:

You will be asked to complete a web survey. It includes questions about employment, work climate, harassment, sex and gender, survey responses, and demographic information. It is expected to take 15-30 minutes to complete.

Benefits:

There are no direct benefits to you as a research participant, although some people enjoy answering survey questions. The results from this research will provide a more complete picture of the relationship between gender and work outcomes, as well as survey behavior related to sex and gender.

Risks and/or Discomforts:

The survey includes questions that may be awkward or uncomfortable for you to answer. You are not required to answer every question, but your responses will make the research more informative. There are no other known risks or discomforts associated with this research. If you feel distress from this research, would like to talk to someone, and are located in the USA, 1-800-273-8255 (TALK) is a free national crisis hotline.

Confidentiality:

Any information obtained during this study which could identify you will be kept strictly confidential. The data will be maintained on secure servers and only accessed via password protected computers. The information obtained in this study may be published in scientific journals or presented at scientific meetings but the data will be reported without any identifying materials attached.

Opportunity to Ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. I can be reached via email at aliant@unl.edu, or by phone at (402) 472-3631 (in the USA). You may also contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 to voice concerns about the research or if you have any questions about your rights as a research participant.

Confidentiality:

Any information obtained during this study which could identify you will be kept strictly confidential. The data will be maintained on secure servers and only accessed via password protected computers. The information obtained in this study may be published in scientific journals or presented at scientific meetings but the data will be reported without any identifying materials attached.

Opportunity to Ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. I can be reached via email at aliansk@unl.edu, or by phone at (402) 472-3631 (in the USA). You may also contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 to voice concerns about the research or if you have any questions about your rights as a research participant.

Freedom to Withdraw:

Participation in this study is voluntary. You can refuse to participate or withdraw at any time with no penalty.

Consent, Right to Receive a Copy:

You are voluntarily making a decision whether or not to participate in this research study. Your continuation into the survey means you have decided to participate, and have read and understood the information presented. You may print a copy of this consent form to keep.

Name and Phone number of investigator(s)

| | | |
|--|------------------------|---|
| Alian Kasabian, MA, Principal Investigator | Office: (402) 472-3631 | Email: aliansk@unl.edu |
| Jolene Smyth, Ph.D., Project Supervisor | Office: (402) 472-0662 | Email: jsmyth2@unl.edu |

711 Oldfather Hall / P.O. Box 880324 / Lincoln, NE 68588-0324 / (402) 472-3631 / FAX (402) 472-6070

A .pdf of this page is available in the link below

- Yes, I have read the [Informed Consent](#) and wish to continue
- No, I do not wish to participate

<<

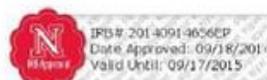
>>

Work, Life, and Gender Survey

Sorry, you cannot continue until you correct the following:

- Issue 1
 - Please answer this question.

Please answer this question.



COLLEGE OF ARTS AND SCIENCES
Department of Sociology

Title: Work, Life, and Gender Survey (IRB #14656)

Purpose:

This research project is a web survey on employment, work climate, harassment, sex and gender, survey responses, and demographic information. You are invited to participate in this study because you are at least 18 years of age.

Procedures:

You will be asked to complete a web survey. It includes questions about employment, work climate,

Error message if informed consent not answered

Work, Life, and Gender Survey

Do you typically work full-time, part-time, go to school, keep house, or something else?

(Check all that apply)

- Working a full-time job (35 + hours)
- Working a part time job(s) (under 35 hours)
- With a job, but not at work (due to illness, vacation, strike)
- Unemployed, laid off, looking for work
- Retired
- In school
- Keeping house
- Disabled
- Other, please specify

<<

>>

Start of job-related questions

Work, Life, and Gender Survey

How many jobs do you work at for pay?

During the average week, how many hours do you usually work?
(NOT including the time you travel to and from work)

>>

Work, Life, and Gender Survey

The following questions refer to your primary job, the job you do most often.

What is your primary job title? (Examples: Clerical aide, Long haul trucker, Real estate agent, etc.)

What industry is this in? (Examples: Construction, Education, Hospitality, etc.)

[<<](#)[>>](#)

Work, Life, and Gender Survey

Did you have any specialized training or prior experience in this field before starting your primary job?

- Yes
 No

How long have you worked at your primary job?
(Please indicate months or years, as appropriate)

Months

Years

<<

>>

Work, Life, and Gender Survey

At your primary job, do you supervise another employee who is directly responsible to you?

- Yes
- No

Do you influence or set the rate of pay received by others?

- Yes
- No

Do you have the authority to hire or fire others?

- Yes
- No

<<

>>

Work, Life, and Gender Survey

At your primary job, do you supervise another employee who is directly responsible to you?

- Yes
- No

Do you influence or set the rate of pay received by others?

- Yes
- No

Do you have the authority to hire or fire others?

- Yes
- No

<<

>>

Work, Life, and Gender Survey

Do you report to a boss or supervisor at your primary job?

- Yes
- No

Do you have coworkers at your primary job?

- Yes
- No

<<

>>

Work, Life, and Gender Survey

How much do you agree or disagree with each of the following statements?

| | Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree |
|---|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
| I have the freedom to arrange my work as I see fit | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I can decide on my own how to go about doing my work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I have opportunity for independence and freedom in how I do my work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

How satisfied or dissatisfied are you with your primary job?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

<<

>>

Work, Life, and Gender Survey

Please indicate whether or not each of the following benefits is available to you at your primary job, even if you are not receiving them.

| | Yes | No | Not Sure |
|---|-----------------------|-----------------------|-----------------------|
| Sick days with full pay | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Paid vacation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Paid holidays other than Christmas and New Year's Day | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A health plan or medical insurance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Dental benefits | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A retirement or 401k plan | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Have you received a pay raise while working at this job?

- Yes
- No

<<

>>

Work, Life, and Gender Survey

Have you been promoted to a higher position or job title while working at this job?

- Yes
- No
- Not applicable

Is your job one in which there is a possibility that you could move up or be promoted in the future?

- Yes
- No
- Don't know

<<

>>

Work, Life, and Gender Survey

Have you been promoted to a higher position or job title while working at this job?

- Yes
- No
- Not applicable

Is your job one in which there is a possibility that you could move up or be promoted in the future?

- Yes
- No
- Don't know

Do you think you are likely to move up or be promoted?

- Yes
- No
- Maybe

<<

>>

Work, Life, and Gender Survey

How often do you have difficulty understanding how to do your job well?
Does this happen:

- All of the time
- Frequently
- Sometimes
- Rarely
- Never

- Not applicable

How often do you have difficulty knowing what's expected of you at
your job? Does this happen:

- All of the time
- Frequently
- Sometimes
- Rarely
- Never

- Not applicable

<<

>>

Work, Life, and Gender Survey

How often do you have difficulty getting along with your co-workers?
Does this happen:

- All of the time
- Frequently
- Sometimes
- Rarely
- Never

If any issues come up between you and your co-workers, how likely is it that someone at your job will speak up for you?

- Very likely
- Likely
- A little likely
- Unlikely

<<

>>

Work, Life, and Gender Survey

How often do you have difficulty getting along with your boss/supervisor? Does this happen:

- All of the time
- Frequently
- Sometimes
- Rarely
- Never

If any issues come up between you and your boss/supervisor, how likely is it that someone at your job will speak up for you?

- Very likely
- Likely
- A little likely
- Unlikely

<<

>>

Work, Life, and Gender Survey

How much do you agree or disagree with each of the following statements?

| | Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree | Not applicable |
|--|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| My supervisor always gives me the information I need to do my job well. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My supervisor is a good role model for me. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My supervisor provides me with opportunities. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My supervisor provides me with guidance. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree | Not applicable |
| My supervisor creates a team atmosphere (working together to do a better job). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My supervisor supports my efforts to better myself. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My supervisor always treats me in a respectful manner. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My supervisor supports my efforts to be promoted. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

<<

>>

Work, Life, and Gender Survey

The next series of questions relate to potential obstacles in your life

Please indicate whether you have done each of the following to avoid discrimination or harassment:

| | Yes | No | Not applicable |
|---------------------------------------|-----------------------|-----------------------|-----------------------|
| Didn't seek a promotion or raise | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Changed jobs | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Stayed in a job you'd prefer to leave | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hidden your personal life at work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Have you done anything else to avoid discrimination or harassment at work?

- Yes
 No

<<

>>

Start of barriers questions

Work, Life, and Gender Survey

How often have you been criticized at work for not behaving like a real man or a real woman should?

- All of the time
- Frequently
- Sometimes
- Rarely
- Never

<<

>>

Work, Life, and Gender Survey

The remaining questions in this section are not specifically about work.

Thinking about your life in general, please indicate whether you have experienced each of the following:

| | Yes | No |
|---|-----------------------|-----------------------|
| Have you experienced verbal harassment (e.g. being called names)? | <input type="radio"/> | <input type="radio"/> |
| Have you been threatened with physical harm? | <input type="radio"/> | <input type="radio"/> |
| Have you experienced physical harassment (e.g. being pushed or shoved)? | <input type="radio"/> | <input type="radio"/> |
| Have you experienced physical assault (e.g. being punched or kicked)? | <input type="radio"/> | <input type="radio"/> |

<<

>>

Work, Life, and Gender Survey

You said you experienced verbal harassment. Was it because of your gender?

- Yes
- No
- Yes, and for other reasons

<<

>>

Work, Life, and Gender Survey

How often have you experienced verbal harassment because of your gender?

- Frequently
- Sometimes
- Rarely

Can you please say where verbal harassment because of your gender happened? (Ex: at work, at school, on the street...)

When did this occur?
(Check all that apply)

- In the last month
- 2-6 months ago
- 6 months to a year ago
- 1-5 years ago
- More than five years ago

<<

>>

Work, Life, and Gender Survey

How often have you experienced verbal harassment for reasons other than your gender?

- Frequently
- Sometimes
- Rarely

Please describe the reasons for verbal harassment, if you know.

Can you please say where verbal harassment for other reasons happened? (Ex: at work, at school, on the street...)

When did this occur?
(Check all that apply)

- Within the last month
- 2-6 months ago
- 6 months to a year ago
- 1-5 years ago
- More than 5 years ago

<<

>>

Work, Life, and Gender Survey

You said you have been threatened with physical harm. Was it because of your gender?

- Yes
- No
- Yes, and for other reasons

<<

>>

Work, Life, and Gender Survey

How often have you been threatened with physical harm because of your gender?

- Frequently
- Sometimes
- Rarely

Can you please say where you have been threatened with physical harm because of your gender happened? (Ex: at work, at school, on the street...)

When did this occur?
(Check all that apply)

- Within the last month
- 2-6 months ago
- 6 months to a year ago
- 1-5 years ago
- More than 5 years ago

<<

>>

Work, Life, and Gender Survey

How often have you been threatened with physical harm for reasons other than your gender?

- Frequently
- Sometimes
- Rarely

Please describe the reasons for threats of physical harm, if you know.

Can you please say where you have been threatened with physical harm for other reasons happened? (Ex: at work, at school, on the street...)

When did this occur?
(Check all that apply)

- Within the last month
- 2-6 months ago
- 6 months to a year ago
- 1-5 years ago
- More than 5 years ago

<<

>>

Work, Life, and Gender Survey

You said you experienced physical harassment. Was it because of your gender?

- Yes
- No
- Yes, and for other reasons

<<

>>

Work, Life, and Gender Survey

How often have you experienced physical harassment because of your gender?

- Frequently
- Sometimes
- Rarely

Can you please say where physical harassment because of your gender happened? (Ex: at work, at school, on the street...)

When did this occur?
(Check all that apply)

- Within the last month
- 2-6 months ago
- 6 months to a year ago
- 1-5 years ago
- More than five years ago

<<

>>

Work, Life, and Gender Survey

How often have you experienced physical harassment for reasons other than your gender?

- Frequently
- Sometimes
- Rarely

Please describe the reasons for physical harassment, if you know.

Can you please say where physical harassment for other reasons happened? (Ex: at work, at school, on the street...)

When did this occur?
(Check all that apply)

- Within the last month
- 2-6 months ago
- 6 months to a year ago
- 1-5 years ago
- More than 5 years ago

<<

>>

Work, Life, and Gender Survey

You said you experienced physical assault. Was it because of your gender?

- Yes
- No
- Yes, and for other reasons

<<

>>

Work, Life, and Gender Survey

How often have you experienced physical assault because of your gender?

- Frequently
- Sometimes
- Rarely

Can you please say where physical assault because of your gender happened? (Ex: at work, at school, on the street...)

When did this occur?
(Check all that apply)

- Within the last month
- 2-6 months ago
- 6 months to a year ago
- 1-5 years ago
- More than 5 years ago

<<

>>

Work, Life, and Gender Survey

How often have you experienced physical assault for reasons other than your gender?

- Frequently
- Sometimes
- Rarely

Please describe the reasons for physical assault, if you know.

Can you please say where physical assault for other reasons happened? (Ex: at work, at school, on the street...)

When did this occur?
(Check all that apply)

- Within the last month
- 2-6 months ago
- 6 months to a year ago
- 1-5 years ago
- More than 5 years ago

<<

>>

Work, Life, and Gender Survey

The next series of questions are about sex and gender.

What sex were you assigned at birth, on your original birth certificate?

- Female
- Male

Do you still identify with your sex assigned at birth?

- Yes
- No
- Sometimes

<<

>>

Work, Life, and Gender Survey

Which of the following best describes your current gender identity?
(Check all that apply)

- Female/woman
- Male/man
- Intersex
- Transgender: Female to male (FTM)
- Transgender: Male to female (MTF)
- Genderqueer
- None of the above

How would **you** describe your gender identity?

<<

>>

Work, Life, and Gender Survey

Do you think a person's gender identity stays the same throughout their life?

- Yes
- No
- Not sure

Do you think **your** gender identity stays the same throughout your life?

- Yes
- No
- Not sure

<<

>>

Work, Life, and Gender Survey

When you encounter new people, how important is it to you that they recognize your gender identity?

- Extremely Important
- Very Important
- Somewhat Important
- Not Very Important
- Not at all Important
- Not Thought About It Before

For those close to you, how important is it that they recognize your gender identity?

- Extremely Important
- Very Important
- Somewhat Important
- Not Very Important
- Not at all Important
- Not Thought About It Before

<<

>>

Work, Life, and Gender Survey

How satisfied or dissatisfied are you with your current gender presentation? (i.e. your hairstyle, dress, appearance)

- Very Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied
- Not Thought About It Before

<<

>>

Work, Life, and Gender Survey

Below are a series of lines with completely feminine at one end and completely masculine at the other. For each line, please move the bar to the place you think best describes the person specified:
(Unanswered rows remain gray)

| | Completely Feminine | Completely Masculine |
|-------------------------------------|---------------------|----------------------|
| Yourself | | |
| How you think others view you | | |
| Your spouse/partner (if applicable) | | |
| Society's ideal woman | | |
| Society's ideal man | | |

>>

GSPS1

Work, Life, and Gender Survey

Below are a series of lines with not at all masculine at one end and completely masculine at the other. For each line, please move each bar to the place you think best describes the person specified:

(Unanswered rows remain gray)

| | Not at all Masculine | Completely Masculine |
|----------------------------------|----------------------|----------------------|
| Yourself | | |
| How you think others view you | | |
| Your spouse/partner (Applicable) | | |
| Society's ideal woman | | |
| Society's ideal man | | |

Below are a series of lines with not at all feminine at one end and completely feminine at the other. For each line, please move each scale to the place you think best describes the person specified:

(Unanswered rows remain gray)

| | Not at all Feminine | Completely Feminine |
|----------------------------------|---------------------|---------------------|
| Yourself | | |
| How you think others view you | | |
| Your spouse/partner (Applicable) | | |
| Society's ideal woman | | |
| Society's ideal man | | |

GSPS2

← **Work, Life, and Gender Survey** →

Below are a series of lines with not at all masculine at one end and completely masculine at the other. For each line, please move each bar to the place you think best describes the person specified:
(Unanswered rows remain gray)

| | Not At All Masculine | Completely Masculine |
|-------------------------------------|----------------------|----------------------|
| Yourself | | |
| How you think others view you | | |
| Your spouse/partner (if applicable) | | |
| Society's ideal woman | | |
| Society's ideal man | | |

Top half of GSPS2

| | |
|---------------------|--|
| Society's ideal man |  |
|---------------------|--|

Below are a series of lines with not at all feminine at one end and completely feminine at the other. For each line, please move each scale to the place you think best describes the person specified:
(Unanswered rows remain gray)

Not At All Feminine Completely Feminine

| | |
|-------------------------------------|--|
| Yourself |  |
| How you think others view you |  |
| Your spouse/partner (if applicable) |  |
| Society's ideal woman |  |
| Society's ideal man |  |

[>>](#)

Bottom half of GSPS2

Work, Life, and Gender Survey

Which of the following do you do when you are given a survey that asks:

Are you:

- Male
- Female

- Answer Male
- Answer Female
- Leave the question blank and go on to the next question
- Leave the question blank and stop filling out the survey
- Other

<<

>>

Start of sex and gender questions

Work, Life, and Gender Survey

Which of the following do you do when you are given a survey that asks:

Are you:

- Male
- Female

- Answer Male
- Answer Female
- Leave the question blank and go on to the next question
- Leave the question blank and stop filling out the survey
- Other

Why would you skip the question?

<<

>>

Work, Life, and Gender Survey

Which of the following do you do when you are given a survey that asks:

Are you:

- Male
- Female

- Answer Male
- Answer Female
- Leave the question blank and go on to the next question
- Leave the question blank and stop filling out the survey
- Other

Why would you stop filling out the survey?

<<

>>

Work, Life, and Gender Survey

Which of the following do you do when you are given a survey that asks:

Are you:

- Male
- Female
- Other _____

- Answer Male
- Answer Female
- Answer Other
- Leave the question blank and go on to the next question
- Leave the question blank and stop filling out the survey
- Other

<<

>>

Work, Life, and Gender Survey

Which of the following do you do when you are given a survey that asks:

Are you:

- Male
- Female
- Other _____

- Answer Male
- Answer Female
- Answer Other
- Leave the question blank and go on to the next question
- Leave the question blank and stop filling out the survey
- Other

Click to write the question text

<<

>>

Work, Life, and Gender Survey

Which of the following do you do when you are given a survey that asks:

Are you:

- Male
- Female
- Other _____

- Answer Male
- Answer Female
- Answer Other
- Leave the question blank and go on to the next question
- Leave the question blank and stop filling out the survey
- Other

Why would you stop filling out the survey?

<<

>>

Work, Life, and Gender Survey

Do you think that the addition of "Other" to "Male" and "Female" is better, worse, or about the same as just "Male" and "Female"?

Are you:

- Male
 Female

Are you:

- Male
 Female
 Other _____

- Better
 Worse
 About the Same

Do you think that the addition of the open space to "Male" and "Female" is better, worse, or about the same as "Male," "Female," and "Other"?

Are you:

- Male
 Female
 Other _____

Are you:

- Male
 Female

- Better
 Worse
 About the Same

<<

>>

Work, Life, and Gender Survey

Based on where you usually live, please indicate whether each of the following offers legal protections based on gender identity.

| | Yes | No | Some | Not sure |
|-------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Your city | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Your state | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Your nation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

<<

>>

Work, Life, and Gender Survey

Please indicate how much you agree or disagree with the following:
In general, I think of myself as...

| | Strongly Agree | Agree | Disagree | Strongly Disagree |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| A competent person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A compassionate person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| An adaptable person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| An independent person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| An understanding person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Strongly Agree | Agree | Disagree | Strongly Disagree |
| A cheerful person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A tactful person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| An ambitious person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A forceful person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A warm person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | Strongly Agree | Agree | Disagree | Strongly Disagree |
| A sincere person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A friendly person | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A feminist | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

<<

>>

Work, Life, and Gender Survey

This is the last section of the survey. These questions are about yourself and your household.

What year were you born?

What is the highest level of education you have attained?

- No diploma
- High school diploma/GED
- Some college, but no degree
- Technical/Associate/Junior College (2yr, LPN)
- Bachelor's degree (4yr, BA, BS, RN)
- Graduate degree (Master's, PhD, Law, Medicine)

<<

>>

Start of demographic questions

Work, Life, and Gender Survey

How many adults (age 18 years or older) live in your household, including yourself?

Do you have children?

Yes

No

<<

>>

Work, Life, and Gender Survey

How many children ages 5 and younger live in your household?

How many children ages 6-12 live in your household?

How many children ages 13-18 live in your household?

<<

>>

Work, Life, and Gender Survey

Do you live in the USA?

- Yes
- No

<<

>>

Work, Life, and Gender Survey

What is the zip code of where you live?

How long have you lived at your primary residence?
(Please indicate months or years, as appropriate)

Months

Years

<<

>>

Work, Life, and Gender Survey

What country do you live in?

<<

>>

Work, Life, and Gender Survey

How long have you lived at your primary residence?
(Please indicate months or years, as appropriate)

Months

Years

<<

>>

Work, Life, and Gender Survey

What is your household yearly income?

- Under \$5,000
- \$5,000-9,999
- \$10,000-14,999
- \$15,000- 19,999
- \$20,000-24,999
- \$25,000-29,999
- \$30,000-39,999
- \$40,000-49,999
- \$50,000-59,999
- \$60,000-74,999
- \$75,000-99,999
- \$100,000 or above

<<

>>

Work, Life, and Gender Survey

Do you consider yourself to be of Hispanic or Latin descent?

- Yes
 No

What race or races do you consider yourself to be?
(Check all that apply)

- White
 Black or African American
 Asian
 American Indian or Alaskan Native
 Native Hawaiian or Other Pacific Islander
 Other race(s)

<<

>>

Work, Life, and Gender Survey

What is your current marital status?

- Married
- In a civil union/domestic partnership
- Not married, but living with a partner
- Divorced
- Widowed
- Separated
- Never married
- Other

<<

>>

Work, Life, and Gender Survey

How does your partner describe their gender identity?
(Check all that apply)

- Female/Woman
- Male/Man
- Intersex
- Transgender: Female to Male (FTM)
- Transgender: Male to Female (MTF)
- Other
- Not applicable

<<

>>

Work, Life, and Gender Survey

What is your sexual orientation?

- Asexual
- Bisexual
- Heterosexual/straight
- Homosexual/gay/lesbian
- Pansexual
- Queer
- Other

<<

>>

Work, Life, and Gender Survey

Do you think a person's sexual orientation stays the same throughout their life?

- Yes
- No
- Not sure

Do you think **your** sexual orientation stays the same throughout your life?

- Yes
- No
- Not sure

<<

>>

Work, Life, and Gender Survey

In general, how would you describe your political views?

- Very liberal
- Liberal
- Middle-of-the-road
- Conservative
- Very conservative
- Other

*Note: not added until 10/4 (mistake)

Work, Life, and Gender Survey

Do you consider yourself to be Protestant, Catholic, Jewish, Muslim, or something else?

- Protestant
- Catholic
- Jewish
- Muslim
- None (no religion)
- Other

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Work, Life, and Gender Survey

Within the Protestant faith, do you consider yourself to be:

- Evangelical Protestant
- Fundamentalist Protestant
- Liberal Protestant
- Mainline Protestant
- Other

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Work, Life, and Gender Survey

That is the end of this survey. Thank you for participating. If you have any comments you would like to share, please use the space below.

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Work, Life, and Gender Survey

Your response has been received and will be recorded.
Please wait while we finish processing your response.



[Click here if you are not automatically redirected.](#)

Contact: Alian Kasabian, aliank@unl.edu, (402) 472-5990

Survey Powered By [Qualtrics](#)

Work, Life, and Gender Survey

We thank you for your time spent taking this survey.
Your response has been recorded.

Contact: Alian Kasabian, aliank@unl.edu, (402) 472-5990

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Appendix H: Demographic Differences by Experimental Condition in the WLG

| Table H.1: Differences by Scale | | | |
|--|--------------|--------------|----------|
| | <u>GSPS1</u> | <u>GSPS2</u> | <i>p</i> |
| <i>Dependent Variables</i> | | | |
| Autonomy scale | 4.05 | 3.90 | |
| Promotion | 39.10% | 34.23% | |
| Gender harassment at work | 15.63% | 17.13% | |
| Discrimination avoidance tactics | 1.00 | 1.13 | |
| <i>Sex & Gender Variables</i> | | | |
| Sex (female=1) | 70.11% | 74.86% | |
| <i>Work Variables</i> | | | |
| Management/Professional | 75.66% | 67.22% | † |
| Work hours | 37.94 | 36.96 | |
| Has workplace power | 28.27% | 27.07% | |
| Satisfied with job | 78.13% | 73.48% | |
| Years on the job | 3.43 | 3.79 | |
| Possibility of future promotion | 34.90% | 31.67% | |
| Works full-time | 68.23% | 71.27% | |
| Percent female in occupation | 52.71 | 57.72 | * |
| <i>Demographic Variables</i> | | | |
| Age | 31.80 | 31.61 | |
| White (non-Hispanic) | 88.48% | 90.00% | |
| Marital: Never married | 32.09% | 38.60% | |
| Marital: Married | 62.57% | 52.63% | † |
| Marital: Previously married | 5.35% | 8.77% | |
| Has children | 21.99% | 24.31% | |
| Heterosexual | 63.87% | 66.29% | |
| Cisgender | 88.02% | 87.78% | |
| Education: Less than 4 year | 23.44% | 22.65% | |
| Education: Bachelor's degree | 36.46% | 38.67% | |
| Education: Graduate degree | 40.10% | 38.67% | |
| Income below \$25,000 a year | 19.15% | 14.12% | |
| Experienced harassment before | 71.88% | 75.14% | |

Appendix I: Models of Control Variables by Outcome from Ch. 4

| | Everyone (n=252) | | GSPS1 (n=127) | | GSPS1 (n=125) | |
|-----------------------------------|------------------|----------|---------------|----------|---------------|----------|
| | Model 1 | | Model 2 | | Model 3 | |
| | β | SE | β | SE | β | SE |
| Percent female in occupation | -0.01 | 0.00 * | 0.00 | 0.00 | -0.01 | 0.00 † |
| Management/Professional | 0.45 | 0.22 * | 0.12 | 0.28 | 0.77 | 0.36 * |
| Tech/Sales/Administrative Support | -0.09 | 0.24 | -0.41 | 0.33 | 0.30 | 0.38 |
| Work hours | 0.01 | 0.00 * | 0.01 | 0.01 | 0.02 | 0.01 * |
| Education: Less than 4 year | -0.02 | 0.15 | 0.04 | 0.21 | -0.18 | 0.22 |
| Education: Graduate degree | 0.10 | 0.13 | 0.02 | 0.18 | 0.12 | 0.19 |
| Has workplace power | -0.05 | 0.12 | 0.22 | 0.17 | -0.29 | 0.18 |
| Satisfied with job | 0.70 | 0.13 *** | 1.04 | 0.20 *** | 0.53 | 0.18 ** |
| Has children | 0.12 | 0.13 | -0.16 | 0.18 | 0.30 | 0.19 |
| Age | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| White (non-Hispanic) | -0.10 | 0.18 | -0.08 | 0.23 | -0.39 | 0.30 |
| Marital: Previously married | 0.02 | 0.21 | 0.21 | 0.38 | -0.12 | 0.26 |
| Marital: Never married | 0.27 | 0.14 * | 0.41 | 0.20 * | 0.26 | 0.19 |
| Income below \$25,000 a year | -0.40 | 0.17 * | -0.56 | 0.23 * | -0.21 | 0.28 |
| Intercept | 2.72 | 0.44 *** | 2.54 | 0.61 *** | 2.59 | 0.66 *** |
| R2 | 32.81% | | 37.48% | | 37.13% | |
| Adj R2 | 28.84% | | 29.67% | | 29.13% | |
| F-test | 8.27 *** | | 4.8 *** | | 4.64 *** | |
| N | 252 | | 127 | | 125 | |

| | Everyone (n=219) | | GSPS1 (n=107) | | GSPS2 (n=112) | |
|---|------------------|----------|---------------|---------|---------------|----------|
| | Model 1 | | Model 2 | | Model 3 | |
| | OR | SE | OR | SE | OR | SE |
| Heterosexual | 0.39 | 0.15 * | 0.17 | 0.12 ** | 0.54 | 0.29 |
| Cisgender | 7.62 | 6.12 * | 30.84 | 42.47 * | 3.73 | 4.27 |
| Percent female in occupation | 0.99 | 0.01 | 0.97 | 0.01 † | 0.99 | 0.01 |
| Income below \$25,000 a year | 0.88 | 0.55 | 3.10 | 2.97 | 0.21 | 0.26 |
| Experienced harassment before | 1.38 | 0.55 | 0.95 | 0.63 | 1.58 | 0.88 |
| Years on the job | 1.30 | 0.07 *** | 1.35 | 0.12 ** | 1.28 | 0.08 *** |
| Management/Professional | 0.26 | 0.20 † | 0.68 | 0.88 | 0.10 | 0.12 * |
| Tech/Sales/Administrative Support | 0.62 | 0.51 | 3.96 | 6.17 | 0.27 | 0.31 |
| Possibility of future promotion | 2.53 | 0.90 ** | 4.32 | 2.44 * | 2.02 | 1.03 |
| Works full-time | 2.24 | 1.11 | 8.68 | 8.15 * | 1.37 | 0.93 |
| White (non-Hispanic) | 0.45 | 0.26 | 0.24 | 0.20 † | 0.79 | 0.75 |
| Intercept | 0.19 | 0.23 | 0.03 | 0.07 | 0.42 | 0.79 |
| Pseudo R2 | 25% | | 35% | | 23.85% | |
| LR (chi2) | 73.52 *** | | 50.41 *** | | 35.09 *** | |
| † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ | | | | | | |

| | Everyone (n=186) | | GSPS1 (n=86) | | GSPS2 (n=100) | |
|---|------------------|--------|--------------|--------|---------------|--------|
| | Model 1 | | Model 2 | | Model 3 | |
| | OR | SE | OR | SE | OR | SE |
| Heterosexual | 0.42 | 0.18 * | 0.24 | 0.18 † | 0.45 | 0.26 |
| Percent female in occupation | 1.00 | 0.01 | 0.97 | 0.02 | 1.01 | 0.01 |
| Has workplace power | 1.12 | 0.55 | 0.78 | 0.75 | 1.53 | 0.96 |
| Age | 1.00 | 0.03 | 1.05 | 0.05 | 0.98 | 0.04 |
| Education: Less than 4 year | 0.78 | 0.40 | 0.22 | 0.24 | 1.95 | 1.29 |
| Education: Graduate degree | 0.52 | 0.27 | 0.44 | 0.37 | 0.73 | 0.52 |
| Marital: Previously married | 2.17 | 1.58 | 2.07 | 3.52 | 2.20 | 1.96 |
| Marital: Never married | 0.91 | 0.48 | 0.50 | 0.56 | 1.06 | 0.70 |
| White (non-Hispanic) | 1.32 | 0.90 | 0.70 | 0.73 | 3.36 | 3.87 |
| Income below \$25,000 a year | 1.88 | 0.99 | 4.83 | 5.27 | 1.90 | 1.38 |
| Has children | 1.24 | 0.62 | 1.00 | 0.92 | 1.34 | 0.86 |
| Management/Professional | 0.26 | 0.18 * | 0.15 | 0.18 | 0.16 | 0.19 |
| Tech/Sales/Administrative Support | 0.26 | 0.20 † | 0.65 | 0.84 | 0.08 | 0.09 * |
| Intercept | 1.2062 | 1.6516 | 2.55 | 5.64 | 0.73 | 1.53 |
| Pseudo R2 | 8.79% | | 19.40% | | 12.94% | |
| LR (chi2) | 15.81 | | 14.18 | | 13.63 | |
| † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ | | | | | | |

| | Everyone (n=251) | | GSPS1 (n=125) | | GSPS2 (n=126) | |
|-----------------------------------|------------------|----------|---------------|----------|---------------|---------|
| | Model 1 | | Model 2 | | Model 3 | |
| | IRR | SE | IRR | SE | IRR | SE |
| Heterosexual | 0.62 | 0.10 ** | 0.62 | 0.15 † | 0.60 | 0.14 * |
| Percent female in occupation | 1.01 | 0.00 † | 1.01 | 0.01 | 1.01 | 0.01 |
| Has workplace power | 0.74 | 0.14 | 0.85 | 0.24 | 0.69 | 0.17 |
| Experienced harassment before | 2.29 | 0.49 *** | 3.84 | 1.42 *** | 1.64 | 0.44 † |
| Age | 1.02 | 0.01 † | 1.03 | 0.02 † | 1.02 | 0.01 |
| Education: Less than 4 year | 0.99 | 0.22 | 0.68 | 0.25 | 1.24 | 0.34 |
| Education: Graduate degree | 0.90 | 0.17 | 1.25 | 0.33 | 0.69 | 0.19 |
| Marital: Previously married | 1.18 | 0.36 | 1.38 | 0.71 | 0.90 | 0.33 |
| Marital: Never married | 0.82 | 0.17 | 0.53 | 0.19 † | 1.07 | 0.28 |
| White (non-Hispanic) | 1.00 | 0.26 | 0.91 | 0.34 | 0.98 | 0.35 |
| Income below \$25,000 a year | 1.19 | 0.28 | 1.20 | 0.49 | 1.43 | 0.42 |
| Has children | 0.97 | 0.19 | 0.47 | 0.14 * | 1.43 | 0.35 |
| Management/Professional | 0.41 | 0.12 ** | 0.25 | 0.10 *** | 0.40 | 0.18 * |
| Tech/Sales/Administrative Support | 0.29 | 0.10 *** | 0.19 | 0.10 ** | 0.27 | 0.13 ** |
| Intercept | 0.70 | 0.43 | 0.53 | 0.50 | 1.08 | 0.87 |
| Pseudo R2 | 5.57% | | 11.55% | | 6.49% | |
| LR (chi2) | 39.44 *** | | 37.83 *** | | 24.52 * | |
| LR test of alpha | 17.58 *** | | 3.97 * | | 5.29 * | |

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$