© 2015

Vincent Ciaccio

ALL RIGHTS RESERVED

STEREOTYPES AND PARENTING STATUS: A COMPARISON OF PARENTS AND THE CHILDLESS-BY-CHOICE

by

VINCENT CIACCIO

A dissertation submitted to the
Graduate School-New Brunswick
Rutgers, The State University of New Jersey
In partial fulfillment of the requirements

For the degree of

Doctor of Philosophy

Graduate Program in Psychology

Written under the direction of

Prof. Richard J. Contrada

And approved by

New Brunswick, New Jersey

October, 2015

ABSTRACT OF THE DISSERTATION

Stereotypes and Parenting Status: A Comparison of Parents and the Childless-by-

Choice

By VINCENT CIACCIO

Dissertation Director:

Richard J. Contrada, Ph.D.

Academic research on parenting status stereotypes has not focused on the childlessby-choice. Two main purposes of my dissertation were to determine the descriptive stereotypes of the childless-by-choice and to probe the possible ramifications of these stereotypes for social perceptions in an employment context. The first purpose was addressed in two studies, one using a free response method, and one using rating scales. Free response results suggested that stereotypes of parents were communal in nature, while stereotypes of the childless-by-choice were agentic. Rating scale results were similar, as mothers were stereotyped as possessing higher levels of female prescriptive traits compared to childless-by-choice women, and parents were perceived as warmer than the childless-by-choice. Furthermore, childless-by-choice women scored higher than mothers in terms of being independent and non-communal, while fathers scored higher than childless-by-choice men on family orientation. To address my second purpose, participants read a vignette depicting a female (Study 3) or male (Study 4) target person who was either childless, childless-by-choice, or a parent, and employed as either a teacher or business consultant. Participants rated targets on attributes drawn from Study 2 and items reflecting prejudice and discriminatory intentions. Results suggested occupation stereotypes superseded certain parental status stereotypes. Furthermore,

whereas parents were liked more than the childless-by-choice, parenting status groups did not differ on measures of respect, value as an employee, or deserved salary. The four studies are discussed in terms of theoretical and practical implications of stereotypes associated with parenting status.

Acknowledgements

This dissertation, and indeed my successful progress and completion of my doctoral degree, would not have been possible without the support and guidance of my adviser, Dr. Richard Contrada. In and of itself, the amount I have learned over the years from our conversations and from his advice and critiques of my research projects has earned my lasting respect and appreciation. Beyond that, however, at the time in which my academic progress was at its most critical juncture, his sacrifice of time and energy enabled me to continue moving forward. I am forever indebted to him, not only for what I have learned in terms of academics, but as a model of dedication and generosity.

In addition, I would like to thank the members of my dissertation committee, as well as other members of the Rutgers University Psychology Department. Dr. Lee Jussim, Dr. David Wilder, and Dr. Kristen Springer provided invaluable guidance and feedback throughout the many phases of the dissertation process. Dr. Sean Stevens and Dr. Corinne Bhagwat Moss-Racusin were sources of sound advice, from my first days in the program through the last. My lab mate and office mate Jeremy Engelberg helped me keep perspective and provided a useful critique of my practice oral defense. Dr. Danielle Young was a constant source of good advice and encouragement. Finally, Dr. Elizabeth Salib Molinari, who has been a colleague and friend since we met on Interview Day, helped me clarify my goals for Studies 3 and 4.

While my pursuit of a doctorate in psychology was the result of many causes, four individuals helped lead me to that path. Mr. Anthony Barricelli, first taught me to look at things scientifically. Dr. Howard Moskowitz, demonstrated true enthusiasm for the research process and opened my eyes to the world of psychology at work outside of

academia. Finally, Dr. Kent Higgins broadened my understanding of psychological research, and taught me a great deal about being a boss and being a mentor.

My road to a Ph.D. had many challenges, both predictable and not, and I would not reached the finish line without the love and support of my family. Ellen and Roy Keuling always had faith in me, even when my faith in myself wavered, and I was always able to count on them. Kevin Keuling, made sure I took breaks to catch my breath every now and then. Br. James K. Devlin helped me see all sides of the graduate school process and academia, and proofread and critiqued of a near-final draft of this document. My mother, Angelica Ciaccio, did everything she could to get me to where I am, and celebrated each of my successes and persevered with me through each of my setbacks. Most of all, I would like to thank my wife Laura Thérèse Ciaccio, to whom this dissertation is dedicated. I cannot overstate the patience, love, and sacrifice she has demonstrated during the past few years, nor can I overstate what it has meant to me.

Table of Contents

Abstract of the Dissertation	ii
Acknowledgements	iv
Table of Contents	vi
List of Tables	vii
List of Figures	x
List of Appendices	xi
Introduction and General Overview	1
Studies 1 and 2: An Overview	16
Study 1	
Study 2	24
Studies 3 and 4: An Overview	45
Study 3	50
Study 4	
General Discussion	
Appendices	97
References	173

List of Tables

Table 1: Study 1 Most Frequent Free Response Items Per Target Group
Table 2: Study 2 Cronbach's Alpha Scores for A Priori Scales
Table 3: Study 2 Correlation Between Scale Scores for the Mothers Target Group 100
Table 4: Study 2 Correlation Between Scale Scores for the Fathers Target Group 101
Table 5: Study 2 Correlation Between Scale Scores for the Childless Women Target
Group
Table 6: Study 2 Correlation Between Scale Scores for the Childless Men Target
Group
Table 7: Study 2 Correlation Between Scale Scores for the Childless-by-Choice Women
Target Group
Table 8: Study 2 Correlation between scale scores for the Childless-by- Choice Men
Target Group
Table 9: Study 2: Marginal Means, Standard Deviations, ANOVA Main Effects, and
Tukey's HSD Results for A Priori Scales
Table 10: Study 2: Cell Means, Standard Deviations, ANOVA Interaction Effects and
Simple Effects, and Fisher's LSD Results for A Priori Scales
Table 11: Study 2: Items and Function Loadings for Empirically-Derived Scales: Female
Target Groups
Table 12: Study 2: Cronbach's Alphas for Empirically-Derived Scales: Female Target
Groups
Table 13: Study 2: Correlations Between A Priori Scale Scores and Empirically-Derived
Scale Scores: Female Target Groups

Table 14: Study 2: Means, Standard Deviations, and Hypothesis Testing for Empirically-
Derived Scales: Female Target Groups
Table 15: Study 2: Items and Function Loadings for Empirically-Derived Scales: Male
Target Groups
Table 16: Study 2: Cronbach's Alphas for Empirically-Derived Scales: Male Target
Groups
Table 17: Study 2: Correlations Between A Priori Scale Scores and Empirically-Derived
Scale Scores: Male Target Groups
Table 18: Study 2: Means, Standard Deviations, and Hypothesis Testing for Empirically-
Derived Scales: Male Target Groups
Table 19: Study 3: Means, Standard Deviations, Cohen's <i>d</i> , and <i>t</i> Results for Occupation
Items
Table 20: Study 3: Cronbach's Alpha, Means, and Standard Deviations for Personality
Attributes, Stereotype Content Model, Liked, and Respected Scales
Table 21: Study 3: Correlations for Personality Attributes, Stereotype Content Model,
Liked, and Respected Scales
Table 22: Study 3: Marginal Means, Standard Deviations, ANOVA Main Effects, and
Tukey's HSD Results for A Priori Scales
Table 23: Study 3: Cell Means, Standard Deviations, Interaction Effects and Simple
Effects, and Fisher's LSD Results for A Priori Scales
Table 24: Study 3: Marginal Means, Standard Deviations, ANOVA Main Effects, and
Tukey's HSD Results for Employee Measures 121

Table 25: Study 3: Cell Means, Standard Deviations, Interaction Effects and Simple
Effects, and Fisher's LSD Results for Employee Measures
Table 26: Study 3: Means, Standard Deviations, and One-Way ANOVAs for Salary 123
Table 27: Study 4: Means, Standard Deviations, Cohen's <i>d</i> , and <i>t</i> results for Occupation
Items
Table 28: Study 4: Cronbach's Alpha, Means, and Standard Deviations for Personality
Attribute, Stereotype Content Model, Liked, and Respected Scales
Table 29: Study 4: Correlations for Personality Attributes, Stereotype Content Model,
Liked, and Respected Scales
Table 30: Study 4: Marginal Means, Standard Deviations, ANOVA Main Effects, and
Tukey's HSD Results for A Priori Scales
Table 31: Study 4: Cell Means, Standard Deviations, Interaction Effects and Simple
Effects, and Fisher's LSD Results for A Priori Scales
Table 32: Study 4: Marginal Means, Standard Deviations, ANOVA Main Effects, and
Tukey's HSD Results for Employee Measures
Table 33: Study 4: Cell Means, Standard Deviations, Interaction Effects and Simple
Effects, and Fisher's LSD Results for Employee Measures
Table 34: Study 4: Means, Standard Deviations, and One-Way ANOVAs for Salary 131

List of Figures

Figure 1: Discriminant Function Analysis Centroid Map For Female Target Groups in	ı
Study 2	132
Figure 1: Discriminant Function Analysis Centroid Map For Male Target Groups in	
Study 2	133

List of Appendices

Appendix A: Table 1 Through Table 34	97
Appendix B: Figure 1 Through Figure 2	132
Appendix C: Study 1 Instructions, Group Names and Group Definitions	134
Appendix D: Study 1 Debriefing Page	136
Appendix E: Study 1 Demographics	137
Appendix F: Study 2 Instructions, Group Names and Group Definitions	140
Appendix G: Study 2 Rating Scale Item List	141
Appendix H: Study 2 Composition of A Priori Scales	145
Appendix I: Study 2 Composition of Original Prescriptive and Proscriptive	
Categories	146
Appendix J: Study 2 Debriefing Page	148
Appendix K: Study 2 Demographics	149
Appendix L: Studies 3 and 4 Kindergarten Teacher Instructions and Employer	
Profile	152
Appendix M: Studies 3 and 4 Kindergarten Teacher Employee Profile	153
Appendix N: Studies 3 and 4 Consultant Instructions and Employer Profile	154
Appendix O: Studies 3 and 4 Consultant Employee Profile	155
Appendix P: Studies 3 and 4 Instructions for Personality Item Ratings and Scale	156
Appendix Q: Studies 3 and 4 Personality Rating Scale Item List	157
Appendix R: Studies 3 and 4 Additional Scales and Measures	160
Appendix S: Studies 3 and 4 Industry-Related Items	163
Appendix T: Studies 3 and 4 Manipulation Check Items	164

Appendix U: Studies 3 and 4 Debriefing page	165
Appendix V: Study 3 Demographics	166
Appendix W: Study 4 Demographics	170

Stereotypes and Parenting Status: A Comparison of Parents and the Childless-by-Choice

Gender and parenting status have been a focus of stereotype research for many decades. Gender, in particular, has received extensive attention. Despite cultural shifts that have occurred over time, stereotypes about men and women in the United States have been surprisingly consistent (Abate & Berrien, 1967; Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Prentice & Carranza, 2002; Spence & Buckner, 2000). In general, stereotypes about women align on a dimension of communality, which include elements such as warmth, kindness, and interest in children. In contrast, stereotypes about men focus on agentic qualities, such as independence, career-focus, and confidence. These dimensions apply not only to how men and women are thought to be, but also to how society expects them to be, both descriptively and prescriptively (Prentice & Carranza, 2002).

Men and women can, and do, fulfill or violate these expectations. For example, motherhood is the quintessential nurturing role and, as such, it embodies society's expectations of what a woman should be. It has such a high level of importance that some have considered motherhood to be a societal "mandate" (Russo, 1976). Childless-by-choice women, in contrast, actively reject this avenue of prescriptive fulfillment.

Possibly as a result, childless-by-choice women are viewed as possessing lower levels of communal traits such as sensitivity and being loving (Jamison, Franzini, & Kaplan, 1979). Instead, childless-by-choice women have been stereotyped as possessing higher levels of agentic qualities, especially in terms of career drive and independence (Callan, 1985; Park, 2002; Shields & Cooper, 1983). In addition to a perceived lack of nurturing traits and a perceived possession of agentic traits, childless-by-choice women are

perceived as being less typical of American women as compared to mothers (Jamison, et al., 1979). This combination of traits suggests that childless-by-choice women may be a perceived subtype of women. Subtyping is a response to a subset of a group, in which that subset disconfirms key stereotypes of the main group and forms a smaller and more distinct subcategory (Richards & Hewstone, 2001).

The pattern of stereotypes of childless-by-choice men and fathers differs from that of their female counterparts. While men in general are stereotyped as possessing agentic traits more so than communal traits, fathers are perceived as being high in both agency and communality (Cuddy, Fiske, & Glick, 2004; Fuegen, Biernat, Haines, & Deaux, 2004). However, the content of stereotypes of childless-by-choice men is unclear. While some research has found it to include agentic traits such as career orientation (Callan, 1985), other research has found childless-by-choice men to be perceived as less agentic than fathers (LaMastro, 2001; Lampman & Dowling-Guyer, 1995).

I had two main goals for this dissertation. First, I sought to determine how the content of stereotypes differs between men and women of different parenting statuses. This was achieved by two studies using complementary, open-ended and closed-ended methodologies. Second, I conducted two additional studies to determine if the stereotype content of the target groups, gleaned in part from the first two studies, resulted in prejudice in a vignette study analog to a human resources setting. Following a review of the relevant literature, I report these four studies and then discuss their implications for understanding the content and impact of stereotypes of the childless-by-choice.

Gender and parenthood stereotypes. The study of the content of stereotypes of men and women has a history going back decades. In one of the early papers on the subject, Sherriffs and McKee (1957) had undergraduate men and women complete an adjective checklist as to what qualities were characteristic of men and women. On an item-by-item level, male and female subjects did not completely agree on the qualities that each gender generally possesses. Conceptually, however, both genders attributed agentic qualities to men, and communal qualities to women. Agentic qualities are ones that emphasize an individual's influence, control or mastery of the self, other people, or the environment. In contrast, communal qualities are ones that connect an individual with one or more others (Horowitz et al., 2006). For example, subjects of both genders considered men to be logical, clear-thinking, ambitious, individualistic, dominant, independent, boastful, and outspoken. Male subjects also considered men to be determined, capable, intelligent, and opinionated, while female subjects considered men to be persistent and uninhibited. These qualities, whether perceived by one or both genders, are agentic in nature. In contrast, male and female subjects viewed women as tactful, pleasant, gentle, warm, kind, sentimental, lovable, emotional, and submissive. Female subjects also considered women to be patient, helpful, trusting, inhibited, and confused, whereas male subjects considered women to be cheerful, suggestible, weak, and timid. These attributes, by and large, can be classified as communal. Furthermore, in addition to the terms attributed to each gender, it is important to note the terms that were not. Specifically, men were not stereotyped as possessing communal qualities, and women were not stereotyped as possessing agentic qualities. A clear pattern of

stereotypes emerged between the sexes, in which gender was linked exclusively to either agency or communality.

Close to two decades later, Williams and Bennett (1975) conducted a study to determine the content of stereotypes for men and women, which also used an adjective checklist. In this study, undergraduates were asked to label each of 300 adjectives as being more associated with men, or more associated with women, or to indicate they were unable to decide. Using a minimum consensus of 75% of male subjects and 75% of female subjects for classification of an adjective as a sex stereotype, 33 adjectives were associated with men, and 30 adjectives were associated with women. Consistent with Sherriffs and McKee (1957), attributes ascribed to men were generally agentic in nature, and included being assertive, adventurous, aggressive, confident, dominant, independent, self-confident, and unemotional. Items reflecting nurturance or communality were not attributed to men. Attributes ascribed to women were generally communal in nature, and included being affectionate, dependent, emotional, gentle, and sensitive. Items reflecting agency were not found to be stereotypical of women. Despite societal and cultural change that included the advent of second-wave feminism, these studies suggest the stereotypes of men and women remained fundamentally unchanged between the time of Sherriffs and McKee's (1957) study and that of Williams and Bennett (1975).

Further evidence of this pattern of sex stereotypes was found by Sandra Bem in the course of creating the Bem Sex Role Inventory (1974). The BSRI was designed to measure the participant's self-concept in terms of masculinity, femininity, and androgyny. The process of selecting items for this instrument involved undergraduates rating 400 personality characteristics as to how desirable each item was for women (or

men) in American society. Items that were judged by the male and female subjects to be more desirable for men or women were included in the BSRI as part of the masculine and feminine scales, respectively. The items in the masculinity scale included being aggressive, ambitious, assertive, dominant, individualistic, independent, and having leadership abilities. Items in the femininity scale included being affectionate, gentle, tender, warm, sensitive to the needs of others, and loving children. In short, the items of the masculinity scale were agentic, and not communal, in nature, and the items of the femininity scale were communal, and not agentic, in nature.

More recently, Prentice and Carranza (2002) conducted a series of studies that sought to determine the prescriptive and proscriptive stereotypes for men and women. In the course of this work, the content of descriptive stereotypes for men and women was also researched. Undergraduates rated a number of items, many of which were taken from Bem's (1974) work on the BSRI, as to how typical and how desirable each item was for men, women, and Americans in general. The typicality and desirability of traits for each gender had a very high amount of overlap, with communal traits associated with women, and agentic traits associated with men. Prentice and Carranza's (2002) study factors heavily into my dissertation, specifically in Study 2. As such, it will be discussed more in depth in that section.

Taken together, research suggests that the stereotypes of the agentic man and the communal woman have remained remarkably consistent over the past half-century.

Despite this, the status of women has changed markedly over that time. In 1970, women earned approximately 43% of undergraduate degrees, 39% of master's degrees, and 11% of doctoral degrees. As of 2010, women earned approximately 60% of undergraduate

degrees, 60% of master's degrees, and 52% of doctoral degrees in the United States (Aud et al., 2012; United States Department of Education, 2011). They currently comprise 47 percent of the total U.S. labor force, including 51.5% of management, professional, and related occupations (United States Department of Labor, 2010). Women have also been represented in the political arena, including high-status positions as United States Senators, Presidential Cabinet Members, and Supreme Court Justices. As women have demonstrated agency, men have likewise demonstrated communality. Specifically, they have increased their share of domestic responsibilities, including housework and childcare responsibilities (Parker & Wang, 2013).

Even as women have achieved in higher education, the workforce, and in politics, and men have increased their focus on childcare responsibilities, stereotypes about men and women have not mirrored this change. Women continue to be stereotyped as being family and child-oriented, and American society expects women to possess these qualities. Men continue to be stereotyped as being independent and career-focused, and American society likewise expects men to focus on their careers (Prentice & Carranza, 2002). One possible explanation for the seemingly immutable difference in gender stereotypes lies in biosocial role theory (Wood & Eagly, 2002). Throughout time, women, by virtue of biology, have been uniquely capable of bearing new human life, and until the advent of artificial formula, were necessary to sustain those lives past infancy. This child-rearing and family-oriented role, over time, presumably contributed to stereotypes of women as nurturers. Men's responsibilities were based outside of the home (e.g., hunting), and required independence and assertiveness. While modern society is structured quite differently than the world of our ancestors, some biological

factors (e.g., pregnancy and childbirth), and the associated vestigial social role expectations (Eagly & Steffen, 1984), remain.

For women, as noted earlier, this focus on nurturing is reflected in what has been referred to as the "motherhood mandate" (Russo, 1976). In this view, women's key role and responsibility is to have children, and to be a "good" mother. While this does not preclude other roles or interests, it requires those other roles to be deprioritized whenever role conflicts arise with the needs of the children. Men, in contrast, are not restricted in the same fashion; their "mandate" is rooted in being a breadwinner (Riggs, 1997). This may be seen as a reflection of prescriptive stereotypes for men. A man is prescribed to be business-minded and dependable, and fatherhood mandates financial responsibility for providing for his dependents. In a study of social role theory, Riggs (1997) used vignettes to describe mothers and fathers who were either employed, or left employment to stay home with a young child. The motivations for employment were listed as personal fulfillment or financial necessity. Subjects indicated similar levels of approval for mothers who left personally fulfilling employment as for those who left financially necessary jobs. In contrast, men who were portrayed as leaving financially necessary jobs received significantly less approval from subjects, as compared to jobs that were simply personally fulfilling.

These imperatives are reflected in the stereotype content of mothers and fathers.

Ganong and Coleman (1995) found that, compared to women in general, married mothers are viewed as being more likely to possess communal traits, and are more familyoriented, but no more or less career-oriented. Stepmothers, divorced mothers, and nevermarried mothers, in contrast, are perceived as having lower levels of communal traits,

and are viewed as not as skilled in child-rearing as married mothers. This suggests that married mothers are the "gold standard" for mothers, and while the other categories of mothers are still fulfilling their imperative role, they are not perceived as doing it as well. As Ganong and Coleman's (1995) study did not include a generic "mothers" category, however, it is not possible to be certain of this.

Troilo and Coleman (2008) conducted a study to determine the stereotype content of eight different types of fathers, including fathers in general and married fathers. For each father group, subjects were given a sheet with 77 items, and asked to list the percentage of that subgroup of fathers that they believe was represented by each item. Married fathers only differed from fathers in general on three items, with married fathers having lower percentages of being confused, hated, and insensitive. Other father subgroups differed from fathers on a greater number of items, ranging from five items (divorced residential fathers) to 56 items (never-married fathers). While this study included fathers in general as a target group, it did not include men in general. It is therefore not possible, using this study, to determine how fathers differ from non-fathers in terms of stereotype content. Biosocial role theory would suggest that fathers would be perceived as more nurturing than men in general, as fatherhood provides opportunity for childcare and a focus on the family as a whole. There is evidence that fathers benefit from a perceived increase in communal qualities compared to generic men (Cuddy, et al., 2004). As men are typically stereotyped as agentic rather than communal, fathers may be a subtype of men.

The studies conducted by Ganong and Coleman (1995) and Troilo and Coleman (2008) concerned stereotype content of subtypes of parent target groups, utilizing

multiple methods of generating and evaluating potentially stereotypic traits. In addition, Ganong and Coleman's study drew comparisons between mother subtypes and women in general. Not present in either study, however, was a comparison with childless or childless-by-choice men or women. To date, no study has comprehensively examined how stereotype content differs between those who have children, and those who have chosen not to have children.

Childless-by-choice stereotypes. The childless-by-choice, sometimes referred to as the "childfree," have made a conscious decision to forgo parenthood. Research explicitly addressing stereotypes of childless-by-choice men and women as social categories, and perception of individuals portrayed as childless-by-choice, began relatively recently. In 1973, J.E. Veevers published a paper on the research relating to the childless-by-choice, and noted that "[n]o empirical work has been done concerning the existence of a stereotype of childless couples," and no research was cited that concerned stereotypes of childless-by-choice women or childless-by-choice men. Since then, a relatively small number of studies have looked at the content of stereotypes of childless-by-choice men, women, and couples. A study by Polit (1978) used scales based on items from an adjective checklist to determine the content of stereotypes of men and women of different family sizes who were represented in vignettes. Included in the list of targets were parents with one, two, four, or eight children, as well as the voluntarily and involuntarily childless. Men and women who were portrayed as voluntarily childless were found to be rated lower than the other groups in terms of nurturance and highest in terms of autonomy.

Jamison et al. (1979) assessed the perceptions of men and women portrayed in vignettes as being childless-by-choice or a parent of two children, in two studies. In the first study, undergraduates responded to twenty-two questions regarding the target; these included items related to personality traits, family relationships, and demographics. The female childless-by-choice target was perceived as less sensitive, less loving, less typical an American woman, less happy, less well adjusted, and more likely to be a member of a women's liberation group than the mother target. In the second study, which used similar methods to Jamison et al.'s first study but included male targets, the female childless-by-choice target was found to be more selfish, more atypical, and less happy than the mother target. The childless-by-choice male target was found to be more selfish, more atypical, less sensitive, and less loving, than the father target. Taken together, the male and female childless-by-choice targets were perceived as less nurturing than their parent counterparts.

Using a multidimensional scaling technique, Callan (1985) found childless-by-choice men and women were rated highest on materialism, individualism, selfishness, and career orientation, while being the opposite of likeable, emotionally mature, devoted, loving, liking children, having a happy marriage, natural, and restricted. In addition, childless-by-choice men and women occupied the same multidimensional space, in contrast to fathers and mothers with various numbers of children and to infertile men and women who were or were not seeking in vitro fertilization. Results of this study are similar to a previous study conducted by Callan (1983) in which perceptions of childless-by-choice wives were contrasted with those of wives who were mothers. Undergraduates

perceived childless-by-choice women as being non-conforming, self-fulfilled, materialistic, intelligent, and individualistic.

Not all prior studies have found the childless-by-choice to be perceived as high on agentic traits and low on communal ones. Lampman and Dowling-Guyer (1995) conducted a study in which undergraduates read vignettes about couples who were described as childless-by-choice, infertile, or parents of two children. Perceptions of the members of the couples were assessed via 26 bipolar scales, which were combined to form measures of drive (which contained agentic traits) and caring (which contained communal traits). Childless-by-choice men and childless-by-choice women had lower scores on both caring and drive, as compared to their infertile and parent counterparts.

LaMastro (2001) found somewhat similar results in her study of perceptions of couples who varied by parenting status. Consistent with prior research, childless-by-choice men and women were perceived as being lower in warmth than fathers and mothers, respectfully. While childless-by-choice women were not perceived as possessing a different level of agentic traits than mothers, childless-by-choice men were perceived as being less agentic than fathers.

While the content of stereotypes of the childless-by-choice has varied among studies, one study found no stereotypes of childless-by-choice women at all. Shields and Cooper (1983) conducted a study in which undergraduates read a vignette about a woman who was either happily or unhappily pregnant, or childless-by-choice. An adjective checklist was then used to determine the content of the stereotypes of the target women. In this study, an adjective was considered to be stereotypical of the group if it was

selected for one group more than the others by a margin of 30% or greater. Using this methodology, no attributes were found to be stereotypical of childless-by-choice women.

On the whole, existing research suggests that childless-by-choice women and men are stereotyped as possessing a low level of communal traits, including a lack of lovingness, likeability, devotion, and affinity for children. Findings have been more inconsistent in regards to agentic traits. This pattern may have implications for how childless-by-choice women and men fit within the context of more general models that concern gender and gender stereotyping.

For example, under Bem's (1974) model of masculinity, femininity, and psychological androgyny, an individual can be perceived (or self-evaluate) as being high or low in one or both dimension. As prior research has generally found childless-by-choice men and women to be perceived as relatively low in communality and nurturing traits, they may be perceived as being low in femininity. This may have ramifications, especially for childless-by-choice women, as they would be perceived as violating gender norms. Additionally, as childless-by-choice women have been perceived as possessing relatively high levels of agentic traits, they may be perceived as more masculine as compared to mothers and women in general.

Similarly, using the dimensions of the Stereotype Content Model (Fiske, Cuddy, Glick, & Xu, 2002), the childless-by-choice may be perceived as having less warmth, and either more or less competence relative to parents and men and women in general. The Stereotype Content Model has been used to evaluate various types of groups, including ones based on race (e.g., Fiske, et al., 2002), gender subgroups (e.g., Eckes, 2002), and immigration status (e.g., Lee & Fiske, 2002). Based on this model, a group that is

stereotyped as low in warmth would be viewed with envy or jealousy if high in competence, or with contempt and disgust if low in competence. Prejudice against childless-by-choice individuals may attach based on these factors. Accordingly, and as discussed below, the warmth and competence scales from the Stereotype Content Model are included in Studies 2, 3, and 4 of my dissertation.

Stereotype content of childless-by-choice women and men may also be viewed within the context of male and female prescriptions and proscriptions. Based on the findings of Prentice and Carranza (2002), childless-by-choice women and men may be perceived as not fulfilling female prescriptions, which are communal in nature, while fulfilling male prescriptions, which are agentic in nature. As noted above, items derived from Prentice and Carranza's (2002) study of male and female prescriptions and proscriptions (and by proxy, items derived from Bem's (1974) work on psychological androgyny) feature prominently in Studies 2, 3, and 4 of this dissertation.

In summary, the overall stereotype content of childless-by-choice men and women is inconclusive. Much of the literature is potentially outdated, having been conducted in the 1970s and 1980s, which leaves open the possibility that stereotypes have changed. The studies as a whole have not been as comprehensive as the research on the stereotypes of parents or men and women in general, as they used relatively few items to determine the content of the stereotypes. Beyond that, in contrast to literature on how stereotypes of generic men and women differ, or fathers and mothers differ, it remains unknown how much, if at all, stereotypes of childless-by-choice men and women differ. Studies 1 and 2 of my dissertation concern determining the content of stereotypes for these groups.

Conceptual and methodological issues in stereotype research. Despite the fact that stereotype research has been ongoing since Walter Lippmann (1922) first used the term "stereotype" nearly a century ago, there has yet to be a universally agreed upon definition of what a stereotype is. Most definitions follow a theme that centers upon beliefs about attributes or behaviors that are characteristic of groups of people (Abate & Berrien, 1967; Hilton & von Hippel, 1996; Katz & Braly, 1933). For the purposes of my dissertation, I will be using the definition of stereotypes given by Ashmore and del Boca (1979) that follows along those lines: "a structured set of beliefs about the personal attributes of a group of people." Furthermore, this dissertation focuses primarily on the personality stereotypes of groups differing by gender and parenting status. I elected not to investigate other categories of stereotypes, such as physical or behavioral stereotypes, for these groups, as neither prior research nor Study 1 of this dissertation suggested that such stereotypes differ across parenting statuses within each gender.

Just as personality stereotypes are an element within the category of stereotypes, stereotypes also fit into a larger context. In the multimodal model of attitudes, attitudinal responding and attitude formation comprise three parts: cognitive, affective, and behavioral (Eagly & Chaiken, 1993). Under this model, stereotypes represent the cognitive aspect, while prejudice (the affective component) and discrimination (the behavioral component) round out the three. Studies 3 and 4 of this dissertation will measure prejudice as it relates to groups based on target gender and parenting status, as well as other measures including judgments and beliefs that may influence the probability of discrimination.

Dissertation rationale and purposes. My dissertation may be valuable for a number of reasons. First, Studies 1 and 2 provide current data as to the content of stereotypes of mothers, fathers, childless-by-choice women, and childless-by-choice men. Since stereotypes are potentially subject to change over time, these studies may help determine if changes have taken place. Second, I believe my methodology in determining the content of stereotypes for the childless-by-choice is more comprehensive than previous research in this area. Finally, Studies 3 and 4 addresses a gap in the literature in terms of gender, parenting status, and employment research by including childless-by-choice women and men. This literature will be covered in the overview of Studies 3 and 4.

The specific purposes of my dissertation are to determine how stereotypes differ between parents, childless, and childless-by-choice men and women, to determine how these stereotypes attach to individuals of these target groups, and to determine the effect there stereotypes have on evaluations of those individuals. In Study 1, participants used free response to list stereotypes they believe the six target groups possess. The most frequently occurring items were used subsequently in Study 2, in which participants rated the degree to which they believed these items, as well as those from previous relevant literature, were characteristic of the six target groups. Studies 3 and 4 used employee evaluation scenarios to determine how parenting status and job type impact evaluation of individuals within each target gender, with a focus on whether the stereotypes of the target groups result in prejudice, beliefs, and judgments that might be expected to promote discrimination. This dissertation ends with a discussion of the significance of the results and future directions for research.

Studies 1 and 2: An Overview

In order to determine the content of stereotypes, researchers have made use of various methodologies, including free response, adjective checklists, and rating scales. In free response, subjects are asked to write down a number of qualities and/or behaviors that are stereotypical of the group of interest. The advantages of this method include its being open-ended, and therefore subject-driven, and eliciting the stereotypes that are brought most easily to the mind of the subjects. Disadvantages include not knowing how strong, or representative, each stereotype is for the target group of interest, what other stereotypes might emerge if the subject were given more time to answer or more space to include additional attributes, and what stereotypes subjects might endorse once they are led to consider them.

In an adjective checklist method, a list of attributes is presented to the subjects, and stereotypes they feel are relevant to the target group are checked off. This method has a long history of use in stereotype research in areas including race/nationality/ ethnicity (Devine & Elliot, 1995; Katz & Braly, 1933), occupation (Feldman, 1972), and sexual orientation (Staats, 1978). This has the advantage of allowing a subject to indicate his or her belief in the applicability of a stereotype to a particular group, without having to generate that stereotype spontaneously. Adjective checklists do have important disadvantages, however. The primary disadvantage is a reliance on a pre-structured set of attributes. A set of attributes may be missing items potentially applicable to the target group, or may include items that are out of date. Additionally, while checklists capture reported presence or absence of a stereotype, they do not indicate the level of strength of that stereotype.

Rating scales are similar to checklists, in that they include predetermined lists of attributes; rather than asking about the presence or absence of those qualities in the group of interest, however, they ask how stereotypical (or counter-stereotypical) those qualities are for the target group. While this improves upon checklists by indicating the strength of the stereotypes, it retains the disadvantage of using predetermined lists that may be missing relevant attributes that could emerge using free response.

One strategy to maximizing benefits and minimizing disadvantages that come with any one approach to stereotype measurement is to ascertain stereotype content using a method that includes both a free response element and a rating element (e.g., Madon, 1997). In my dissertation, I first used a free response method in Study 1. The items were then tallied, and most frequently listed items per target group were selected to be used in Study 2. Study 2 used a rating scale method, which in addition to including items from Study 1, also included items that were used in previous research concerning gender and parenting status. It was expected that the use of these two complementary methods would refine and elaborate upon our knowledge of stereotypes related to male and female parenting statuses, and do so in a way that would have some generalizability beyond any single assessment approach.

Study 1

The aim of Study 1 was to determine the nature of stereotypes about fathers, mothers, childless men and women, and childless-by-choice men and women. This study was fielded anonymously online, and utilized a free response method. Participants, who were recruited from Mechanical Turk, provided responses for each of the six target groups, as well as for filler groups that were intended to obfuscate the specific purpose of the study. The order of the groups was randomized for each subject. The responses for each group were combined, and the most frequently occurring items for each group were included in Study 2.

Participants. Participants were 121 "workers" (78 female, 1 gender queer) recruited via Amazon's Mechanical Turk, a web-based data collection source.

Mechanical Turk has been found to provide more representative of the national population than typical undergraduate samples (Buhrmester, Kwang, & Gosling, 2011). While MTurk workers are not a perfect reflection of American demographics, as they are somewhat younger, have a higher percentage of women, and are more educated than the American public as a whole, they are nonetheless closer than undergraduate samples to this ideal (Ross, Zaldivar, Irani, & Tomlinson, 2010). The study was fielded on SurveyGizmo's web study hosting service, on which all measures and materials, including informed consent and debriefing, were hosted. In order to qualify for this study, a participant must have been an American citizen or legal resident, aged 18 or older, who could understand written English. Of these, 91 (75%) were Caucasian, 16 (13%) were African-American, 11 were Asian (9%), and 4 (3%) reported another race. No participant identified as Hispanic. Participants ranged from 18-72 years old, with a mean

age of 35.35 (SD = 13.11). In terms of parenting status, 59 participants (49%) were single, and 52 (43%) were married or in a civil union or domestic partnership. Of the remaining participants, 9 (7%) were divorced, and 1 (1%) was separated.

As this study concerns parenting status, participants were also asked about their parenting status and intent. Of the 121 participants, 47 (39%) were parents, and 74 (61%) were non-parents. In terms of parenting intent for non-parents, 29 (24%) of participants were positive or pretty sure they want to have one or more children in the future, 25 (21%) were positive or pretty sure they do not want to be a parent in the future, and 20 (17%) were undecided.

In the initial data cleaning stage, and prior to any data analysis, 30 entries were removed from the database. Of these, 10 were disqualified for logging in to the survey from outside the United States, and 20 were removed for declining to consent to participate in the study. While it is possible that those logging in from outside the United States were Americans vacationing, living, or stationed abroad, it was impossible to make this determination. The data were removed as a precaution.

Measures and Materials

Target group free response pages. For each target group, a page was generated that listed the name of the group (e.g., Women Who Are Mothers), and a definition of the group (e.g., "A Mother is defined as a woman who is a parent to one or more children."). Participants were prompted with a question that took the form of "What characteristics do you believe [GROUP NAME] possess?" There were five blank text fields for which participants input answers. A list of target groups and descriptions can be found in Appendix C.

Demographics questionnaire. Demographic questions were asked regarding subjects such as sex, race and ethnicity, age, and parenting status and intent.

Procedure. Upon clicking the invitation link on Mechanical Turk's website, subjects arrived at the main study page. Consent was obtained via online form. Upon affirmative consent, subjects continued to the target group free response pages. Pages existed for six target groups (male and female versions of Childless, Childless-By-Choice, and Parents), as well as six filler groups (male and female versions of people who have birds, cats, or dogs as pets) to obfuscate the true purpose of the study. The order of the pages was assigned randomly for each participant. Upon completion of the final page of the sequence, participants took an additional measure unrelated to this study. They then filled out the demographics questionnaire, were debriefed online with a detailed explanation of the study, thanked, and given a code to enter in Mechanical Turk to facilitate payment (\$0.25).

Results

Free responses for each of the six target groups were aggregated. Within each group, item frequency was tallied, with word variations (e.g., "focus" and "focused") and synonyms (e.g., "lonely" and "lonesome") combined. As the purpose of this study was to aid in the generation of items to be included in Study 2, and a wide range of items was desired, free response items that were given by 10% or more of participants were included in Study 2. Table 1 includes all qualified items for all target groups. Each of the groups had six or seven qualifying items, with the exception of mothers, which had eleven. The items with the highest percentage of free responses were loving (49% for mothers, 44% for fathers) and caring (49% for mothers, 47% for fathers).

Many of the items achieved 10% or higher response rates for multiple target groups. For example, six of the eight qualifying items for fathers (caring, loving, strong, responsible, kind, and nurturing) also qualified for mothers. Furthermore, with the exception of "strong," which qualified for all three female groups as well as fathers, there was no overlap between qualifying items of the two parent groups and the four groups of non-parents. In total, 23 items qualified to be included in Study 2.

Discussion

A comparison of the stereotypes that occurred with the highest frequencies and appeared for multiple target groups suggests a division between parents and non-parents. The most frequent occurring items for mothers and fathers tended to be communal in nature, including such qualities as nurturing, caring, kindness, and being loving. In contrast, the most frequently occurring items that were common among the childless and childless-by-choice groups denote agency and, specifically, career-focus. These items include independence, intelligence, and being career-oriented. It is noteworthy that fathers appear to be seen as possessing communal traits, and do not seem to be seen as possessing agentic traits, which is inconsistent with descriptive and prescriptive stereotypes of men in general (e.g., Prentice & Carranza, 2002). Similarly, while women in general have been stereotyped as possessing communal traits, childless and childless-by-choice women do not appear to be stereotyped in this manner. Rather, they seem to be viewed as possessing traits considered more important for men (Prentice & Carranza, 2002).

Common most frequently occurring items among childless women and men included being sad and lonely, items that do not qualify for the childless-by-choice groups. It is possible that despite the descriptions for the childless groups explicitly stating that group members may be childless for any number of reasons, participants perceived the childless as not being content with their status. By virtue of the intentionality of their decision, the childless-by-choice may be perceived as being satisfied with, or at least not lamenting, their parenting status. This would be consistent

with results found by Callan (1985), who reported that childless men and women were considered lonely, while childless-by-choice men and women were not.

In another interesting finding, results indicate that childless and childless-by-choice men are stereotyped as being immature, while the corresponding groups of women are not. This may indicate that men are generally perceived as immature, but fatherhood represents a milestone that removes that perception. The absence of immaturity as a stereotype for any female target group may suggest that women as a whole are perceived as being mature, and do not require a milestone like motherhood to trigger that perception. There is evidence to support part of this argument. Prentice and Carranza (2002) found that while maturity was not a quality that women were required by society to possess, it was nonetheless a more typical quality for women than for men.

It is worth noting that all qualifying Study 1 items are anticipated by previous findings. Despite using a liberal inclusion criterion of 10% of free responses, all items generated in Study 1 had been used in prior studies of gender and parenting related stereotypes (Prentice & Carranza, 2002; Callan, 1985; Troilo & Coleman, 2008; Ganong & Coleman, 1985). Those studies are based on constructs relevant to gender discussed earlier in the dissertation. Those constructs also have led to the construction of additional items not found in Study 1. We now turn to Study 2, in which scales are generated based on those constructs relevant to the content of stereotypes for gender and parenting status-based social targets.

Study 2

Study 2 addressed two issues. First, it sought to determine how stereotype content differs between groups that vary by parenting status within each target gender, using a methodology complementary to free response: rating scales. Second, it sought to determine if and how stereotypes of men and women differ within each parenting status group, and if this difference is consistent across all parenting groups.

The pool of items rated in Study 2 comprised items from Study 1, items from previous literature relevant to constructs applicable to gender and parenting status, and experimenter-generated items. A between-subjects design was utilized, in which each subject was assigned randomly to rate how characteristic each item was for one of the target groups. The aforementioned items were combined into two sets of scales, which were constructed in different ways to serve different purposes.

The first set contains six scales designed to capture constructs previously used to describe stereotype content relevant to the target groups of interest. These include constructs concerning masculinity and femininity, involving attributes that are prescribed or proscribed for men and women (Prentice & Carranza, 2002), and constructs describing stereotype content involving warmth and competence (Fiske, et al., 2002). Scales were constructed that were expected to capture these dimensions.

The second set of scales was derived empirically, rather than on the basis of a priori constructs. They were constructed on the basis of results of discriminant function analyses performed on residual items, that is, those items not included in the first set of scales. These analyses were performed within each target gender and identified

dimensions that distinguished between parenting status groups. Two scales were created for each target gender based on the items that best defined those discriminant functions.

Item pool. Items used in Study 2 came from three sources. First, the 23 qualifying items from Study 1 were included, as previously described. Second, 171 items were taken from previous literature on differences in perception based on gender, parenting status, and subtyping of groups. Finally, I added 32 items that I believed would complement items already in the pool. This generally took the form of adding the opposite of the respective items (e.g., adding "Unattractive" to complement "Attractive").

The largest set of items, consisting of 131 in total, was taken from Prentice and Carranza's (2002) work on male and female prescriptions and proscriptions. I chose this study as a source of items because it contains an array of attributes, many of which differ in terms of desirability for each gender. In addition, many of the items in Prentice and Carranza's (2002) study are taken from the Bem Sex Role Inventory, which explored dimensions of masculinity and femininity.

The items comprising the warmth and competence scales of the Stereotype Content Model (Fiske, et al., 2002) were also added to my item pool. This model has been used extensively to study of how groups of different races, ethnicities, and social groups.

Combined, the two scales would have contributed 10 items to my item pool. Four of the 10 items were already present in the pool, yielding a gain of six items.

Additional studies served as a basis to fill out the item list with attributes relevant to parents or the childless-by-choice. This includes Ganong and Coleman's (1985) research

¹ This adds up to 226 items. Eight items yielded from Study 1 were also present in item lists taken from the literature. After removing duplicate items, the final tally consisted of 218 items.

on the content of stereotypes of the subtypes of mothers, Troilo and Coleman's (2008) work on the subtyping of fathers, and items adapted from childless-by-choice literature (e.g., Muller and Yoder, 1999; Giles, Shaw, and Morgan, 2009; Callan 1985). A complete list of the items used in the study can be found in Appendix G.

My hypotheses were as follows:

Hypothesis 1: Childless-by-choice women will be stereotyped as possessing a lower level of communal traits, as characterized by female prescriptive traits, as compared to childless women and mothers. Childless women will be stereotyped as possessing a lower level of communal traits as compared to mothers.

Hypothesis 2: Childless-by-choice men will be stereotyped as possessing a lower level of communal traits as compared to fathers and childless men. Childless men will be perceived as possessing a lower level of communal traits as compared to fathers.

Hypothesis 3: Childless and childless-by-choice women will be stereotyped as being higher in agency, as characterized by male prescriptions, than mothers.

Hypothesis 4: Although not a formal prediction of null findings, male target groups were not expected to differ in terms of perceived agency.

Hypothesis 5: Mothers and fathers will be stereotyped as being warmer than childless and childless-by-choice women.

Hypothesis 6: Childless-by-choice and childless women will be perceived as more competent than mothers.

Additionally, I conducted analyses to determine if the residual items (i.e., the items not included in the a priori scales) reflect dimensions that discriminate parenting status within each target gender, but might be independent of the a priori scales.

Method

Participants. Five hundred seventy-two participants comprised the sample, of which 373 (65%) of the participants were women, and 199 (35%) were men. Participant age ranged from 18-74, with a median age of 33, a mean age of 36.77, and a standard deviation of 13.46. Most participants were single (n = 254, 44%) or married (n = 249,44%), with the remainder being divorced (n = 55, 10%), separated (n = 7, 1%, or widowed (n = 7, 1%). The sample was predominantly Caucasian (n = 478, 84%), with African-Americans (n = 51, 9%), Asians (n = 42, 7%), and Native Hawaiian or Pacific Islanders (n = 6, 1%) making up most of the balance, and 12 participants (3%) selecting "Other." In addition, 45 (8%) participants identified as Hispanic. Parents (n = 264) comprised 46% of the sample, and non-parents (n = 308) comprised 54% of the sample. Non-parents were almost balanced in terms of parenting intent preference, with 122 (21%) participants either positive or pretty sure they will have children in the future, 118 (20%) participants positive or pretty sure they will not have children in the future, and 68 (12%) were undecided on the matter. Participants were recruited online using Amazon's Mechanical Turk, and the study was fielded on SurveyGizmo's web study hosting service, on which all measures and materials, including informed consent and debriefing, were hosted. In order to qualify, a participant must have been an American citizen or legal resident, aged 18 or older, who was able to understand English. A full reporting of demographics from Study 2, including disqualified participants, can be found in Appendix K.

Measures and Materials. The primary instrument for this study consisted of a questionnaire regarding stereotypes of particular groups. Subjects were given the name

of a single group (e.g., Women who are mothers) and a group description (e.g., "A mother is defined as a woman who is a parent to one or more children."). They were then give a randomized list of 221 words and phrases which were rated on 7 point Likert scales ("1 = Not at all characteristic of the group, 7 = Completely characteristic of the group).. Three of the 221 items served as "attention checks" to verify the subject was attending to the task, and directed the subject to select a specific value (e.g., "4") on the scale. Of the 218 test items, twenty-three were generated from the results of Study 1. The full list of items can be found in Appendix G. In addition to the main instrument, a demographics questionnaire was included, which contained questions related to participant gender, race, age, marital status, parenting status, and parenting intent (see Appendix K.

Procedure. Upon clicking the invitation link on Mechanical Turk's website, subjects arrived at the main study page. Consent was obtained via online form. Upon affirmative consent, subjects were instructed to input the time in hours and minutes², which served to randomize the group the subject would be rating. Subjects were then given the instructions as mentioned above, followed by 9 pages of items to be rated. Each page had a reminder of the group to be rated and a description of the group. On completion of the ratings, subjects were given a brief demographics questionnaire, followed by a debriefing page that included a code for the subjects to enter on the

² The randomization scheme was such that each of the sixty minutes was mapped to an experimental condition. Upon the initial launch of the studies that used this scheme, the pattern was such that the experimental conditions formed a "block" sequence which was repeated over the course of the sixty minutes. For example, in Study 2, the Mother condition would be linked to minutes 1, 7, 13, 19, 26, 31, 37, 43, 49, and 55. The Father condition would be linked to minutes 2, 8, et cetera.

Mechanical Turk website to receive compensation (\$0.41). The aforementioned materials can be found in Appendices E through J.

Results

A priori scale creation. Six scales were created from the items used in Study 2. Four of the scales correspond to items related to male and female prescriptions and proscriptions, adapted from Prentice and Carranza (2002). The two remaining scales were taken from the warmth and competence scales of the Stereotype Content Model (Fiske, et al., 2002). The composition of these six scales can be found in Appendix H.

In Prentice and Carranza's (2002) research, distinct groups of traits were found to exist for qualities men and women should possess (prescriptions) and ones they should not possess (proscriptions). Furthermore, these prescriptions and proscriptions were broken down further in terms of being "intensified" and "relaxed." Intensified prescriptions are qualities society strongly expects one to possess, and intensified proscriptions are qualities which are strongly socially unacceptable. In contrast, relaxed prescriptions, while beneficial to have, are not as critical to possess. Likewise, relaxed proscriptions, while not encouraged, are nonetheless more tolerated. The items that compose these eight groupings (intensified and relaxed prescriptions and proscriptions for each gender) are generally not mutually exclusive. For example, items that are intense prescriptions for one gender tend to be relaxed prescriptions for the other. While none of the eight groupings fully duplicate the items of any other grouping, there is considerable overlap. I combined items from the eight groupings to form four scales in a way that eliminated item overlap between scales. These four scales are: male prescriptions, female prescriptions, male proscriptions, and female proscriptions. The original eight groupings from Prentice and Carranza (2002) can be found in Appendix I.

In addition to the scales related to prescriptions proscriptions for men and women, two scales, warmth and competence, were taken from Fiske et al.'s (2002) Stereotype Content Model. Minor overlap exists between items in the Stereotype Content Model scales, and the prescription and proscription scales. Specifically, two of the six competence scale items overlap with the male prescription scale items: efficient and intelligent. In addition, two of the six warmth scale items overlap with the female prescription scale items: friendly and warm.

Reliability Analyses. Reliability analysis was performed for each scale, for each target group as well as the total sample, for a total of 42 analyses. Cronbach's alphas for the scale and target group combinations ranged from .77 (female proscriptions – mothers) to .95 (male proscriptions – childless women). The mean internal consistency reliability is .88, and the median is .89. As such, the scales appear reliable. A complete list of scale reliability scores can be found in Table 2. After determining that the scales were reliable, correlation analyses were conducted between the six scales for each target group. The results of these analyses are described below.

Correlation analyses. Correlations between the six scales across the six target groups range from an absolute value of .00 to an absolute value of .94. Of the 90 correlations across all scales and target groups, 74 are significant at the p < .05 level, and 69 are significant at the p < .01 level. Thirty-five of the 90 correlations have an absolute value of .70 or better. These high correlations between scales suggest that the scales are not highly distinctive, though in some cases they may have some uniqueness. Correlations of scales for each target group can be found in Tables 3 through 8 in Appendix A.

Hypothesis testing. A 2 (target group gender) x 3 (target group parenting status) MANOVA was performed on the 6 scales. A main effect was found for Parenting Status, Wilks' Lambda = .65, F(12, 1122) = 22.87, p < .001. A main effect was also found for Target Gender, Wilks' Lambda = .92, F(6, 1122) = 7.69, p < .001. In addition, there was a significant interaction effect, Wilks' Lambda = .93, F(12, 1122) = 3.35, p < .001.

The MANOVA results provided the justification to perform ANOVAs for each of the six scale scores. For each of these scores, I performed a 2 (target group gender) x 3 (target group parenting status) univariate ANOVA. Follow-up Tukey's HSD tests, simple effects analyses, and Fisher's LSD tests were performed as needed. Results are summarized below. Significance is determined at the p < .05 level unless specified otherwise. Complete statistical results can be found in Tables 9 and 10.

Female proscriptions. A main effect was found for parenting status, p < .001. Childless-by-choice targets had significantly higher mean scores than childless targets as well as parents. In addition, childless targets had significantly higher mean scores than parents. A main effect was also found for target gender, p < .001. Men had higher mean scores than women. The interaction between parenting status and target gender was also significant, p < .01. Simple effects tests were not significant for the female target groups, but were significant for the male target groups, p > .001. Fathers scored significantly lower than both childless male target groups, and childless men scored lower than childless-by-choice men. Effect sizes were small for the main effects, interaction effects, and simple effects with eta-squared ranging from .02-.07. Cohen's d for the male target groups ranged from .34 (childless and childless-by-choice men) to .83 (fathers and

childless-by-choice men), indicating a small effect for the former and a large effect for the latter.

Male Proscriptions. A main effect was found for parenting status, p < .001; parents had significantly higher mean scores than the childless and the childless-by-choice target groups, but the childless and childless-by-choice groups did not differ significantly. There was no main effect for target gender. The interaction between parenting status and target gender was significant, p < .001. Simple effects tests revealed no significant differences between male target groups. Female target groups differed significantly, p < .001. The mean score for mothers was found to be significantly higher than those of childless and childless-by-choice women, ps < .001. Scores did not differ significantly between childless and childless-by-choice women. Effect sizes were small for the main effects, interaction effects, and simple effects with eta-squared ranging from .01-.06. Cohen's d for the Fisher's LSD tests comparing mothers with the childless groups were moderate-to-large, and ranged from .63 (mothers and childless women) to .85 (mothers and childless-by-choice women).

Female prescriptions. A main effect was found for parenting status, p < .001. Post hoc Tukey's HSD tests showed differences between all three parenting status groups, p < .05. Parents had significantly higher mean scores than childless targets as well as childless-by-choice targets; childless targets had significantly higher mean scores than childless-by-choice targets. These result support Hypotheses 1 and 2. A main effect was also found for target gender, p < .001; women had higher means scores than men. There was no interaction effect between gender and parenting status. Effect sizes for the main effects were small-to-moderate, eta-squared ranging from .04-.09.

Male prescriptions. A main effect was found for parenting status, p < .01; childless-by-choice targets had significantly higher scores than parents, p < .05. Scores of childless targets did not differ from those of childless-by-choice or parent targets. A main effect was also found for target gender, p < .01. Interestingly, women had higher scores than men. The interaction between parenting status and target gender was also significant. Two simple effects tests were conducted. The simple effects test conducted using the male target groups was not significant, consistent with my informal expectation in hypothesis four. The simple effects test for the female target groups was significant, p < .001. Hypothesis 3 was supported, as the mean score for mothers was significantly lower than the scores of childless-by-choice women, p < .001, and childless women, p < .001.05. The mean score for childless women did not differ significantly from that of childless-by-choice women. Effect sizes were small for the main effects, interaction effects, and simple effects with eta-squared ranging from .01-.03. Cohen's d for the comparisons of mothers to the childless groups ranged from .35 (mothers and childless women) to .57 (mothers and childless-by-choice women), indicating a small effect for the former and a medium effect for the latter.

Warmth. A main effect were found for parenting status, p < .001. Consistent with Hypothesis 5, post hoc Tukey's HSD tests showed parents having significantly higher scores than the two childless groups, p < 05. The childless and childless-by-choice groups did not differ significantly from each other. A main effect was also found for target gender, p < .001, as women had higher scores than men. The interaction between parenting status and target gender was not significant. Effect sizes were small for the main effects, with eta-squared ranging from .02-.06.

Competence. Contrary to my sixth hypothesis, mothers were not perceived as less competent than the childless and childless-by-choice target groups, as there was neither a main effect for parenting status, nor an interaction effect between parenting status and target gender. There was a main effect target gender, p < .001, eta-squared = .03; women had higher mean scores than men.

Empirically-derived scales: female target groups. Discriminant function analysis was used to create scales for the female target groups using the 137 residual items not included in the a priori scales. Discriminant function analysis is a statistical technique, mathematically similar to MANOVA, which is used to predict group membership from a set of predictors. In this case, the 137 residual items are treated as independent variables to predict parenting status. Analysis of these predictors results a number of functions which may or may not differentiate between the groups at a statistically significant level, as determined by Wilks's Lambda. The analyses of the female target group data was significant for both the first function (Wilks's Lambda = .05, Chi-square = 662.01, Canonical correlation = .94, df = 274, p < .001) and the second function (Wilks's Lambda = .42, Chi-square = 185.54, Canonical correlation = .76, df = 136, p < .01). This means there is a statistically significant relationship between women's parenting status and each of the two discriminant functions. The two functions that were extracted accounted for over 95% of the variance of the stereotypes of women of different parenting statuses. Function 1 accounted for 86 % of the explained variance, and Function 2 accounted for 14% of the explained variance, as determined by their eigenvalues. Figure 1 shows the centroid map for the three groups relative to the two functions.

As each function was found to differentiate between the parenting status groups, the predictors that comprise each function were then examined. Similar to standardized beta coefficients in linear regression, each predictor contributes to each function to a particular degree. The fifteen items that had the highest weights (in absolute terms) for each function were combined to form scales. Details as to scale composition can be found in Table 11. Based on item content, for the purposes of this dissertation the Function 1 scale was labeled "independent and non-communal," and included items such as career orientation, independent, uninterested in children, dislikes children, and carefree. The Function 2 scale was labeled "uncompromising," and included items such as ruthless, intimidating, cold, honest, and choosy. Reliability analyses were conducted on both scales for each female target group and for the combined female targets, for a total of 8 analyses. For all female targets, Cronbach's alphas for the independent and non-communal scale was .90, and was .72 for the uncompromising scale. Based on these results, the scales may be considered reliable. A complete list of scale reliability scores can be found in Table 12.

Correlations between a priori and discriminant function scales. Correlations were computed between the six a priori scales and the two scales derived from the discriminant function analysis. Correlations between the independent and non-communal scale and the six a priori scales ranged in strength from -.47 (female prescriptions, p < .001) to -.07 (Competence, ns). Correlations between the uncompromising scale and the six a priori scales ranged from to -.32 (male prescriptions, p < .001) to .67 (female proscriptions, p < .001). The independent and non-communal and uncompromising scales were

significantly correlated, r = .34, p < .001. A full table of correlations between the a priori scales and the empirically-created scales can be found in Table 13.

Hypothesis testing. Three-group one-way ANOVAs (parenting status for female target groups) were performed on both of the empirically derived scales. A summary of group means and analyses for both scales can be found in Table 14. Female parenting status target groups differed from one another significantly for both the Independent and Non-Communal scale ($\eta^2 = .66$) and the uncompromising scale ($\eta^2 = .12$), ps < .001. Tukey's HSD tests revealed that childless-by-choice women scored significantly higher than both the mother and childless target groups for both scales. In addition, childless women scored higher than mothers in on the Independent and Non-Communal scale, but not the uncompromising scale. For the Independent and Non-Communal scale, effect sizes in comparisons between mothers and childless women (Cohen's d = 2.69) and mothers and childless-by-choice women (Cohen's d = 3.23) were large, while comparisons between childless and childless-by-choice women were moderate (Cohen's d = 0.47). Effect sizes between groups using the uncompromising scale were lower than for the Independent and Non-Communal scale. A large effect was found between childless-by-choice women and childless women (Cohen's d = 0.82), and a medium effect was found between childless-by-choice women and mothers (Cohen's d = .61). The comparison between mothers and childless women was relatively small (Cohen's d =.31).

Empirically-derived scales: male target groups. As with the female target groups, discriminant function analysis was used to create scales for the male target groups using the 137 residual items not included in the a priori scales. The analyses of the male target

group data was significant for the both the first function (Wilks's Lambda = .06, Chisquare = 621.16, Canonical correlation = .93, df = 274, p < .001) and the second function (Wilks's Lambda = .41, Chi-square = 190.25, df = 136, Canonical correlation = .77, p < .01). This means there is a statistically significant relationship between men's parenting status and each of the two discriminant functions. The two functions extracted accounted for over 94% of the variance of the stereotypes of men of different parenting statuses. Function 1 accounted for 82% of the explained variance, and Function 2 accounted for 18% of the explained variance, as determined by their eigenvalues. Figure 2 shows the centroid map for the three groups relative to the two functions.

The fifteen items that had the highest weights for each function were combined to form scales. Based on item content, for the purposes of this dissertation, the Function 1 scale was labeled "family oriented," and included items such as family-oriented, likes children, nurturing, traditional, and loving. The Function 2 scale was labeled "peculiar and peevish," and included items such as choosy, prejudiced, busy, perfectionist, feminine, bisexual, and outspoken. Scale composition and factor loadings can be found in Table 15. Reliability analyses were then conducted on both scales for each male target group and for the combined male targets, for a total of eight analyses. For all male targets, Cronbach's alphas were .93 for the family oriented scale, and .68 for the peculiar and peevish scale. Based on these results, the scales may be considered reliable. A complete list of scale reliability scores can be found in Table 16.

Correlations between a priori and discriminant function scales

Correlations were computed between the six a priori scales and the two empirically derived scales. Correlations between the family-oriented scale and the six a priori scales

ranged in strength from -.04 (male proscriptions, ns) to .65 (female prescriptions, p < .001). Correlations between the peculiar and peevish scale and the six a priori scales ranged in strength from .05 (competence, ns) to .73 (female proscriptions, p < .001). The family-oriented and peculiar and peevish scales were significantly correlated, r = -.39, p < .001. A full table of correlations between the a priori scales and the empirically-created scales can be found in Table 17.

Hypothesis testing. Three-group one-way ANOVAs (parenting status for male target groups) were performed on both of the empirically derived scales. A summary of group means and analyses for both scales can be found in Table 18. Male parenting status target groups differed from one another significantly for both the family oriented $(\eta^2 = .62)$ and peculiar and peevish scales $(\eta^2 = .17)$, ps < .001. In terms of family orientation, post hoc tests revealed that fathers scored significantly higher than both childless groups, and childless men scored significantly higher than childless-by-choice men. In contrast, childless-by-choice men scored significantly higher in terms of peculiarity and peevishness than fathers and childless men, while fathers and childless male target groups did not differ significantly from each other. For the family oriented scale, effect sizes in comparisons between fathers and childless men (Cohen's d = 2.62) and fathers and childless-by-choice men (Cohen's d = 2.82) were large, while comparisons between childless and childless-by-choice men were relatively small (Cohen's d = 0.32). Effect sizes between groups using the peculiar and peevish scale were lower than for the family oriented scale. A large effect was found between childless-by-choice men and childless men (Cohen's d = 0.92), and between childless-bychoice men and fathers (Cohen's d = .91). The effect of the comparison between fathers and childless men was small (Cohen's d = .09).

Discussion

The purpose of Study 2 was to examine the differences between the target groups on stereotype dimensions. Subjects rated items to indicate how characteristic they believed each attribute to be for one of six target groups: childless-by-choice men and women, childless men and women, and parents. A selection of items taken from the pool were combined into scales, representing key constructs of gender expectations (male and female prescriptions and proscriptions, based on Prentice & Carranza, 2002), and the stereotype dimensions of warmth and competence from the Stereotype Content Model (Fiske, et al., 2002). Results partially confirmed initial expectations.

Taken as a whole, evidence supports the main aspects of the hypotheses. The key target group comparisons are between the childless-by-choice and parents. As predicted, childless-by-choice targets were stereotyped as having lower levels of communal traits compared to parents. Also as predicted, the pattern of data suggests that childless-by-choice women are stereotyped as being more agentic and more competent than mothers. Parents were stereotyped as being warmer than childless and childless-by-choice targets, and the pattern of the data suggests this is true for both male and female targets. Finally, male target groups did not differ in terms of perceived competence.

More specifically, when looking across gender, post hoc analyses revealed differences between the childless-by-choice and parents on five of the six scales. As predicted, childless-by-choice targets scored higher than parents on scale consisting of primarily agentic traits. Childless-by-choice targets also scored higher on a scale of less desirable traits that are more tolerated for men than for women. Taken together, subjects stereotyped childless-by-choice targets as possessing qualities fulfilling society's

expectations for the traits men are expected to possess, more than they stereotyped parents with those traits. Parents, meanwhile, had higher mean scores than the childless-by-choice on scales representing communal and warm traits. Parents also had higher scores on items that are considered undesirable, but are judged by society to be more acceptable for women than for men.

A secondary interest in this study was the differences between target genders. Women had higher scale scores than men on measures of female prescriptions, male prescriptions, warmth, and competence. Men had a higher scale score than women in terms of female proscriptions. Women, therefore, are perceived as being more warm, communal, competent, and agentic than men, while men are perceived as possessing higher levels of traits that suggest negative aspects of agency. It is not surprising that women are stereotyped as possessing higher levels of traits that society expects women to possess (i.e., female prescriptions and warmth). It is interesting that they are stereotyped as possessing higher levels of traits that are generally considered male gender-typed. The pattern of means for the target groups on the male prescriptions and competence scales suggest that childless-by-choice and childless women are driving this difference. Of the six target groups, childless-by-choice women have the highest mean scores and childless women have the second highest mean scores on both scales. While mothers have the third highest mean scores in terms of competence, they rank fifth in terms of male prescriptions, slightly ahead of childless men.

The findings from Study 2 appear to be some of the first to provide a quantitative look at the stereotype content of childless-by-choice men. While prior research from Callan (1985) included childless-by-choice men in a study of the perception of groups

based on parenting status, it included few items, and was based on a small (N = 45) college student sample. The pattern of means in my study suggests childless-by-choice men are stereotyped in ways that demonstrate a neutral (at best) or less positive (at worst) comparison with fathers and childless-by-choice women. The pattern of data suggests that childless-by-choice men are viewed to possess competent and agentic traits similar to that of fathers, and communal and warm traits less so than fathers. They also appear to be viewed as possessing lower levels of communal and agentic traits than childless-by-choice women.

On the whole, results of Study 2 agree with much of the literature on gender and parenting status. The childless-by-choice, and in particular childless-by-choice women, are stereotyped as possessing agentic traits. A great deal of research on how childless-by-choice women are stereotyped has found they are perceived as career-focused and independent (Callan, 1985; Giles, et al., 2009; Mueller & Yoder, 1999). In terms of stereotypes of mothers and fathers, fathers appear to be perceived as possessing relatively high levels of agentic and communal traits, while mothers are perceived as possessing relatively high levels of communal, but not agentic traits. This double-positive for fathers has been demonstrated in previous research (Cuddy, et al., 2004).

While the methodology for Study 2 is consistent with prior stereotype research, there are methodological considerations that should considered when interpreting the results. First, unlike Study 1, Study 2 utilized a between-subjects design, rather than a within-subjects design. This eliminated the need for filler groups and made the study considerably shorter than if each participant were to rate each item for each target group. This also, however, makes it unclear if the participants were rating the target group in and

of itself, or potentially against opposite gender or alternative parenting status groups.

Second, parent target groups did not specify the number of children the parent had. Here again, it is unclear if different results would have emerged if a specific number of children parented by the target group was specified. Finally, the study had a relatively large number of items to be rated, which could have led to participant fatigue. The randomization strategy attempted to distribute potential fatigue among all items, but it still may have played a role in participant responses.

Studies 1 and 2 provide insight as to how stereotypes differ between groups who differ by gender and parenting status. We turn now to Studies 3 and 4, in which I determined if the stereotypes that attached to groups in Studies 1 and 2 also attached to hypothetical individuals in Studies 3 and 4 in the context of employment scenarios. I also determined if, and if so, how, parenting status affected the workplace evaluations of these individuals within each gender.

Studies 3 and 4: An Overview

The results of Study 2 demonstrated, as expected, that certain stereotypes attached differently to groups of men and women depending on their parenting status. The purposes of Studies 3 and 4 were to determine if these stereotypes have repercussions in terms of prejudice and potentially have relevance to discrimination against target group members. This was examined in two parallel experiments involving research participants' reactions to hypothetical employee evaluation scenarios. Study 3 uses female target group members, whereas Study 4 uses male target group members.

Gender, Parenting Status, and Employment. Men and women in general, and mothers and fathers in particular, have had very different experiences from each other in the workplace. Men have been disproportionately represented in fields including seniorlevel corporate executives (Catalyst, 2014b), science and engineering (National Science Foundation, 2013), the military (United States Department of Defense, 2014), law enforcement (United States Department of Justice, 2010), fire- fighting (United States Census Burearu, 2011), and automotive repair and servicing (Catalyst, 2014a). In contrast, women have been disproportionately represented in fields including elementary and middle school education, day care, nursing, social work, and counseling (United States Bureau of Labor Statistics, 2013). Taken as a whole, male-typed jobs are generally perceived as higher in prestige than female-typed jobs (Oswald, 2003), and commonly prioritize agentic traits as well as mechanical ability, science and technological knowledge, and/or career ambition. In contrast, female-typed jobs tend to prioritize communal traits, including those associated with caring professions (e.g., nursing, teaching, counseling), which include professions that involve working with or

treating children. Reasons for this disparity vary, but may include discrimination by employers who favor one gender over another (Darity Jr. & Mason, 1998), and individual preferences which are influenced by success in particular academic domains, as well as parental encouragement or discouragement (Eccles, 1987).

While many occupations are gender-typed, they are typically not exclusively staffed by one gender. As such, women and men who seek employment, or are already employed, in a job that can be characterized as not matching their gender are thought to face negative repercussions, known as backlash (Rudman, 1998). Backlash can manifest itself in numerous ways. For example, Rudman and Glick (2001) conducted research on how prescriptive stereotypes relate to backlash for women in a hiring scenario. Women and men were presented as either agentic or androgynous, and applied for a managerial position that was either masculinized (by emphasizing ambition, independence, and technical skill) or feminized (by emphasizing the need for helpfulness and sensitivity to the needs of clients). Agentic applicants were rated as more competent than androgynous applicants, and agentic men were found to be more socially skilled than agentic women. Furthermore, while the agentic woman was found to be less hirable compared to the agentic man in the feminized job, the androgynous woman did not face discrimination in terms of hireability as compared to the androgynous man. In short, women who present themselves as possessing agentic qualities may face backlash as a result of a perceived lack of "niceness," a situation not faced by agentic men or androgynous women.

This backlash against agentic women has been theorized to stem from different causes. One potential cause may be shifting standards of evaluation. Phelan, Moss-Racusin, and Rudman (2008) found that while hireability was predicted by perceived

competence for agentic and communal men, as well as communal women, hireability was predicted by perceived social skills (or relative lack thereof) for agentic women. Women, therefore, are believed to be evaluated by the criteria in which they are perceived to be deficient: competence for communal women, social skills (i.e., warmth) for agentic women. A second possibility is a perceived "lack of fit" (Heilman, 2001). Women, by virtue of being stereotyped as more communal and less agentic than men, are seen as mismatched for higher-level executive positions. This "mismatch" may extend to women in leadership positions (Eagly & Karau, 2002). For example, women in such occupations who are presented as successful in their job may be perceived as less likeable and more hostile than a man who is presented as similarly successful (Heilman, Wallen, Fuchs, & Tamkins, 2004).

While backlash research has primarily focused on the effects it has on women, there has been some research on its effects on men. In addition to their findings concerning the effects of shifting standards for agentic women, Phelan et al. (2008) also found that men who were presented as being communal were perceived as having lower levels of social skills than female communal applicants. Furthermore, in another study of hireability and backlash, Moss-Racusin, Phelan, and Rudman (2010) found that men who presented themselves as modest were less liked, and less hirable, than modest women. Men who are successful in predominantly female jobs may also be considered more ineffectual and get less respect than women in those jobs (Heilman & Wallen, 2010). There is some contrary evidence, however, that suggests that men are more favored than women in female-dominant occupations. Men may benefit from a "glass escalator" in traditionally

female jobs (Williams, 1992) in terms of wages, though not necessarily in terms of rate of promotion (Budig, 2002).

Parenthood adds further complication in terms of gender and employment. While women in general have faced a "glass ceiling" and men in general may benefit from a "glass escalator," mothers may face what has been called a "maternal wall" (Crosby, Williams, & Biernat, 2004; J. Williams, 2001). The maternal wall can be considered the combination of a number of factors that have resulted in mothers having a disadvantage in higher-status, higher-compensated employment relative to men and childless women. Jobs of this nature tend to require "overwork," or work beyond the traditional forty hours per week; these jobs are disproportionately staffed by men rather than women, and is thought to contribute considerably to the gender pay gap (Cha & Weeden, 2014). It is assumed that the gender disparity in hours worked per week is due in large part to family care responsibilities, especially child-care, which defaults to mothers rather than fathers. This is evinced by data that suggests that beyond just reducing hours, women who are mothers are more likely to leave male-dominated occupations, or leave the workforce entirely, as compared to men and childless women (Cha, 2010, 2013).

Unlike mothers, fathers do not appear to face a "paternal wall." Evidence, in fact, suggests the opposite: some men may benefit from a "fatherhood wage premium" in the workplace after becoming a parent. Part of this may be due to "overwork," as men who have children have reported working more hours than men without children, led by the fathers who view their role as the more traditional "provider" for the family (Kaufman & Uhlenberg, 2000). They also may be perceived as warmer (Cuddy, et al., 2004) and more committed to paid work as compared to childless men (Correll, Benard, & Paik, 2007).

While there has been considerable research regarding employment and men and women in general, and mothers and fathers in particular, I was unable to find studies that dealt specifically with the childless-by-choice. It is possible they may be viewed as being ideal employees, in the sense that they can dedicate long hours to employers without the responsibilities of parenthood, and childless-by-choice women may be perceived as a good "fit" for masculine-typed jobs as they have been stereotyped as being career-oriented. In contrast, childless-by-choice women are violating a major gender prescription by avoiding motherhood in favor of career, which may result in backlash. Childless-by-choice men, as compared with fathers, may be viewed as less committed to paid work, due to a lack of offspring to provide for. In Study 3 and Study 4, I sought to add to the body of research concerning parenting status and employment, with a focus on the childless-by-choice.

Study 3

Study 3 addressed two main issues. First, it sought to determine if individual female targets who differ by parenting status are perceived differently from each other in ways similar to that of the female target groups in Study 2. Second, it sought to determine if these individual target women face consequences for these perceptions in terms of prejudice, and to probe the possibility of discrimination in the workplace.

These goals were addressed by means of an employment scenario vignette study. Participants read a vignette describing an employer and employee in one of two occupations: a Kindergarten teacher, which prioritizes traits that are communal and/or prescriptive for women, and a financial consultant, which prioritizes traits that are agentic and/or prescriptive of men. The employee in the vignette was described as being a mother, childless, or childless-by-choice. After reading the vignette, the participant rated the target on a number of personality attributes that emerged from Study 2. In addition, the target was rated on measures assessing how much the target was perceived as being liked and being respected, as well as measures concerning the target's perceived value to her employer, and her future work and procreative plans.³

My hypotheses for Study 3 were as follows:

Hypothesis 1. Differences in perceptions of target individuals' personality attributes will follow the same pattern as was found for differences in stereotype content of the respective target groups in Study 2. Specifically, the childless-by-choice woman will be

³ Two additional measures were included which concerned how typical the target was perceived to be compared to other women and compared to others in her profession. These measures concerned a possible follow-up study, and will not be discussed in this dissertation.

stereotyped as possessing greater levels of female proscriptive traits, lower levels of female prescriptive traits, less warmth, and greater career drive than the mother.

Hypothesis 2. Job type will interact with target parenting status in terms of prejudice. Specifically, the childless-by-choice female Kindergarten teacher will be liked less than the mother who teaches Kindergarten. The childless-by-choice female consultant will be liked more than the mother who is a consultant.

Hypothesis 3. Job type will interact with parenting status in terms of level of respect and salary. Specifically, the mother target who is portrayed as a Kindergarten teacher will be more respected and receive a higher salary than childless-by-choice target who is portrayed as a Kindergarten teacher. Additionally, the childless-by-choice target who is portrayed as a consultant will be more respected and receive a higher salary as compared to the mother target who is portrayed as a consultant.

Hypothesis 4: There will be a main effect for parenting status in terms of the degree to which the target will be judged as likely to seek a promotion, so that the childless-by-choice target will be rated higher than the mother target.

Method

Participants. Participants were 429 "workers" (288 female, 139 male, 2 transgendered) who were recruited from Amazon's Mechanical Turk, a service which provides a pool of workers for online projects, who were directed to the online study hosted by SurveyGizmo, a web study hosting service. Of these, 370 (86%) were Caucasian, 30 (7%) were African-Americans (7%), 16 (4%) were Asian, 8 (2%) were American Indians, American Natives, Hawaiians and Pacific Islanders, and 9 (2%) identified as "Other." In addition, 15 participants (8%) identified as Hispanic. Participant ages ranged from 18 to 73 years, with a median age of 34 years, a mean age of 37.77 years, and a standard deviation of 12.73 years. In terms of marital status, 191 (45%) participants were married or in a civil partnership, 178 (42%) were single, 46 (11%) were divorced, 9 (2%) were widowed, and 5 (1%) were separated. Parents (n =212) comprised 49% of the sample. In terms of the non-parents, 75 (17%) were either positive or pretty sure they will have children in the future, 100 (23%) were positive or pretty sure they will not have children in the future, and 42 (10%) were undecided on the matter. In order to qualify, a participant must have been an American citizen or legal resident, aged 18 or older, who was able to understand English. All measures and materials, including informed consent and debriefing, were completed on the SurveyGizmo website. Participants received \$0.75 for their participation in the study, which lasted approximately 25 minutes.

Manipulation and attention checks. Three types of checks were used in this study. The first set of checks were embedded throughout the study, and were intended to ensure the participant was attending to the task. These included ratings scale questions in which

the participant was required to select a particular number on the scale (e.g., 4), and multiple choice questions in which the participant was required to select the obvious correct answer to a basic knowledge question. During data cleaning, 53 participants were removed from the study for failing two or more attention checks (11), having an IP referral address outside the United States (14) and by participant request (28). These data were screened out prior to data analysis, and were not included in the final dataset.⁴

A second set of three measures appeared near the end of the study, in which the subject was asked to select the target's gender, occupation, and parenting status. Data from 15 participants were removed for having one or more incorrect responses.

The third set of six measures was used to verify if the participants were interpreting the nature of the target's job in terms of the level of ambition, career drive, nurturance, and work-life balance that served as the basis for the selection of those positions for the study. Three measures included rating scales regarding the perception of how much the position required being an ambitious person, being a nurturing person, and a bipolar scale that asked which the position required more of, being nurturing or being ambitious. The remaining three measures included similar rating scales regarding the perception of how much the position was suited for someone who is career-driven, who seeks a good work-life balance, and which the position was better suited for, someone career-driven or someone who desired a good work-life balance.

Personality attributes. A 125-item set of personality attributes forming six scales were rated on 7-point Likert scales (1 = not at all, 7 = extremely) as to the degree the participant believed the target possessed the particular trait. Personality attribute items

⁴ As one randomization sequence sorted participants into either Study 3 or Study 4, the group of disqualified participants discussed in Study 3 is shared by Study 4.

were taken from scales used in Study 2. These scales included the female prescription (23 items) and proscription (9 items) scales derived from Prentice and Carranza (2002), the warmth (6 items) and competence (6 items) scales from the Stereotype Content Model (Fiske, et al., 2002), and the independent and non-communal (15 items) and uncompromising (14 items⁵) scales that emerged from the discriminant function analysis performed on the female target data from Study 2. The remaining items were derived from the male prescription (29 items) and proscription (12 items) scales based on Prentice and Carranza (2002), and the family oriented (13 items⁶) and peculiar and peevish (15 items) scales that emerged from the discriminant function analysis performed on the male target data from Study 2. These additional items served to standardize the length of Study 3 with that of Study 4, and to allow for future exploratory analyses (not included in this dissertation) contrasting the female target data from Study 3 with the male target data from Study 4. Items were randomized sequence within each page, with page order also randomized. Between-page randomization was split so that pages featuring exploratory items appeared after the final page of items of primary interest.

Liking scale. A liking scale was formed using four measures which measured the degree to which the participant considered the target to be liked, and was adapted from measures from Moss-Racusin et al.'s (2010) study of backlash against modest men. Two measures concerned the degree to which the participant believed the target was liked by her bosses and coworkers, and subordinates or students, respectively. The other two measures also used 7-point Likert scales, and concerned how much the participant liked

⁵ One item, "Young," was removed from the scale, as the employee vignette states the age of the target.

⁶ Two items, "Married" and "Single," were removed from the scale, as the employee vignette states the marital status of the target.

the target, and how much the target is the kind of person the participant would like to get to know better. Each measure features a 7-point Likert scale, in which 1 = not at all, and 7 = extremely.

Respect scale. A respect scale was formed using four measures which measured the degree to which the participant considered the target to be respected. These measures were variants of the measures used in the liking scale, and included the degree to which the participant believed the target was respected by her bosses and coworkers, by subordinates or students, and how much the participant respected the target. The fourth item varied by experimental condition. In the Kindergarten teacher condition, the participant was asked the degree to which he or she would want the target as his or her child's Kindergarten teacher, and in the consultant condition, the participant was asked how much he or she would want the target to be his or her consultant. This second item is adapted in part from Cuddy et al.'s (2004) study of gender, parenting status, and employment. Each item was rated on a 7-point Likert scales, in which 1 = not at all, and 7 = extremely.

Employee measures. Four measures concern the target's future plans and prospects. Each of these measures used a 7-point Likert scale (1 = not at all likely, 7 = extremely likely). Three questions included the degree to which the participant believed the target will have a (or another) child, voluntarily switch to a reduced-hours position or leave the workplace entirely within the next few years, and seeking career advancement in the future. The final question, adapted in part from Cuddy et al. (2004), measured the degree to which the participant believes the target's company should invest resources in her professional development.

Salary. A continuous scale was used to measure the salary the participant believes that the target deserves. Specifics of the salary measures differed by experimental condition, with the teacher salary range (lower bound = \$26,000, upper bound = \$102,000) being lower than the consultant salary range (lower bound \$65,000, upper bound = \$150,000). The instructions to the question specified the salary range for "most" workers in the position. Subjects could select a value below or above the "typical" range.

General demographics. At the end of the study, the participants provided demographic information (see Appendix V). Questions pertained to the participant's gender, age, education, race/ethnicity, student status, marital status, parenthood status and parenthood intent, and familiarity with the professions and industries used in the study.

Employer scenario – Kindergarten teacher. The Kindergarten teacher position was selected as a job that requires nurturing traits (Colker, 2008) and requires interaction with children, both female prescriptions. In addition, while the position can lead to opportunities to advance within the education sector (White, 2014), it does not follow a career-ladder promotion system. As Study 2 results suggested mothers are stereotyped as being more nurturing and family-oriented, and less career-focused, compared to childless-by-choice women, the Kindergarten job should maximize differences between target members of those two groups. The text of the Kindergarten teacher position can be found in Appendix L.

Employer scenario – consultant. The business consultant position was selected as a job that requires agentic traits, as it is career-oriented, demanding, and requires ambition to advance (Bureau of Labor Statistics, 2014; Griswold, 2014). This specifically capitalizes on the differences in stereotypes between mothers and childless-by-choice

women as found in Study 2, which suggest that childless-by-choice women are perceived as possessing greater levels of career-oriented traits than mothers. Consulting has been used in prior employment research (Cuddy et al., 2004) a "professional job" in a study of perception of gender and parenting status in a hiring scenario. The text of the consultant position description can be found in Appendix N.

Worker vignettes. The vignettes that described the workers for the positions consisted of a single paragraph containing the employee's work history, job responsibilities, hobbies, marital status, and parenting status. Vignettes were standardized within each position, so that the only difference within each job condition was the employee's parenting status. All employees were described as being a 32 year old married women named Jennifer. The text of the Kindergarten teacher vignettes can be found in Appendix M, and the consultant vignette can be found in Appendix O.

Procedure. Upon clicking the invitation link on Mechanical Turk's website, subjects landed on the main study page. Consent was obtained via online form. Upon affirmative consent, subjects were randomly assigned to one of the twelve conditions that comprise the six female and six male targets of Studies 3 and 4, respectively, who work as a Kindergarten teacher or financial consultant, and are either parents, childless, or childless-by-choice. Subjects were then given the instructions to the study, the employer description, the employee vignette, and the first of the personality attribute ratings pages. Upon completing the final ratings page, the subject continued to the liked and respected scale measures, employee-related measures, and the salary measure. A set of attention check questions, a set of measures concerning the nature of the job, and the demographics questions followed. The subject was then debriefed online, completing the study.

Results

Preliminary Analyses

Prior to testing the main hypotheses regarding parenting status, three sets of preliminary analyses were conducted. The first set concerned whether or not the occupations selected for the study were perceived as intended in terms of the relative importance of ambition, career drive, nurturing, and desire for work-life balance for each position. Results suggested the occupations were perceived as intended. The second set were reliability analyses conducted on the female prescription, proscription, independent and non-communal, uncompromising, warmth, competence, liked, and respected scales. Results suggested that all of the scales were internally consistent. The third set were correlation analyses between the eight scales. Results suggest that the scales are neither completely independent of one another, nor entirely redundant to one another. A detailed account of the preliminary analysis follows.

Occupation measures. The six occupation measures were analyzed by occupation (two levels) using MANOVA. Hotelling's Trace was significant, F(6, 422) = 279.51, p < .001. A series of independent-samples t-tests were then conducted between teacher targets and consultant targets on each of the six occupation measures, the results of which can be found in Table 19. Kindergarten teachers were perceived to require being more of a nurturing person, less of an ambitious person, and more nurturing as compared to ambitious, as compared to consultants. Furthermore, compared to the job of consultant, the job of Kindergarten teacher was perceived as better suited for someone desiring a good work/life balance, worse suited for someone career driven, and more suited for someone seeking work/life balance as compared to someone with a high career drive.

Each t-test was significant at the p < .001 level, and effect sizes as measured by Cohen's d ranged from 1.57 (work/life balance) to 3.47 (nurturing compared to ambition), suggesting large effects. The results of these tests suggest that Kindergarten teachers are perceived differently than financial consultants, in ways consistent with the aims of this study.

Reliability analyses. Reliability analyses were conducted on the female prescription, female proscription, independent and non-communal, uncompromising, warmth, competence, liked, and respected scales. Cronbach's alpha ranged from a low of .75 for the uncompromising scale to a high of .92 for the female prescriptions scale. Based on these results, each of the tested scales may be considered reliable. Table 20 presents the reliability coefficient, mean, and standard deviation for each scale.

Correlation analyses. Correlations between the eight scales range from an absolute value of .08 to an absolute value of .91. Of the 28 correlations across all scales and target groups, 27 are significant at the p < .01 level, and 26 are significant at the p < .001 level. Seven of the 28 correlations have an absolute value of .70 or better. The pattern of correlations suggest that the scales show overlap but also have some independence. Correlations can be found in Table 21.

Hypothesis testing. A 2 (occupation) x 3 (parenting status) MANOVA was performed on the 8 scales. A main effect was found for Parenting Status, Wilks' Lambda = .56, F(16, 832) = 17.39, p < .001. A main effect was also found for Occupation, Wilks' Lambda = .327, F(8, 416) = 107.16, p < .001. Additionally, there was a significant interaction effect, Wilks' Lambda = .89, F(16, 832) = 3.10, p < .001. This provided the justification to analyze each scale using univariate ANOVA.

For each of the six scale scores, I performed a 2 (occupation) x 3 (target group parenting status) univariate ANOVA. Follow-up Tukey's HSD tests, simple effects analyses, and Fisher's LSD tests were performed as needed. Results are summarized below. Significance is determined at the p < .05 level unless specified otherwise. As parenting status differences are my primary focus, significant differences based solely on occupation will generally not be discussed. Complete statistical results can be found in the Appendix as listed.

Main analyses

Analyses of the personality trait based scales used in Study 2 will be discussed first, beginning with the female proscription and female prescription scales. This will be followed by Stereotype Content Model warmth and competence scales, and the independent and non-communal and uncompromising scales. Results of these analyses can be found in Tables 22 and 23. Analyses of workplace-relevant scales will then be discussed, beginning with how much the target was liked and respected, and followed with analyses of single question employee-related measures. Results of these analyses can be found in Tables 24 through 26.

Female proscriptions and prescriptions. In hypothesis one, I predicted that childless-by-choice women would be stereotyped as being higher in female proscriptive traits, and lower in female prescriptive traits, than mothers. In terms of female proscriptions, there was neither a main effect for parenting status, nor an interaction effect between parenting status and occupation. A main effect for parenting status was found for female prescriptions, p < .01, $\eta^2 = .02$, however, as mothers had significantly higher scores than childless-by-choice women. Effect size was moderate, Cohen's d = .02

0.46. Taken together, only partial support was provided for these aspects of my first hypothesis.

Warmth and competence. I had hypothesized that mother targets would be perceived as warmer than childless-by-choice targets. This hypothesis was not supported, however, as neither a main effect for parenting status, nor an interaction effect between parenting status and occupation, was found. Similarly, there was neither a main effect for parenting status, nor an interaction effect between parenting status and occupation, for perceived competence.

Empirically-derived scales. I had hypothesized that childless-by-choice targets would be perceived as more independent and non-communal than mother targets. Both a main effect for parenting status, p < .001, $\eta^2 = .18$ and an interaction effect between parenting status and occupation, p < .001, $\eta^2 = .02$ were found. Simple effects tests and Fisher's LSD tests for each occupation revealed that childless-by-choice women had higher scores than childless women and mothers; childless women also had significantly higher scores than mothers. Effect sizes were larger for the simple effects tests using consultants ($\eta^2 = .50$) compared to that of teachers ($\eta^2 = .18$). Similarly, effect sizes comparing parenting statuses for consultants were greater than those of teachers, though Cohen's ds were large for all six analyses. Effect sizes for the comparisons for consultants ranged from 1.23 to 2.33, while comparisons for teachers ranged from 0.78 to 1.53. For both occupations, comparisons between mothers and childless-by-choice women had the largest effect. These results support my hypothesis. In addition, analyses using the uncompromising scale revealed a main effect for parenting status, with mothers scoring significantly lower than childless-by-choice women. Effect sizes for both the

main effect ($\eta^2 = .01$) and the comparison of mothers to childless-by-choice women (Cohen's d = .36) were small.

Liked and respected scales. In hypothesis two, I predicted an interaction effect, so that the childless-by-choice consultant would be liked more than the mother consultant, but the mother Kindergarten teacher would be liked more than her childless-by-choice counterpart. While there was no interaction effect, there was a main effect for parenting status; post hoc tests revealed that mother targets were liked more than childless-by-choice targets. While my prediction of an interaction was inaccurate, the portion that pertained to Kindergarten teachers was accurate. Effect sizes for both the main effect ($\eta^2 = .01$) and comparison between mothers and childless-by-choice women (Cohen's d = .00), were small.

I had predicted a similar pattern in regards to perceived respect for the target, with the childless-by-choice consultant expected to be more respected than the mother consultant, and the childless-by-choice Kindergarten teacher being less respected than the mother teacher. As there was neither a main effect for parenting status, nor an interaction between parenting status and occupation, my hypotheses were not supported.

Employee-related measures. Five measures related to employee perception and evaluation did not fit conceptually into scales and were analyzed individually. These measures concerned the target's future life and employment plans, value to her employer, and salary. Four measures were analyzed using a 2 (occupation) x 3 (parenting status) univariate ANOVA, and followed up with Tukey's HSD tests, simple effects tests, and Fisher's LSD tests as warranted. Salary was analyzed using 3 group (parenting status) one-way ANOVAs for each occupation. All significance levels are at the p < .05 level

unless otherwise specified. Main effects for occupation are not a focus of this dissertation, and will not be discussed in depth. Complete data tables can be found in the Appendix as listed.

Likelihood of seeking promotion. In hypothesis four, I predicted that childless-by-choice targets would be perceived as more likely to seek promotion than mother targets.

This hypothesis was not supported, as neither a main effect for parenting status, nor an interaction effect between parenting status and occupation was found.

Employer resources. Neither a main effect for parenting status, nor an interaction of parenting status and occupation, was found for a measure regarding the degree to which the employer should devote resources to the target's training.

Reduction of hours or leaving workforce. A main effect for the likelihood of the target voluntarily reducing her hours or leaving the workforce entirely was found for parenting status, p < .001, $\eta^2 = .08$. Childless-by-choice targets were perceived as less likely than mothers or childless women to take these actions. Effect sizes were moderate to large, with Cohen's d ranging from .54 to .74. Mothers did not differ significantly from childless women on this measure.

Procreative intent. There was both a main effect for parenting status, p < .001, $\eta^2 = .45$ and an interaction effect between parenting status and occupation p < .001, $\eta^2 = .01$ on a measure concerning how likely the target was perceived to be to have a child in the near future. Post hoc tests revealed that for both the main effect and the simple effects for each occupation, childless-by-choice targets were perceived as being significantly less likely than mothers or childless targets to have a child in the near future. Effect sizes for these comparisons were very large, with Cohen's d ranging from 1.93 to 2.93. Also,

while post hoc results for the main effect showed mothers as significantly more likely to have another child than the childless targets, post hoc tests for both simple effects tests were not significant for this comparison.

Salary. I had hypothesized that the childless-by-choice target would be perceived as deserving a significantly higher salary than the mother target when portrayed as a consultant, and a significantly lower salary than the mother target when portrayed as a teacher. There were no significant differences in salary between parenting status groups in either the teacher or consultant conditions; as such, my hypotheses were not supported.

Discussion

The main purposes of Study 3 were twofold. First, it sought to determine if the pattern of parenting status-based stereotypes that emerged for the target groups in Study 2 would also be present using target individuals; second it sought to determine if parenting status differences resulted in prejudice and judgments implying the possibility of employment-based repercussions. Subjects read a vignette describing a female employee who works either as a Kindergarten teacher or a financial consultant. The employee was described as either being a mother to one child, being currently childless, or as having decided never to have children. Participants rated personality attribute items as to how characteristic of the employee they believed each item to be, as well as items regarding their inferences and judgments of the degree to which the employee was liked and respected, the salary the employee deserves, and the employee's future in terms of family and career. Results partially confirmed my hypotheses.

A first point of comparison is between the target group level results of Study 2 and the target individual level results of Study 3. In both studies, women were not found to differ by parenting status in terms of female proscriptions, while mothers were perceived as possessing higher levels of female prescriptive qualities compared to childless-by-choice women. This is to say, at both the group and individual level, mothers were seen as possessing higher levels of communal and family oriented traits (e.g., polite, interest in children) compared to the childless-by-choice, but were not seen as possessing different levels of female proscriptive traits (e.g., rebelliousness, cynicism). As such, my hypothesis regarding the pattern of data for female prescriptions was confirmed, while

my hypothesis regarding the pattern of data for female proscriptions was not. This appears to be a novel finding, as prior research has not reported this difference.

In terms of warmth and competence, results differed in part between Studies 2 and 3. While significant differences between female parenting status groups did not emerge for competence in either study, mothers were found to be warmer than childless-by-choice women at the group level (Study 2) but, contrary to my hypothesis, not the individual level (Study 3). Study 3's results contrast with much of the stereotype research of childless-by-choice women (e.g., Jamison, et al., 1979; LaMastro, 2001; Lampman & Dowling-Guyer, 1995; Veevers, 1973). It is possible that the group label of "childless-by-choice women" brings to mind a stereotype of women being less warm than mothers or childless women, but the descriptions of the targets as employees in each field did not bring those stereotypes to mind. The main effect for occupation on warmth in Study 3, in which teachers were perceived as warmer than consultants, suggests this may be the case. That is to say, stereotypes of warmth of teachers and consultants may supersede stereotypes of warmth based on parenting status for women in those careers.

The last common scales between Studies 2 and 3, the empirically-derived independent and non-communal and being uncompromising, had the same pattern of results in both studies. First, all three respective target groups and target individuals differed significantly from one another in terms of being independent and non-communal, with the childless-by-choice having the highest score, and the mothers having the lowest. This result is consistent with some prior stereotype research that deems childless-by-choice women as being career-focused, not communal (e.g., Lampman & Dowling-Guyer, 1995), and higher in agentic traits (e.g., Polit, 1978) as compared to mothers. In

addition, childless-by-choice targets were perceived as more uncompromising than mothers. In light of the lack of significant difference in female proscriptions, this may suggest that compared to mothers, childless-by-choice women are more direct and are not deferential in their demeanor, without necessarily acing contrary to societal expectations. It is possible that the uncompromising scale and the female proscriptions scale are measuring different underlying concepts, despite a relatively strong level of correlation (r = .67, Study 2, r = .80, Study 3). While the female proscriptions scale includes items that largely denote a kind of indirect attempt at dominance (e.g., stubborn, arrogant, self-righteous, controlling), the uncompromising scale includes items denoting more direct and aggressive manifestations of dominance (e.g., intimidating, ruthless, outspoken).

This pattern of results provides an interesting context for the results of the employee-related items. Parenting status difference were not significant for measures relating to how much the target is respected, the level of resources her employer should devote to her, or her perceived interest in seeking a promotion. Mothers were liked more than childless-by-choice women, were perceived as more likely to have a child in the future, and were perceived as more likely to reduce her hours or leave the workforce. Furthermore, salary did not differ significantly by parenting status within each occupation.

On the whole, these result are somewhat counterintuitive, given the results of the personality attribute scales as well as prior research. The results suggest that compared to mothers, childless-by-choice women are closer to being the "ideal worker" (Crittenden, 2001). The childless-by-choice are more career-driven and more direct in their demeanor, qualities that should indicate a better "fit" (Heilman, 2001), especially for the

consultant position. They are perceived as less likely to reduce hours or leave the workforce, and less likely to have a child, which should suggest greater dedication to her career. Despite these differences, childless-by-choice workers did not differ significantly from mothers in terms of being respected as an employee, how much her employer should dedicate to her training, her perceived ambition to advance, or her compensation. While mothers may not have been expected to face a "maternal wall" (Crosby, et al., 2004) in the more work-life friendly occupation of Kindergarten teacher, it is somewhat surprising that, contrary to previous research, they did not face one in the more all-consuming consultant position (Cuddy, et al., 2004).

While care must be taken in interpreting the null findings of the employee measures, it is of interest to speculate about the implications that would follow were they to reflect truly null relationships between the parenting status of female target group members and the respective measures. The measures for which the female target group members did not differ may be classified as being directly related to competence as an employee. The competence scale of the Stereotype Content Model as well as the respected scale may be most on point, but dedication of employer resources may also qualify. The employee's likelihood of seeking promotion may serve as a proxy for the employee's confidence in her competence, and her deserved compensation may be seen as a reward for it. In contrast, while mothers were liked more than childless-by-choice women, being liked is not necessarily a reflection of perceived competence. Likewise, while childless-by-choice women are perceived as more independent and non-communal, less likely to reduce hours or leave the workplace, or have a child as compared to mothers, these elements may reflect differences in the perception of the target's focus on

her career rather than her actual job performance. This is to say, childless-by-choice women may be perceived as focusing their energies solely on their careers rather than dividing them between work and family, but this single-minded focus may not suggest any greater skill at her occupation than the presumably more balanced lifestyle of mothers.

Another possible limitation is the study design, which was between-subjects rather than within-subjects. A within-subjects design, while greatly increasing the length of the study, could have allowed for the participant to rate the targets in comparison to previously-rated targets. For example, a participant may have given a higher salary to the target of parenting status group he or she believed deserved it the most, thereby making it easier to elicit salary discrimination. A within-subjects design would have helped determine the levels to which the participants were likely to stereotype, be prejudicial against, or discriminate against targets on the basis of parental status, rather than simply determine if those attitudes were occurring in aggregate between parenting status groups.

We now turn our attention to Study 4, which follows the procedures of Study 3, but with male targets rather than female targets.

Study 4

The purposes of Study 4 mirror those of Study 3, and the study used the same materials, measures, and procedures as Study 3, with two key differences. First, the employee information in the vignettes was changed to reflect a male target, Michael, and his wife. Second, item comprising the two empirically-derived scales in Study 4 reflect the results of the discriminant function analyses using the male target group data from Study 2, rather than the female target group data.

My hypotheses for Study 4 were as follows:

Hypothesis 1: As with the female targets in Study 3, differences in perceptions of target individuals' personality attributes were expected to follow the same pattern as was found for differences in stereotype content of the respective target groups in Study2. Specifically, the childless-by-choice target will be stereotyped as possessing less warmth, and a lower family-orientation, as compared to the father target.

Hypothesis 2: Unlike in Study 3, job type was not expected to interact with target parenting status in terms of prejudice. Specifically, the childless-by-choice man will be less liked than the father in both the Kindergarten teacher and consultant positions.

Hypothesis 3: An interaction was expected between job type and parenting status in terms of the perception of the target's work reputation. The father will be perceived as more worthy of respect, command a higher salary, have greater long-term value to the employer, and be more likely to seek advancement as compared to the childless-by-choice target, in the Kindergarten teacher position. Differences between fathers and childless-by-choice men are not predicted to occur in these areas for the consultant position.

Method

Participants. Three hundred eighty-six qualified participants (256 women, 130 men) recruited from Amazon's Mechanical Turk served as the sample, who participated in the online study via SurveyGizmo, a web study hosting service. The sample was primarily Caucasian (n = 339, 88%), with 27 African-Americans (7%), 25 Asians (7%) 9 American Indians and American Natives (2%), and 3 (1%) participants identifying as "Other" comprising the rest of the sample. In addition, 25 participants (7%) identify as Hispanic. Participant age ranged from 18 to 76 years, with a median age of 34 years, a mean age of 38.07 years, and a standard deviation of 13.83 years. In terms of marital status, 155 (40%) single participants and 166 (43%) participants in marriages, civil unions, or domestic partnerships comprised most of the sample, with the remainder being divorced (n = 52, 14%), widowed (n = 10, 3%), or separated (n = 3, 1%). The remaining sample consisted of 52 (14%) divorced participants, 10 (3%) widowed participants, and 3 (1%) separated participants. Parents (n = 198, 49.0%) comprised nearly half the sample. In term of the non-parents, 85 (22%) were either positive or pretty sure they will have children in the future, 79 (20%) were positive or pretty sure they will not have children in the future, and 33 (9%) were undecided on the matter. In order to qualify, a participant must have been an American citizen or legal resident, aged 18 or older, who was able to understand English. All measures and materials, including informed consent and debriefing, were completed on the SurveyGizmo website. Participants received \$0.75 for their participation in the study, which lasted approximately 25 minutes.

Measures, materials, and procedure. All measures, materials, and procedures were the same as in Study 3, with the exception of four scales, and the items that comprise those scales.

Personality attribute scales – differences from Study 3. As in Study 3, a 125-item set of personality attribute was rated on 7-point Likert scales (1 = not at all, 7 = extremely) as to the degree the participant believed the target possessed the particular trait. The scales using items from the Stereotype Content Model's warmth and competence scales (Fiske, et al., 2002), and the liked and respected items used to create scales from the employee-related items in Study 2, remain the same. Scales based on the personality attribute items from the female prescriptions and proscriptions scales derived from Prentice and Carranza (2002), as well as the items that emerged from Study 2's discriminant analyses on the personality attribute items performed on the female target data, were not analyzed. In their place, the items that formed the scales in Study 2 concerning male prescriptions (29 items) and proscriptions (12 items), and the familyoriented (13 items) and peculiar and peevish (15 items) scales that emerged from Study 2's discriminant analysis performed on the male target data, were used. As with Study 3, the items from the four female-focused scales were rated by participants, but the data from those scales were not analyzed in this dissertation.

Results

Preliminary Analyses

As with Study 3, prior to testing the main hypotheses regarding parenting status, three sets of preliminary analyses were conducted. These preliminary analyses concerned the perception of the occupations, reliability analyses on the scales used for hypothesis testing, and correlation analyses between the eight aforementioned scales.

Occupation measures. The six occupation measure items were analyzed by occupation (two levels) using MANOVA. Hotelling's Trace was significant, F(6, 379) =241.36, p < .001. A series of independent-samples t-tests were conducted between teacher targets and consultant targets on each of the six occupation measures, the results of which can be found in Table 27. These results mirror those found in the analyses of occupation measures in Study 3. Once again, Kindergarten teachers were perceived to require being more of a nurturing person, less of an ambitious person, and more nurturing as compared to ambitious, when compared with consultants. Additionally, compared to the job of consultant, the job of Kindergarten teacher was perceived as better suited for someone desiring a good work/life balance, worse suited for someone career driven, and more suited for someone seeking work/life balance as compared to someone with a high career drive. Each t test was significant at the p < .001 level, and effect sizes as measured by Cohen's d ranged from 1.71 (work/life balance) to 3.27 (nurturing compared to ambition), suggesting large effects. Just as in Study 3, the results of these tests suggest that Kindergarten teachers were perceived differently than financial consultants, in ways consistent with the aims of this study.

Reliability analyses. Reliability analyses were conducted on the male prescription, male proscription, family-oriented, peculiar and peevish, warmth, competence, liked, and

respected scales. Table 28 presents the reliability coefficient, mean, and standard deviation for each scale. Cronbach's alpha ranged from a low of .53 for the peculiar and peevish scale to a high of .93 for the male prescriptions scale. The reliability score for the peculiar and peevish scale was considerably lower than that of the next lowest scale, .80 for male proscriptions Based on these results, caution should be used when interpreting the results of analyses using the peculiar and peevish scale.

Correlation analyses. Correlations between the eight scales range from an absolute value of .04 to an absolute value of .85. Of the 28 correlations across all scales and target groups, 25 were significant at the p < .01 level, and 24 were significant at the p < .001 level. Four of the 28 correlations had an absolute value of .70 or better. The pattern of correlations suggest that the scales are generally, but not always necessarily, distinctive. Correlations can be found in Table 29.

Hypothesis testing. A 2 (occupation) x 3 (parenting status) MANOVA was performed on the 8 scales. A main effect was found for Parenting Status, Wilks' Lambda = .51, F(16, 746) = 18.43, p < .001. A main effect was also found for Occupation, Wilks' Lambda = .33, F(8, 373) = 94.74, p < .001. There was a significant interaction effect, Wilks' Lambda = .81, F(16, 746) = 5.17, p < .001. This provided the justification to analyze each scale using ANOVA.

For each of the six scale scores, I performed a 2 (occupation) x 3 (target group parenting status) univariate ANOVA. Follow-up Tukey's HSD tests, simple effects analyses, and Fisher's LSD tests were performed as needed. Results are summarized below. Significance is determined at the p < .05 level unless specified otherwise. As

parenting status differences are my primary focus, significant differences based solely on occupation will generally not be discussed.

Main analyses

Results for the main analyses will follow the same order as that of Study 3.

Analyses of the personality trait based scales used in Study 2 will be discussed first, beginning with the male proscription and male prescription scales. This will be followed by the warmth and competence scales, and the family orientation and peculiar and peevish scales. Analyses of workplace-relevant scales will then be discussed, beginning with how much the target was liked and respected, and followed with analyses of single question employee-related measures.

Male proscriptions and prescriptions. I did not have a priori hypotheses concerning the male prescription and proscription scales. There was no main effect for parenting status, nor an interaction of parenting status with occupation, for either the male prescriptions or proscriptions scales.

Warmth and competence. I had hypothesized that fathers would be perceived as warmer than childless-by-choice men. I did not make any predictions regarding competence. There was a main effect for parenting status on the warmth scale. The effect size for the main effect was small ($\eta^2 = .02$). Consistent with my hypothesis, fathers were perceived as warmer than childless-by-choice men. The effect size for this comparison was relatively small as well (Cohen's d = 0.31). There was no main effect for parenting status, nor an interaction effect between parenting status and occupation, for the competence scale.

Empirically-derived scales. I hypothesized that fathers would be perceived as being higher in family orientation than childless-by-choice men. There was a main effect for parenting status, p < .001, $\eta^2 = .21$; fathers indeed scored higher on perceived family orientation compared to childless-by-choice men. The effect size was small-to-moderate, Cohen's d = .42. There was also an interaction between parenting status and occupation, p < .001. A simple effects test for the consultant occupation found a significant difference between parenting statuses for consultants, p < .001, $\eta^2 = .19$ with fathers scoring significantly higher than childless-by-choice men. No significant difference was found for teachers.

Analysis of the peculiar and peevish scale yielded no main effect for parenting status, but did demonstrate an interaction effect between parenting status and occupation, p < .01, $\eta^2 = .02$. Simple effects analyses by occupation revealed no differences among parenting status targets for either position. Simple effects analyses by parenting status did reveal significant differences between occupations, with consultants perceived as more peculiar and peevish than teachers for fathers, childless, and childless-by-choice men.

Liked and respected. In hypothesis two, I predicted that fathers would be more liked than childless-by-choice men. There was a main effect for parenting status on the liked scale, p < .05, $\eta^2 = .02$, and post hoc tests revealed that fathers were indeed liked more than childless-by-choice men. The effect size was relatively small for this comparison, Cohen's d = 0.31.

In terms of respect for the target, I had predicted an interaction, specifically that the father teacher would be more respected than the childless-by-choice teacher. I did not

predict a difference in respect among consultants. There was neither a main effect for parenting status, nor an interaction between parenting status and occupation on this measure. My hypothesis is therefore not supported.

Employee-related measures. I had hypothesized that the teacher father would be more likely to seek advancement, be perceived as a better target of his employer's resources, and have a higher salary, as compared to the childless-by-choice teacher. I did not predict any differences among consultants. There were no main effects for parenting status, nor interaction effects between parenting status and occupation, for seeking promotion or employer resources, nor was there a significant difference between parenting status groups in terms of salary for either occupation. In addition, there was neither a main effect nor interaction effect on the measure of likelihood of the target reducing his hours or dropping out of the workforce.

One measure, parenting intent, had both a main effect for parenting status, p < .001, $\eta^2 = .62$ and an interaction effect between parenting status and occupation, p < .01, $\eta^2 = .01$. Differences were found for each occupation using simple effects analyses, ps < .001. Effect sizes were very large for both occupations, with eta-squared ranging from .58 to .95. In each case, the childless-by-choice targets were perceived as significantly less likely than fathers or childless targets to have a child in the near future. Effect sizes were very large, with Cohen's d ranging from 2.38 to 3.17. In addition, post hoc analyses revealed that for the main effect and for consultants, but not for teachers, childless targets were perceived as less likely to have a child than fathers.

Discussion

As was the case in Study 3, the main purposes of Study 4 were to determine if the pattern of parenting status-based stereotypes that emerged for the target groups in Study 2 would also be present using target individuals, and to determine if parenting status differences resulted in prejudice and employment-based repercussions. Subjects read vignettes describing a father, childless, or childless-by-choice man employed as a Kindergarten teacher or consultant. Participants rated personality attribute items as to how characteristic of the employee they believed each item to be, items concerning the degree to which the participant believed the employee was liked and respected, items concerning the participant's perspective of the target's future prospects for work and family life, and the salary the participant believed the target deserved. Results partially confirmed my hypotheses.

Looking first at the a priori scales that were used in both Study 2 (target groups) and Study 4 (target individuals), results from both studies were very similar. No differences between parenting status target groups or target individuals were found for male prescriptions or male proscriptions. This is in contrast with prior research (LaMastro, 2001; Lampman & Dowling-Guyer, 1995) that found childless-by-choice men to be considered less agentic than fathers, which would suggest a lower rating on the male prescriptive scale. Prior research also suggested that fathers would be perceived as warmer (or more nurturing or communal) than childless-by-choice men (Jamison, et al., 1979; LaMastro, 2001; Lampman & Dowling-Guyer, 1995; Polit, 1978). This was supported by results on the Stereotype Content Model warmth scale (Cuddy, et al., 2004) for both Studies 2 and 4. While differences in group stereotypes using the family-

oriented scale for fathers and childless-by-choice men also supported this prediction in Study 2, only partial support emerged for the target individuals in Study 4. Parenting status interacted with occupation on this measure, as fathers employed as consultants were perceived as more family oriented than childless-by-choice men, but no differences emerged for Kindergarten teachers. One potential explanation for this discrepancy is that a stereotype of male Kindergarten teachers as family-oriented may be compensating for the relative lack of that trait typically attributed to childless-by-choice men.

The results of the analyses of the peculiarity and peevishness scale also differed between Studies 2 and 4. In Study 2, childless-by-choice men were rated higher than childless men and fathers in peculiarity and peevishness. In Study 4, however, there was no main effect for parenting status. There was an interaction between parenting status and occupation, though there was no simple effect for parenting status on either financial consultants or Kindergarten teachers. There was a simple effect for occupation on each of the three parenting statuses, with consultants rating higher than teachers for each. It is possible participants considered particular items within the scale, such as being a perfectionist or being choosy, as being appropriate qualities when dealing with corporate clients rather than with young children. Similar to the case with the family orientation scale, occupation-based stereotypes may be driving impression of the targets more so than parenting status-based stereotypes (Fiske, Neuberg, & Beattie, 1987).

Taken as a whole, the pattern of results for the personality-trait focused scales using male target individuals does not suggest that parenting status results in many differences in stereotypes between fathers, childless men, and childless-by-choice men. They did not differ significantly in perceived levels of male prescriptive traits, proscriptive traits, or

competence. Furthermore, some of the differences in parenting status stereotypes that exist at the group level, such as family orientation, may have been weakened or obviated as a result of the man's occupation. Fathers are, however, consistently perceived as warmer than childless-by-choice men.

Despite a relative lack of differences in personality-trait stereotypes between male parenting status groups, some differences did emerge in perceptions of the men as employees. Father targets were more liked than male childless-by-choice targets, though there were no differences between parenting status groups regarding how much the men were respected. There were no differences between male parenting status groups in terms of how likely a man was perceived to seek a promotion at work, or how much the man's employer should focus on the man's professional development. Unlike the female target individuals in Study 3, male targets did not differ in terms of the perceived likelihood of reducing hours or leaving the workforce. Specifically, while mothers were seen as more likely than childless-by-choice women to reduce hours, fathers did not differ from childless-by-choice men.

It may be useful to consider the target gender difference in perceived likelihood of reducing hours or leaving the workforce in the context of perceived procreative intent.

For the male targets in Study 4 and the female targets in Study 3, childless-by-choice targets were perceived as being the least likely to have a child in the future. It is possible that while parents and childless individuals of both genders are seen as more likely to have a child in the future as compared with their childless-by-choice counterparts, only the mothers and childless women are expected to reduce their hours or stop working to accommodate this change. As the two questions were not directly linked in my studies,

however, it is not clear that the participants necessarily intended to associate a potential reduction of employment with the likelihood of having a (or another) child. Caregiving, even outside of child-rearing, can lead to role conflict with outside employment.

Caregiving responsibilities tends to be undertaken by women more so than men, and women more so than men sacrifice employment to focus on caregiving (Henz, 2006; Y. Lee & Tang, 2013). It is therefore possible that participants viewed a childless-by-choice women as less likely than a childless women or a mother to sacrifice her career for anyone, potentially including people other than offspring who might need care, such as elderly or sick family members. The rejection of the "motherhood mandate" (Russo, 1976) could signal an inclination to violate other aspects of the societal expectation of caregiving. Since men are not subject to the same societal expectations towards caregiving, fatherhood or potential fatherhood might not signal an inclination towards general caregiving such that it would impact his career decisions.

Taking that into account, the lack of significant difference in salary between male targets is not as surprising as it was for the female targets in Study 3. Parenting status did not affect how men were perceived in terms of their likelihood to seek promotion, or the likelihood of reducing hours or leaving the workforce. Fathers who were consultants were perceived as more family-oriented as compared to childless and childless-by-choice male consultants, but it appears that participants did not interpret that family orientation as leading to fathers reducing their hours or leaving the workforce.

This provides an interesting juxtaposition. Fatherhood was linked to an increase in family orientation and greater likelihood of having another child in the future, but this did not result in harm to fathers' financial compensation or long-term potential as employees.

Childless-by-choice women were perceived as being more independent and non-communal and less likely to reduce their hours or leave the workforce as compared to mothers, but this did not result in childless-by-choice women receiving greater financial compensation or greater perception of long-term potential as an employee. In short, results of my studies suggest that parental responsibilities did not disadvantage fathers in the workplace, and a lack of parental responsibilities did not benefit childless-by-choice women in the workplace.

General Discussion

This dissertation accomplished two main purposes. First, it characterized the content of stereotypes of groups who differed by gender and parenting status, and how stereotypes differed between those groups. This was done via free response (Study 1) and through the use of rating scales (Study 2). Second, I studied the perceptions of individual women (Study 3) and men (Study 4) who differed by parenting status, in the context of simulated employee evaluation scenarios. This consisted of examining the perceptions of the personality characteristics of the target individuals, as well as evaluations of their work performance and potential.

In Study 1, free response results indicated similarities in the content of stereotypes between mothers and fathers, and between the four non-parent groups. Broadly speaking, mothers and fathers were stereotyped with communal traits, while the non-parent groups were stereotyped with agentic traits. This is interesting, in that the content of stereotypes of the groups aligned much more on the basis of parenting status than they did on the basis of gender. This is similar to the results found by Callan (1985), in which men and women of different parenting status groups (e.g., childless-by-choice, parents of two children) aligned far more by parenting status than by gender in multidimensional stimulus space in terms of perceived personality attributes. Beyond that, specifics that emerged from Study 1's results also coincided with Callan's (1985) findings. In Callan's study, childless men and women aligned closest to a dimension of loneliness, and childless-by-choice men and women aligned closest to dimensions of career orientation, individualism, materialism, and selfishness. In my results, the stereotype of "lonely" was only found for childless men and women. Childless-by-choice men and women,

meanwhile, were stereotyped with traits that included selfishness, career-orientation, and being independent. In that regard, it appears that some stereotypes of these groups remain consistent, even after three decades.

In Study 2, rating scales were used to determine the content of stereotypes for the six target groups. A number of results from this study add to the body of knowledge of parenting status stereotypes. First, the relationship between female parenting status groups and female and male prescriptions is complex. In terms of female prescriptions, childless women are stereotyped as having significantly lower levels than mothers, and significantly higher levels than childless-by-choice women. In that sense, for women, parenthood adds to the perception of fulfilling female societal expectations, and being definitively childless-by-choice detracts from it. In terms of male prescriptions, however, childless and childless-by-choice women do not differ significantly, and both were rated significantly more highly than mothers. This suggests that motherhood reduces the perception of agentic traits from the baseline level for women. For women, then, the definitive parenthood statuses of motherhood or being childless-by-choice incur a cost relative to the more easily mutable status of "childless," while motherhood (but not being childless-by-choice) also results in a potentially compensatory gain.

The situation for men is more straightforward. As was the case for women, childless men have significantly lower scores than fathers on the female prescription scale, and significantly higher scores than childless-by-choice men. No differences emerge among the three groups for male prescriptions, however. Simply put, parenting status for men does not have the same kind of potential negative repercussions as it does for women. Being childless-by-choice costs men in the same way it costs women, in that

perceived communality is reduced. In contrast, fathers do not incur the cost that mothers do, as mothers lose perceived agency, and fathers do not. Interestingly, these results are parallel to ones found by Cuddy et al. (2004). In their study, female professionals with children were perceived as warmer, but less competent, than professional women of whom no mention of parenting status was made. For male professionals, fatherhood resulted in an increased perception of warmth, but no change in perception of competence, compared to a man of whom no mention of parenting status was made.

Finally, Study 2 added to the body of knowledge of parenting status stereotypes through the use of the empirically-derived scales created via discriminant analyses for each gender. For women, a scale measuring career orientation, which also includes items that suggest a rejection of female prescriptions (e.g., reverse-scores for nurturing and liking children) clearly differentiated between the three parenting status groups, with childless women scoring significantly higher than mothers, and significantly lower than childless-by-choice women. For men, a scale measuring family orientation, which was focused solely on children and communal traits and did not include agentic items, clearly differentiated between the three male target groups. Childless men scored significantly higher than childless-by-choice men, and significantly lower than fathers. Conceptually, this reflects back to the results of male and female prescriptive scales. Definitive parenthood status for women results in changes for perceived agentic and communal stereotypic traits, while for men it only results in change for perceived communal stereotypic traits.

In Studies 3 and 4, participants read a vignette about a female (Study 3) or male (Study 4) Kindergarten teacher or financial consultant, who was portrayed as either

childless, childless-by-choice, or a parent. Targets were rated on scales that were previously used in Study 2, as well as measures reflecting how much the target was liked and respected, the target's parenting intent and future employment plans, her or his value to the employer, deserved salary, and how typical the target was perceived to be. These studies added to the body of research concerning how gender and parenting status affect how individuals are perceived and evaluated as employees.

For both Study 3 and Study 4, I had predicted differences among parenting status groups on measures of perception of the target seeking promotion, level of training the employer should provide, and deserved salary. Significant differences did not emerge between parenting status groups on any of those measures. Differences did emerge on measures of procreative intent, such that participants rated male and female childless-by-choice targets as significantly less likely than childless or parent targets to have a child in the near future. Additionally, participants rated mothers and childless female targets as significantly more likely than childless-by-choice female targets to reduce her hours or leave the workforce entirely within the next few years. This difference did not emerge among male targets.

My predictions for Study 3 were derived in part based on prior literature, and based in part on the results of Study 2 of this dissertation. In Cuddy et al.'s (2004) study of parenting status, gender, and employment, participants read a vignette depicting a consultant as a male or female parent or nonparent. Results of that study indicated that participants who read the vignette describing the target as a working mother rated her lower on a measure that assessed how much she should get promoted, how much the company should invest in her training, and how likely the participant would be to hire her

as a consultant, compared to participants who read about the target depicted as a female nonparent. Furthermore, in the second study in this dissertation, childless-by-choice women were rated as possessing higher levels of qualities that suggested a career-orientation, and lower levels of communal traits, as compared to mothers. This led me to hypothesize that childless-by-choice women would be favored in the consulting position in terms of salary, level of respect, and likelihood of seeking promotion, as their higher level of perceived career orientation would be a better fit for the position than mothers, who had a relatively lower score. Results did not support my hypotheses, however.

Likewise, my hypotheses in Study 4 were based on the results of Study 2. As fathers were perceived as possessing higher levels of nurturing traits, but no higher or lower amount of agentic traits or competence, I predicted fathers would earn a higher salary, more respect, and have greater long term value to the school as compared with the childless-by-choice male teacher. These hypotheses were also not supported by the results.

These results from Studies 3 and 4 are inconsistent with a good deal of prior literature and theory. Based on the idea of the maternal wall (Crosby, et al., 2004; J. Williams, 2001), the childless-by-choice and childless employees should have been favored over the mother targets. Based on the idea of a fatherhood wage premium (Correll, et al., 2007), childless and childless-by-choice men should have been at a disadvantage compared to father targets. One potential explanation for the differences in the results of my studies compared to the prior literature is the sample pools. Much of the research on gender and parenting status-based employment discrimination has been conducted using university student samples and administered to some degree in-person

by research personnel in psychology labs (e.g., Moss-Racusin et al., 2010; Phelan et al., 2008) or other academic environments (e.g., Correll, et al., 2007; Cuddy et al., 2004). It may be beneficial to attempt to replicate Studies 3 and 4 using an undergraduate sample to determine if sample characteristics and/or demand characteristics of an academic setting played a role in the results. Furthermore, as audit studies (e.g., Correll, et al., 2007) have demonstrated differences in callback percentages between parent and nonparent job applicants, an audit study adaptation of my third and fourth studies may be useful.

Limitations

The four studies used in this dissertation have important limitations. First, due to the large number of analyses conducted across all three quantitative studies, there is a substantial risk of the occurrence of Type I error. I attempted to reduce the risk through the use of MANOVA as a preliminary analysis, and through post hoc tests that balanced the risk of Type I error against a reduction in power. Furthermore, in most cases, significant results occurred at the p < .01 or p < .001 level, which suggests that the significant findings were not likely due to chance.

With that said, effect sizes varied a great deal across all three studies. Analyses from Studies 3 and 4 concerning main effects for parenting status differences in perceived likelihood of the target having a child resulted in eta-squared values of .45 and .62, respectively, representing especially large effects. Most effect size results could be considered small-to-moderate, however. With this in mind, interpretation of the significant results should be conducted with caution.

Second, all four studies used convenience samples from the Internet, using one company's subject pool. These subjects self-selected into the studies for minimal compensation. As such, it is unknown if similar results would be found using other commonly-used recruitment methods and populations (e.g., undergraduate psychology students participating for course credit, in-person recruitment in malls or public parks for higher compensation). This applies most directly to Studies 3 and 4. Much of the past research on gender, parenting status, and employment used samples comprised of college students, primarily those enrolled in psychology courses. By using a more heterogeneous internet sample, the results of my studies may not be directly comparable to the results of other research. Compared to the typical undergraduate research participant pool, and consistent with the expected demographics using Mechanical Turk, my samples varied more in terms of age, parenting status, education level, geographic location, and employment status and employment history. Furthermore, as my samples were more likely to have firsthand experience in careers, some responses and evaluations of targets may be rooted in experience, rather than in purely hypothetical terms. One potential caveat for the sample characteristics of my studies is the unexpectedly low percentage of self-identified Hispanic participants. It is not clear what effect this could have on the generalizability of the results of my studies.

Another limitation concerning my subject pool pertains specifically to Studies 3 and 4. In those studies, targets were evaluated in terms of perceived personality attributes, as well as perceived job performance and career potential. The targets and vignettes were fictional, and the subjects were not selected as a result of any specific knowledge of nor personal or professional relationships with Kindergarten teachers or business consultants.

The results of the study, therefore, should not be construed as representative of how parents of Kindergarten-aged children, or potential consulting clients, would evaluate real-life counterparts to the targets in the vignettes. I do not believe, however, that the other typical subject pool for this type of research, psychology undergraduates, would be more representative than Mechanical Turk workers in this regard.

A second general limitation pertains to Studies 1 and 2, and concerns the methods used to determine the content of stereotypes of the target groups. While free response and rating scales methods have particular utility, there are other methods of determining the content of stereotypes that could have been used. For example, checklist methods have been used in stereotype research often using a critical percentage as a selection criterion for items to be used later in follow-up study that uses rating scales (e.g., Ganong & Coleman, 1995). Other studies use rating scales that consider how counterstereotypical, as well as how stereotypical, an item may be for a particular target group (e.g., Madon, 1997). My choice of using free response and rating scales was based in part on the nature of my research, which included six groups that were expected to differ from each other in terms of the content of their stereotypes. This necessitated a large item list, which did not lend itself to subjects rating each item on both how characteristic and uncharacteristic the attribute was for the target group (or groups). I believe both the a priori scales and the empirically-derived scales capture the ways in which stereotypes of the target groups differ from one another.

An additional limitation concerns the unknown construct validity of most of the scales used in the final three studies. With the exception of the warmth and competence scales of the Stereotype Content Model, which has been used in many published studies,

the scales in my studies have not been used previously. Results from Cronbach's alpha analyses demonstrated good internal consistency for the scales, but additional research using those scales would be required to determine their respective levels of convergent and discriminant validity in relation to other measures of similar and dissimilar constructs. This may be most applicable to the scales created empirically via discriminant function analyses.

A third type of limitation concerns the use of between-subjects designs in Studies 2, 3, and 4, in which participants rated only one experimental target and no filler targets. Similar studies in this area typically consist of subjects rating multiple targets or target groups, either as a within-subjects design testing multiple experimental targets (e.g., Heilman & Okimoto, 2008), or a design with one or more experimental targets and one or more filler targets (e.g., Cuddy et al., 2004; Heilman et al., 2004). My choice of design was motivated by two factors. First, a design in which multiple targets were evaluated would have been very taxing for subjects, given the large number of measures. Second, multiple targets invites comparisons between targets, and makes the true purposes of the study easier to determine, which could affect a participant's responses due to social desirability reasons. Participants may elect to respond to targets in ways supporting (demand characteristics) or opposing their ideas of what the researcher desires, or in ways they believe would paint them in the best light (social desirability or evaluation apprehension effects). That said, while comparisons between targets has disadvantages, it may also more realistically match real-world scenarios in which people evaluate others. For example, large organizations (including schools and consulting firms) typically evaluate multiple employees with the same job title during performance

reviews. A within-subjects design might have increased perceived differences between targets.

A final set of four limitations applies specifically to the nature of the vignettes and measures in Studies 3 and 4. The first limitation concerns aspects related to impression formation concerning the targets in the vignettes. While results of Study 2 suggest that certain perceptions of individuals will differ within gender depending on the individual's parenting status, results from Studies 3 and 4 did not always demonstrate these differences. This may be due in part to specific aspects of the design of Study 2 versus that of Studies 3 and 4. In Study 2, participants were provided a group label and definition, making salient only the target group's gender and parenting status. In Studies 3 and 4, participants were provided information about the target's employer and career category, the target's gender and parenting status, and other personal and career information relevant to the target. In Studies 3 and 4, participants may have categorized the target based on career, with gender and parenting status acting as individuating information (i.e., information that causes the perceiver to look beyond the initial categorization). Additional information, including marital status, the number of children the parent target has, and the target's name, which may connote information concerning racial or socioeconomic background, could provide further opportunity for individuation. As such, the greater amount of information related to the targets in Studies 3 and 4, relative to that in Study 2, may have led to a reduction in the stereotyping of the targets in those studies (see Fiske, Lin, & Neuberg, 1999, for a review).

A second limitation related to the vignette is the number of children being raised by the parent targets. I elected to have the parent target have one child, based on the idea that participants would be more likely to view the target as likely to have another child, compared with a target who had two or more children (Monte & Ellis, 2014). A change in the number of children could affect the perceptions of the target's dedication to the job, as well as likelihood of reducing hours or leaving the workforce. In addition, perceptions of parents of one child differ from parents of more than one child (Polit, 1978), which may have affected ratings on the personality stereotype measures.

Two additional limitations concerning Studies 3 and 4 are related to the measures regarding salary and regarding the intention to reduce work hours or leave the workforce. The results of the salary question in Studies 3 and 4 differs from other studies (e.g., Benard & Correll, 2010), in that no significant differences were found within occupation for each respective target gender. This may be due in part to how my question was worded. I asked what salary the target deserves, rather than the salary the participant believes the target is receiving, or a salary the participant would recommend without a qualifier (such as "deserves"). My phrasing in Studies 3 and 4 could have resulted in responses that reflect the participant's desire to be egalitarian or generous, rather than the participant's belief about how the target's employer values the target's worth. Social desirability may therefore have played a role for responses to the salary measure.

Finally, the measure reflecting the perception of the target's likelihood to voluntarily reduce hours or leave the workforce should be interpreted with caution. I mistakenly made this a compound item, reflecting two potentially discrete possibilities: the target reducing hours, or the target leaving the workforce. It is unclear which of these possibilities each participant responded to in answering this question. It may still be useful as a proxy for voluntarily reducing hours to a degree, as leaving the workforce

necessarily requires reducing hours. Nonetheless, it would have been preferable to have used individual items to capture separately the two compounded elements of this item.

Stereotyping, prejudice, and discrimination: An additional consideration

Collectively, the results of the four studies presented in my dissertation suggest that parenting status can impact how men and women are perceived. Considerable focus was given to childless-by-choice women and men, who, on the basis of the results of this research, face a certain level of negative stereotyping and prejudice. Study 1's free response results suggested selfish qualities for both childless-by-choice women and men, with childless-by-choice men also considered to be immature. In Studies 3 and 4, the childless-by-choice targets "experienced" prejudice relative to parents, in that they were liked less. That said, mean scores on the measure concerning how much the target was liked were above 5.00 on the seven point scale for both childless-by-choice women and men, which suggests that while there may be a stigma attached to being childfree, it is not an overwhelming one. Furthermore, despite evidence of the existence of stereotypes of the childless-by-choice and parents, the key outcome measure in Studies 3 and 4, salary, did not vary significantly by parenting status.

These results may be a function of the context of Studies 3 and 4 in that they concerned employees. The qualities that may result in a positive perception of an employee may differ from those qualities one would value in someone with a closer social distance, like a family member or a friend. As the relationship between prejudice and discrimination may be affected by factors including the target groups in question and the ways in which prejudice and discrimination are assessed (Schütz & Six, 1996), the results of my studies are not surprising. Though discrimination was not demonstrated in

my results despite evidence of prejudice, discrimination based on parenting status may still occur in other domains.

Future directions

Results of this research suggest a number of different avenues for future studies. First, replication with alternative methodologies and sampling strategies would bolster confidence in the statistical conclusions that were drawn, including those pertaining to internal validity and generalizability of findings. Second, it may be valuable to determine how the self-concept of individuals from the target groups used in this dissertation align with the stereotypes of their respective groups. For example, it may be useful to know if childless-by-choice women rate themselves as lower on possessing female prescriptive traits as compared to mothers. Third, it may be worth repeating the employment studies with some key modifications. For example, the target in the vignettes was always presented as married, which may have influenced the perceptions of the targets in terms of family orientation, or in the perceived likelihood to focus energies into a career. Fourth, the nature of the occupations used in the vignettes differed in particular ways, including perceived work-life balance and how much ambition is useful for employees to possess. Both of the occupations were similar in that both required higher education, and were not physically demanding. It may be worth testing more relatively lower-status gendered occupations, such as sanitation worker (traditionally male) or home health aide (traditionally female). Finally, while my four studies examined how stereotypes of parents, childless, and childless-by-choice groups and target individuals differed from one another, these differences may suggest that parenting status acts as a classifier for subgrouping or subtyping within the general groups of women and men. Alternatively,

they may align with gender subgroups or subtypes found in previous research. For example, the parenting status of being childless-by-choice may align a woman with a subtype of "career woman" moreso than that of "housewife" (Eckes, 1994).

Conclusion

Although women are generally stereotyped in terms of communal traits and men are generally stereotyped in terms of agentic ones, parenting status can act as a qualifier of these tendencies. Specifically, fathers may be stereotyped in terms of possessing communal traits, whereas childless-by-choice women may be stereotyped in terms of both possessing agentic traits and lacking communal traits relative to other women. As a significant percentage of American men are fathers, and a growing minority of women are childless-by-choice, reliance on generic gender stereotypes may be masking important differences in parenting status-based subtypes within each gender. Implications for these differences may be domain-specific, however, as results from my studies did not indicate fathers or childless-by-choice women are valued differently in their roles as employees compared to others of their respective genders.

Appendix A: Table 1 through Table 34

Table 1
Study 1 - Most Frequent Free Response Items by Target Group

Target group	Item	Count	Percent
Childless Women			
	Lonely	41	34%
	Independent	41	34%
	Career-oriented	23	19%
	Intelligent	20	17%
	Sad	15	12%
	Strong	14	12%
	Busy	13	11%
	Selfish	12	10%
Childless-By-			
Choice Women			
	Independent	37	31%
	Career-oriented	34	28%
	Intelligent	29	24%
	Selfish	25	21%
	Strong	19	16%
	Busy	14	12%
	Financially wealthy	12	10%
Mothers			
	Loving	59	49%
	Caring	59	49%
	Nurturing	37	31%
	Kind	20	17%
	Patient	19	16%
	Compassionate	18	15%
	Strong	17	14%
	Warm	17	14%
	Responsible	13	11%
	Unselfish	13	11%
	Giving	12	10%

Note. N = 121. Percent column is the percentage of responses of the item relative to the total sample.

Table 1 continued

Target group	Item	Count	Percent
Childless Men			
	Selfish	25	21%
	Career-oriented	25	21%
	Independent	22	18%
	Lonely	22	18%
	Intelligent	18	15%
	Busy	14	12%
	Immature	12	10%
	Sad	12	10%
Childless-By-			
Choice Men			
	Selfish	37	31%
	Independent	29	24%
	Career-oriented	25	21%
	Intelligent	22	18%
	Immature	17	14%
	Self-centered	14	12%
	Busy	13	11%
Fathers			
	Caring	57	47%
	Loving	53	44%
	Strong	28	23%
	Responsible	21	17%
	Kind	19	16%
	Hard working	18	15%
	Нарру	16	13%
	Nurturing	15	12%

Note. N = 121. Percent column is the percentage of responses of the item relative to the total sample.

Table 2 Study 2 - Cronbach's Alpha Scores for A Priori Scales

Scale	Full Sample	Mothers	Fathers	Childless Women	Childless Men	CBC Women	CBC Men
Female Prescriptions	.84	.80	.84	.86	.83	.81	.85
Female Proscriptions	.81	.77	.82	.84	.82	.81	.79
Male Prescriptions	.93	.90	.94	.93	.90	.94	.93
Male Proscriptions	.93	.91	.95	.95	.90	.93	.93
Warmth	.92	.92	.92	.92	.87	.91	.92
Competence	.86	.83	.88	.86	.77	.86	.91

Note. N = 572. CBC = Childless-by-Choice. Scores for Cronbach's alpha conventionally follow these guidelines: $\alpha > .90$ Excellent; $.70 < \alpha < .90$ Good; $.60 < \alpha < .70$ Acceptable; $.50 < \alpha < .60$ Poor; $\alpha < .50$ Unacceptable.

Table 3 Study 2 - Correlation Between Scale Scores for the Mothers Target Group

	Scale	1	2	3	4	5
1	Warmth					_
2	Competence	.80**				
3	Female Proscriptions	62**	60**			
4	Female Prescriptions	.87**	.81**	47**		
5	Male Prescriptions	.67**	.81**	32**	.78**	
6	Male Proscriptions	43**	48**	.69**	29**	27**

Note. n = 106. ** p < .01.

Table 4
Study 2 - Correlation Between Scale Scores for the Fathers Target Group

	Scale	1	2	3	4	5
1	Warmth					
2	Competence	.85**				
3	Female Proscriptions	21*	14			
4	Female Prescriptions	.90**	.86**	11		
5	Male Prescriptions	.79**	.87**	.13	.84**	
6	Male Proscriptions	.02	.05	.61**	.23*	.24*

Note. n = 101.

^{*} *p* < .05. ** *p* < .01.

Table 5
Study 2 - Correlation Between Scale Scores for the Childless Women Target Group

	/		J			
	Scale	1	2	3	4	5
1	Warmth					_
2	Competence	.86**				
3	Female Proscriptions	48**	42**			
4	Female Prescriptions	.94**	.81**	36**		
5	Male Prescriptions	.83**	.87**	.20	.85**	
6	Male Proscriptions	33**	37**	.76**	16	17

Note. n = 83.

^{**} *p* < .01.

Table 6
Study 2 - Correlation Between Scale Scores for the Childless Men Target Group

	Scale	1	2	3	4	5
1	Warmth					
2	Competence	.79**				
3	Female Proscriptions	42**	35**			
4	Female Prescriptions	.85**	.73**	36**		
5	Male Prescriptions	.72**	.83**	.03	.70**	
6	Male Proscriptions	42**	45**	.66**	12	21

Note. n = 83.

^{**} *p* < .01.

Table 7 Study 2 - Correlation Between Scale Scores for the Childless-by- Choice Women Target Group

070	up					
	Scale	1	2	3	4	5
1	Warmth					
2	Competence	.76**				
3	Female Proscriptions	58**	35**			
4	Female Prescriptions	.92**	.74**	53**		
5	Male Prescriptions	.72**	.91**	19	.70**	
6	Male Proscriptions	45**	39**	.62**	31**	30**

Note. n = 97. ** p < .01.

Table 8 Study 2 - Correlation Between Scale Scores for the Childless-by- Choice Men Target Group

0/0	up					
	Scale	1	2	3	4	5
1	Warmth					
2	Competence	.77**				
3	Female Proscriptions	39**	17			
4	Female Prescriptions	.93**	.79**	33**		
5	Male Prescriptions	.71**	.88**	10	.74**	
6	Male Proscriptions	21*	24*	.58**	10	.00

Note. n = 102. * p < .05. ** p < .01.

Table 9 Study 2 - Marginal Means, Standard Deviations, ANOVA Main Effects, and Tukey's HSD Results for A Priori Scales

		Target G	ender			F	Parenting Status				
		Women	Men	η^2		Parent	Childless	CBC	η^2		Grand
Scale		286	286			207	166	199			572
Esmala Duagamintiana	M	3.23	3.56	0.02	***	3.12 _a	3.38 _b	3.69 _c	0.05	***	3.39
Female Proscriptions	SD	1.00	1.12			0.89	1.13	1.13			1.07
M-1- Dui-4i	M	3.27	3.25	0.00	ns	3.48 _a	3.17_{b}	3.13 _b	0.04	***	3.26
Male Proscriptions	SD	0.83	0.80			0.74	0.86	0.81			0.81
El- Dui-ti	M	4.67	4.33	0.04	***	4.83 _a	$4.42_{\rm b}$	4.22 _c	0.09	***	4.50
Female Prescriptions	SD	0.84	0.85			0.75	0.88	0.88			0.86
Mala Duanaintiana	M	4.81	4.64	0.01	**	4.63 _a	4.71_{ab}	4.85 _b	0.02	**	4.73
Male Prescriptions	SD	0.73	0.76			0.69	0.73	0.73			0.75
W4b	M	5.02	4.70	0.02	***	5.22 _a	$4.70_{\rm b}$	4.59 _b	0.06	***	4.86
Warmth	SD	1.09	1.10			0.97	1.10	1.10			1.10
C	M	5.30	4.99	0.03	***	5.10	5.14	5.19	0.00	ns	5.14
Competence	SD	0.91	0.97			0.88	0.92	0.92			0.95

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target gender) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective main effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost columns for gender and parenting status indicate main effects. Groups not sharing a subscript differ at the p < .05 level using Tukey's HSD tests, conducted if significant main effects were found. * p < .05. *** p < .01. *** p < .001. ns p > .05.

Table 10
Study 2 - Cell Means, Standard Deviations, ANOVA Interaction Effects and Simple Effects, and Fisher's LSD Results for A Priori Scales

			Women				Men					
		Parent	Childless	CBC		Parent	Childless	CBC		Grand	η^2	PSxG
Scale		106	83	97		101	83	102		572	•	
Female Proscriptions	M	3.13	3.16	3.39	ns	3.10 _a	3.60 _b	3.98 _c	***	3.39	.02	**
	SD	0.84	1.06	0.99		0.94	1.06	1.16		1.07		
Male Proscriptions	M	3.63 _a	3.13 _b	3.01 _b	***	3.31	3.20	3.24	ns	3.26	.02	***
	SD	0.67	0.91	0.78		0.79	0.81	0.8		0.08		
Female Prescriptions	M	4.93	4.63	4.41		4.72	4.22	4.04		4.5	.00	ns
	SD	0.65	0.99	0.8		0.84	0.71	0.84		0.86		
Male Prescriptions	M	4.61 _a	4.85 _b	5.00 _c	***	4.65 _a	4.57 _a	4.70_{a}	ns	4.73	.01	*
	SD	0.58	0.78	0.78		0.79	0.64	0.82		0.75		
Warmth	M	5.29	4.9	4.82		5.14	4.55	4.37		4.86	.00	ns
	SD	0.92	1.21	1.09		1.02	0.95	1.15		1.1		
Competence	M	5.18	5.34	5.39		5.02	4.94	4.99		5.14	.00	ns
	SD	0.77	0.99	0.97		0.98	0.81	1.07		0.95		

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target gender) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective interaction effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost column indicates significance testing for interaction; rightmost column for each gender indicates significance tests of simple effects. Groups not sharing a subscript differ at the p < .05 level using Fisher's LSD tests, conducted if significant simple effects were found.

^{*} p < .05. ** p < .01. *** p < .001. ns p > .05. (blank) not analyzed due to non-significant interaction effect, p > .05.

Table 11
Study 2 - Items and Function Loadings for Empirically-Derived Scales: Female Target Groups

	Function 1: Independent and	l Non-Communal		Function 2: Uncompromisin	nising	
	Career-Oriented	.30*	r	Typical	19*	
r	Family oriented	29*		Outspoken	.15*	
r	Likes children	28*		Would be a bad subordinate at work	.15*	
r	Exhausted	28*	r	Young	14*	
r	Nurturing	25*	r	Would be a good subordinate at work	14*	
	Independent	.24*		Ruthless	.14*	
	Uninterested in children	.23*	r	Natural	-13*	
r	Traditional	21*	r	Attractive	12*	
	Financially wealthy	.21*		Intimidating	.12*	
	Financially secure	.20*		Cold	.12*	
	Dislikes children	.20*		Honest	.12*	
	Carefree	.19*	r	Sexually satisfied	12*	
r	Conformist	16*		Choosy	.11*	
r	Tender	16*		Stingy	.11*	
r	Caring	16*		Does not attend church	.11*	

Note. n = 286. r indicates items that are reverse-scored in scales; * indicates significance at the p < .05 level.

Table 12
Study 2 - Cronbach's Alphas for Empirically-Derived Scales: Female Target Groups

Scale	All Female Targets	Childless Women	CBC Women	Mothers
Independent and Non- Communal	.90	.73	.76	.66
Uncompromising	.72	.70	.71	.67

Note. n = 286. CBC = Childless-by-Choice. Scores for Cronbach's alpha conventionally follow these guidelines:

 $[\]alpha$ > .90 Excellent; .70 < α < .90 Good; .60 < α < .70 Acceptable; .50 < α < .60 Poor; α < .50 Unacceptable.

Table 13
Study 2 - Correlation Between A Priori Scale Scores and Empirically-Derived Scale Scores for Female Target Groups

Scale	Independent and Non-Communal	Uncompromising
Warmth	42**	64**
Competence	07	46**
Female Proscriptions	.28**	.67**
Female Prescriptions	47**	64**
Male Prescriptions	.08	32**
Male Proscriptions	24**	.37**
Uncompromising	.34**	

Note. n = 286** p < .01.

Table 14
Study 2 - Means, Standard Deviations, and Hypothesis Testing for the Empirically-Derived Scales: Female Target Groups

	Mot	hers	Child	lless		ess-By- oice	То	Total		
Source	M	SD	M	SD	M	SD	M	SD		
Independent and Non-Communal	2.80 _a	0.47	4.37 _b	0.68	4.69 _c	0.68	3.90	1.05	0.66	
Uncompromising	3.52 _a	0.51	3.34 _a	0.64	3.88_{b}	0.65	3.59	0.64	0.12	

Note. n = 286. Groups not sharing a subscript differ at the p < .05 level using Tukey's HSD tests. Both scales were analyzed using three group one-way ANOVAs; results for both analyses were significant, p < .001. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively.

Table 15
Study 2 - Items and Function Loadings for Empirically-Derived Scales: Male Target
Groups

Groi	<u>*</u>				
	Function 1: Family-Oriented	ł		Function 2: Peculiar and Peevi	sh
	Family oriented	.41*		Choosy	.22*
	Likes children	.38*		Prejudiced	.18*
r	Uninterested in children	32*		Busy	.16*
	Nurturing	.29*		Perfectionist	.14*
	Traditional	.28*		Feminine	.12*
r	Dislikes children	28*		Bisexual	.12*
r	Single	28*		Outspoken	.12*
	Married	.28*		Does not attend church	.12*
r	Partier	27*		Satisfied with life	.12*
	Exhausted	.25*	r	Agreeable	- .11*
	Loving	.23*		Conservative	.11*
r	Carefree	22*		Sinful	.11*
	Caring	.21*	r	Normal	11*
	Gentle	.21*		Strange	.11*
	Tender	.21*	r	Lacks ambition	10*

Note. n = 286. r indicates items that are reverse-scored in scales; * indicates significance at the p < .05 level.

Table 16
Study 2 - Cronbach's Alphas for Empirically-Derived Scales: Male Target Groups

Scale	All Male Targets	Childless Men	CBC Men	Fathers
Family-Oriented	.93	.84	.86	.78
Peculiar and Peevish	.68	.66	.64	.57

Note. n = 286. CBC = Childless-by-Choice.

Scores for Cronbach's alpha conventionally follow these guidelines: $\alpha > .90$ Excellent; $.70 < \alpha < .90$ Good; $.60 < \alpha < .70$ Acceptable; $.50 < \alpha < .60$ Poor; $\alpha < .50$ Unacceptable.

Table 17
Study 2 - Correlation Between A Priori Scale Scores and Empirically-Derived Scale Scores: Male Target Groups

Scale	Family-Oriented	Peculiar and Peevish
Warmth	.60**	21**
Competence	.28**	.05
Female Proscriptions	54**	.73**
Female Prescriptions	.65**	14*
Male Prescriptions	.19**	.31**
Male Proscriptions	04	.51**
Uncompromising	39**	

Note. n = 286.

^{*} *p* < .05. ** *p* < .01.

Table 18
Study 2 - Means, Standard Deviations and Hypothesis Testing for Empirically-Derived Scales: Male Target Groups

	Fatl	ners	Chile	dless		less-By- loice		Total (Marginal)		
Source	M	SD	M	SD	M	SD	M	SD		
Family- oriented	5.31 _a	0.62	3.47 _b	0.78	3.21 _c	0.85	4.03	1.22	0.62	
Peculiar and Peevish	3.57 _a	0.48	3.52 _a	0.59	4.07 _b	0.61	3.74	0.61	0.17	

Note. n = 286. Groups not sharing a subscript differ at the p < .05 level using Tukey's HSD tests. Both scales were analyzed using three group one-way ANOVAs; results for both analyses were significant, p < .001. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively.

Table 19
Study 3 - Means, Standard Deviations, Cohen's d, and Independent Sample T Test
Results for Occupation Items

_	Teacher $(n = 236)$			ultant 193)			
Item	M	SD	M	SD	d	t^*	p
Requires being an ambitious person	3.86	1.54	6.1 9	0.9 6	1.7 8	18.3 2	.000
Requires being a nurturing person	6.48	0.79	3.2 7	1.4 5	2.8	29.1 5	.000
More nurturing (1) or more ambitious (7)	1.92	1.26	6.0 4	1.0 9	3.4 7	35.7 5	.000
Good for a career- driven person	3.47	1.50	6.2	1.0 4	2.1	21.6 0	.000
Good for a person seeking a good work/life balance	5.38	1.24	3.1 9	1.5 7	1.5 7	16.1 7	.000
More for career- driven person (1) or person seeking work/life balance (7)	5.42	1.28	2.2	1.4	2.3	24.2 9	.000

Note. N = 429. Degrees of freedom for all t tests is 427. Effect sizes as measured by Cohen's d are calculated for each occupation item, and are listed in column d. Conventionally, small, medium, and large effects are considered attained at .2, .5, and .8, respectively. Higher mean scores indicate a greater amount of the trait, except where otherwise specified.

Table 20 $Study\ 3\ (N=429)$ - Cronbach's Alpha, Means, and Standard Deviations for Personality Attribute, Stereotype Content Model, Liked, and Respected Scales

Scale	α	M	SD
Female prescriptions	.92	5.06	0.73
Female proscriptions	.87	2.90	0.96
Independent and Non-Communal	.84	3.67	0.84
Uncompromising	.75	3.38	0.64
Warmth	.91	5.54	0.95
Competence	.91	5.91	0.82
Liked	.86	5.26	1.10
Respected	.88	5.70	1.00

Note. N = 429.

Scores for Cronbach's alpha conventionally follow these guidelines: $\alpha > .90$ Excellent; $.70 < \alpha < .90$ Good; $.60 < \alpha < .70$ Acceptable; $.50 < \alpha < .60$ Poor; $\alpha < .50$ Unacceptable.

Table 21
Study 3 - Correlations for Personality Attributes, Stereotype Content Model, Liked, and Respected Scales

	Scale	1	2	3	4	5	6	7
1	Female prescriptions							
2	Female proscriptions	54***						
3	Independent and Non-Communal	61***	.44***					
4	Uncompromising	66***	.80***	.61***				
5	Warmth	.91***	65***	56***	70***			
6	Competence	.47***	28***	.08	15**	.52***		
7	Liked	.74***	60***	47***	63***	.78***	.47***	
8	Respected	.67***	52***	30***	46***	.74***	.64***	.84***

Note. N = 429.

^{***} p < .001. ** p < .01.

Table 22 Study 3 - Marginal Means, Standard Deviations, ANOVA Main Effects, and Tukey's HSD Results for A Priori Scales

			Occupation	1			Parenting	g Status			
		Teacher	Consultant	η^2		Mother	Childless	CBC	η^2		Grand
Scale		236	193	,		140	169	120	•		429
Female Proscriptions	M	2.51	3.36	.18	***	2.74	2.97	2.97	.01	ns	2.90
remaie Proscriptions	SD	0.82	0.92			0.85	0.96	1.06			0.96
Family David Cons	M	5.36	4.69	.21	***	5.20 _a	5.04 _{ab}	4.93 _b	.02	**	5.06
Female Prescriptions	SD	0.61	0.69			0.66	0.69	0.82			0.73
Warmth	M	5.94	5.05	.21	***	5.68	5.50	5.43	.01	ns	5.54
vv armin	SD	0.79	0.90			0.87	0.92	1.07			0.95
Competence	M	5.78	6.07	.03	***	5.90	5.90	5.95	.00	ns	5.91
	SD	0.79	0.83			0.84	0.78	0.84			0.82
Independent and Non-	M	3.12	4.35	.50	***	3.21 _a	$3.70_{\rm b}$	4.17 _c	.18	***	3.67
ndependent and Non- Communal	SD	0.47	0.70			0.60	0.76	0.91			0.84
Uncompromising	M	3.06	3.77	.30	***	3.27 _a	3.39 _{ab}	3.50 _b	.01	*	3.38
	SD	0.48	0.58			0.57	0.62	0.71			0.64

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target occupation) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective main effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost columns for occupation and parenting status indicate main effects. Groups not sharing a subscript differ at the p < .05 level using Tukey's HSD tests, if significant main effects were found.

^{*} p < .05. ** p < .01. *** p < .001. ns p > .05.

Table 23
Study 3 - Cell Means, Standard Deviations, Interaction Effects and Simple Effects, and Fisher's LSD Results for A Priori Scales

			Teacher			•	Consultant			v		
		Mother	Childless	CBC		Mother	Childless	CBC		Grand	η^2	PSxO
Scale		82	89	65		58	80	55	55			
Female	M	2.42	2.55	2.58		3.20	3.44	3.43		2.90	.00	ns
Proscriptions	SD	0.70	0.81	0.95		0.85	0.9	1.00		0.96		
Female	M	5.45	5.33	5.30		4.83	4.72	4.49		5.06	.00	ns
Prescriptions	SD	0.54	0.55	0.73		0.64	0.69	0.70		0.73		
Warmth	M	6.04	5.92	5.94		5.17	5.03	4.95		5.54	.00	ns
	SD	0.69	0.71	0.79		0.84	0.91	0.95		0.95		
Competence	M	5.78	5.78	5.79		6.07	6.03	6.13		5.91	.00	ns
	SD	0.81	0.69	0.89		0.87	0.86	0.74		0.82		
Independent and	M	2.84 _a	3.11 _b	3.49 _c	***	3.74 _a	4.36 _b	4.97 _c	***	3.67	.02	***
Non-Communal	SD	0.33	0.36	0.50		0.50	0.49	0.56		0.84		
Uncompromising	M	2.97	3.06	3.17		3.69	3.75	3.88		3.38	.00	ns
2	SD	0.40	0.46	0.57		0.51	0.57	0.67		0.64		

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target occupation) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective interaction effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost column indicates significance testing for interaction; rightmost column for each gender indicates significance tests of simple effects. Groups not sharing a subscript differ at the p < .05 level using Fisher's LSD tests, conducted if significant simple effects were found. * p < .05. ** p < .01. *** p < .01. *** p < .05. (blank) not analyzed due to non-significant interaction effect, p > .05.

Table 24
Study 3 - Marginal Means, Standard Deviations, ANOVA Main Effects, and Tukey's HSD Results for Employee Measures

		<u> </u>	Occupation				Parenting Status					
		Teacher	Consultant	η^2		Mother	Childless	CBC	η^2		Grand	
Scale		236	193			140	169	120			429	
Liked	М	5.60	4.85	.12	***	5.38 _a	5.32a	5.05 _b	.01	*	5.26	
	SD	0.92	1.08			0.98	0.98	1.24			1.06	
Respected	M	5.85	5.48	.04	***	5.77	5.7	5.59	.00	ns	5.69	
	SD	0.91	1.01			0.89	0.96	1.08			0.98	
Seek	M	4.48	6.33	.35	***	5.28	5.31	5.34	.00	ns	5.31	
promotion	SD	1.39	1.02			1.47	1.56	1.61			1.54	
Employer	M	5.56	5.65	.00	ns	5.61	5.65	5.53	.00	ns	5.60	
invest in target	SD	1.15	1.06			1.06	1.05	1.25			1.11	
Reduce hours or	M	2.67	2.23	.02	**	2.89 _a	2.56 a	1.86 _b	.08	***	2.47	
leave	SD	1.43	1.44			1.55	1.37	1.23			1.45	
Likelihood	M	4.35	3.32	.05	***	4.95 _a	4.54 _b	1.73 _c	.45	***	3.89	
to have a child	SD	1.95	1.85			1.60	1.50	1.09			1.97	

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target occupation) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective main effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost columns for occupation and parenting status indicate main effects. Groups not sharing a subscript differ at the p < .05 level using Tukey's HSD tests, if significant main effects were found.

^{*} p < .05. ** p < .01. *** p < .001. ns p > .05.

Table 25
Study 3 - Cell Means, Standard Deviations, Interaction Effects and Simple Effects, and Fisher's LSD Results for Employee Measures

			Teacher				Consultant					
		Mother	Childless	CBC		Mother	Childless	CBC		Grand	η^2	PSxO
Scale		82	89	65		58	80	55		429	,	
Liked	М	5.68	5.66	5.42		4.96	4.93	4.61		5.26	.00	ns
	SD	0.83	0.80	1.15		1.02	1.03	1.20		0.92		
Respected	M	5.96	5.85	5.73		5.49	5.53	5.41		5.69	.00	ns
	SD	0.78	0.87	1.11		0.98	1.03	1.03		0.98		
Seek	M	4.52	4.40	4.52		6.34	6.33	6.31		5.31	.00	ns
promotion	SD	1.30	1.42	1.48		0.95	0.99	1.15		1.54		
Employer	M	5.60	5.62	5.45		5.64	5.69	5.62		5.60	.00	ns
invest in target	SD	1.12	0.97	1.40		0.97	1.13	1.05		1.11		
Reduce	M	2.99	2.73	2.18		2.76	2.38	1.47		2.47	.00	ns
hours or leave	SD	1.47	1.35	1.39		1.67	1.37	0.86		1.45		
Likelihood to	M	5.49 _a	5.15 _a	1.83 _b	***	4.19 _a	3.86a	1.60_{b}	***	3.89	.01	**
have a child	SD	1.14	1.21	1.18		1.85	1.51	0.97		1.97		

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target occupation) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective interaction effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost column indicates significance testing for interaction; rightmost column for each gender indicates significance tests of simple effects. Groups not sharing a subscript differ at the p < .05 level using Fisher's LSD tests, conducted if significant simple effects were found. * p < .05. *** p < .01. **** p < .01. *** p < .05. (blank) not analyzed due to non-significant interaction effect, p > .05.

Table 26
Study 3 - Means, Standard Deviations, and One-Way ANOVAs for Salary

		Parental Status		_	
Occupation	Mothers	Childless	Childless-By- Choice	Total (Marginal)	
Teachers					
M	49613.49	51927.31	50476.78	50723.85	ns
SD	12667.04	14782.18	13141.77	13607.42	
n	82	89	65	236	
Consultants					
M	103167	106456.65	107211.78	105683.24	ns
SD	13733.69	20569.46	17921.76	19797.15	
n	58	80	55	193	

Note. N = 429. ns indicates one way ANOVA results for each occupation is not significant, p > .05. All salary values in dollars.

Table 27
Study 4 - Means, Standard Deviations, Cohen's d, and Independent Samples T Test
Results for Occupation Items

_	Teac $(n = 1)$		Consu (n = 1				
Item	M	SD	M	SD	d	t^*	p
Requires being an ambitious person	3.87	1.61	6.24	0.87	1.99	18.11	.000
Requires being a nurturing person	6.43	0.78	3.40	1.58	2.41	23.70	.000
More nurturing (1) or more ambitious (7)	2.02	1.30	6.01	1.14	3.27	32.15	.000
Good for a career-driven person	3.43	1.60	6.30	0.89	2.22	21.99	.000
Good for a person seeking a good work/life balance	5.66	1.20	3.33	1.50	1.71	16.75	.000
More for career-driven person (1) or person seeking work/life balance (7)	5.54	1.37	2.42	1.70	2.01	19.75	.000

Note. Degrees of freedom for all *t* tests is 384. Effect sizes as measured by Cohen's *d* are calculated for each occupation item, and are listed in column *d*. Conventionally, small, medium, and large effects are considered attained at .2, .5, and .8, respectively. Higher mean scores indicate a greater amount of the trait, except where otherwise specified.

Table 28 Study 4 (N = 386) - Cronbach's Alpha, Means, and Standard Deviations for Personality Attributes, Stereotype Content Model, Liked, and Respected Scales

	α	M	SD
Male prescriptions	.93	5.19	0.71
Male proscriptions	.80	2.91	0.72
Family-oriented	.86	4.91	0.92
Peculiar and Peevish	.53	3.69	0.45
Warmth	.91	5.41	0.95
Competence	.90	5.86	0.78
Liked	.84	5.25	1.00
Respected	.86	5.58	0.90

Note. N = 386. Scores for Cronbach's alpha conventionally follow these guidelines: $\alpha > .90$ Excellent; $.70 < \alpha < .90$ Good; $.60 < \alpha < .70$ Acceptable; $.50 < \alpha < .60$ Poor; $\alpha < .50$ Unacceptable.

Table 29
Study 4 - Correlations for Personality Attributes, Stereotype Content Model, Liked, and Respected Scales

	Scale	1	2	3	4	5	6	7
1	Male prescriptions							
2	Male proscriptions	41***						
3	Family- oriented	.05	04					
4	Peculiar and Peevish	.26***	.31***	46***				
5	Warmth	.32***	16**	.76***	39***			
6	Competence	.80***	52***	.32***	07	.55***		
7	Liked	.25***	22***	.61***	.44***	.75***	.45***	
8	Respected	.45***	38***	.51***	34***	.69***	.63***	.85***

Note. N = 386.

^{***} *p* < .001. ** *p* < .01.

Table 30
Study 4 - Marginal Means, Standard Deviations, ANOVA Main Effects, and Tukey's HSD Results for A Priori Scales

	_	Occ	upation			P	arenting Status	S			
	_	Teacher	Consultant	η^2		Father	Childless	CBC	η^2		Total
Scale		187	199	•		135	126	125	•		386
Male	M	3.05	2.78	.03	***	2.94	2.94	2.84	.00	ns	2.91
Proscriptions	SD	2.78	0.7			0.7	0.78	0.69			0.72
Male	M	4.9	5.46	.16	***	5.23	5.19	5.13	.00	ns	5.19
Prescriptions	SD	0.6	0.69			0.64	0.79	0.69			0.71
Warmth	M	5.91	4.94	.26	***	5.55 _a	5.39 _a	5.27 _b	.02	*	5.41
	SD	0.76	0.88			0.89	1.01	0.94			0.95
Competence	M	5.78	5.93	.01	ns	5.93	5.86	5.78	.01	ns	5.86
	SD	0.79	0.76			0.69	0.87	0.08			0.78
	M	5.46	4.39	.35	***	5.42 _a	$4.89_{\rm b}$	4.38_{c}	.21	***	4.91
Family Oriented	SD	0.66	0.83			0.66	0.89	0.89			0.92
Peculiar and	M	3.51	3.86	.16	***	3.66	3.67	3.76	.01	ns	3.69
Peevish	SD	0.39	0.44			0.43	0.46	0.46			0.45

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target occupation) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective main effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost columns for occupation and parenting status indicate main effects. Groups not sharing a subscript differ at the p < .05 level using Tukey's HSD tests, if significant main effects were found.

^{*} p < .05. ** p < .01. *** p < .001. ns p > .05.

Table 31
Study 4 - Cell Means, Standard Deviations, Interaction Effects and Simple Effects, and Fisher's LSD Results for A Priori Scales

			Teacher				Consultant					
		Father	Childless	CBC		Father	Childless	CBC		Total	$\eta^2 \\$	
Scale		64	63	60		71	63	65		386		PSxO
Male Proscriptions	M	3.14	3.02	2.95		2.74	2.86	2.74		2.91	.00	ns
_	SD	0.74	0.73	0.71		0.6	0.83	0.67		0.72		
Male Prescriptions	M	4.97	4.91	4.81		5.47	5.48	5.43		5.19	.00	ns
	SD	0.6	0.62	0.57		0.58	0.84	0.66		0.71		
Warmth	M	5.99	5.99	5.73		5.15	4.8	4.85		5.41	.01	ns
	SD	0.68	0.78	0.82		0.87	0.88	0.85		0.95		
Competence	M	5.84	5.78	5.73		6.01	5.94	5.82		5.86	.00	ns
	SD	0.76	0.85	0.77		0.62	0.88	0.78		0.78		
Family	M	5.73 _a	5.58 _a	5.06 _a	ns	5.15 _a	4.21 _b	3.75 _b	***	4.91	.04	***
Oriented	SD	0.53	0.58	0.67		0.65	0.56	0.53		0.92		
Peculiar and Peevish	M	3.56_a	3.48_a	3.50_a	ns	3.75 _a	3.86_a	$4.00_{\rm a}$	ns	3.69	.02	**
	SD	0.43	0.39	0.35		0.41	0.45	0.42		0.45		

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target occupation) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective interaction effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost column indicates significance testing for interaction; rightmost column for each gender indicates significance tests of simple effects. Groups not sharing a subscript differ at the p < .05 level using Fisher's LSD tests, conducted if significant simple effects were found.

^{*} p < .05. ** p < .01. *** p < .001. ns p > .05. (blank) not analyzed due to non-significant interaction effect, p > .05.

Table 32
Study 4 - Marginal Means, Standard Deviations, ANOVA Main Effects, and Tukey's HSD Results for Employee Measures

		Осс	upation			P	arenting Statu	S			
		Teacher	Consultant	η^2		Father	Childless	CBC	η^2		Total
Scale		187	199	•		135	126	125	'		386
Liked	M	5.62	4.9	.13	***	5.39 _a	5.28 _b	$5.07_{\rm b}$.02	*	5.25
	SD	0.86	1.03			1.02	0.96	1.05			1.02
Respected	M	5.79	5.39	.05	***	5.62	5.69	5.44	.01	ns	5.58
	SD	0.90	0.95			0.98	0.88	0.96			0.95
Seek promotion	M	4.68	6.25	.28	***	5.49	5.49	5.49	.00	ns	5.49
promotion	SD	1.48	1.01			1.51	1.43	1.51			1.48
Employer	M	5.56	5.58	.00	ns	5.56	5.70	5.45	.01	ns	5.57
invest in target	SD	1.03	1.04			1.00	0.91	1.17			1.03
Reduce hours	M	2.27	2.05	.01	ns	2.21	2.17	2.08	.00	ns	2.16
or leave	SD	1.30	1.29			1.36	1.20	1.33			1.30
Likelihood to	M	4.32	3.81	.01	***	5.50 _a	4.85 _b	1.69 _c	.62	***	4.05
have a child	SD	2.14	2.05			1.23	1.43	1.21			2.10

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target occupation) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective main effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost columns for occupation and parenting status indicate main effects. Groups not sharing a subscript differ at the p < .05 level using Tukey's HSD tests, if significant main effects were found.

^{*} p < .05. ** p < .01. *** p < .001. ns p > .05.

Table 33
Study 4 - Cell Means, Standard Deviations, Interaction Effects and Simple Effects, and Fisher's LSD Results for Employee Measures

otal η^2	
86	PSxO
.25 .00	ns
.02	
.58 .00	ns
.95	
.49 .00	ns
.48	
.57 .00	ns
.03	
.16 .00	ns
.30	
.05 .01	**
.10	
	2.16 .00 3.30

Note. Numbers under column labels are subsample and sample sizes. Each scale was analyzed using a 2 (target occupation) x 3 (parenting status) ANOVA. Effect sizes are calculated for their respective interaction effects. Conventional small, medium, and large effect sizes for eta-squared (η^2) are .01, .09, and .25, respectively. Rightmost column indicates significance testing for interaction; rightmost column for each gender indicates significance tests of simple effects. Groups not sharing a subscript differ at the p < .05 level using Fisher's LSD tests, conducted if significant simple effects were found. * p < .05. ** p < .01. *** p < .01. *** p < .001. ** p > .05. (blank) not analyzed due to non-significant interaction effect, p > .05.

Table 34
Study 4 - Means, Standard Deviations, and One-Way ANOVA for Salary

		Parental Status		_	
Occupation	Fathers	Childless	Childless-By- Choice	Total (Marginal)	
Teachers					
M	52026.05	50026.87	52064.27	51364.79	ns
SD	13170.19	13963.30	12847.64	13304.68	
n	64	63	60	187	
Consultants					
M	103077.30	102208.80	102208.00	102194.70	ns
SD	16583.73	16688.22	17846.40	16969.86	
n	71	63	65	199	

Note. N = 386. ns indicates one way ANOVA results for each occupation is not significant, p > .05. All salary values in dollars.

Appendix B: Figures

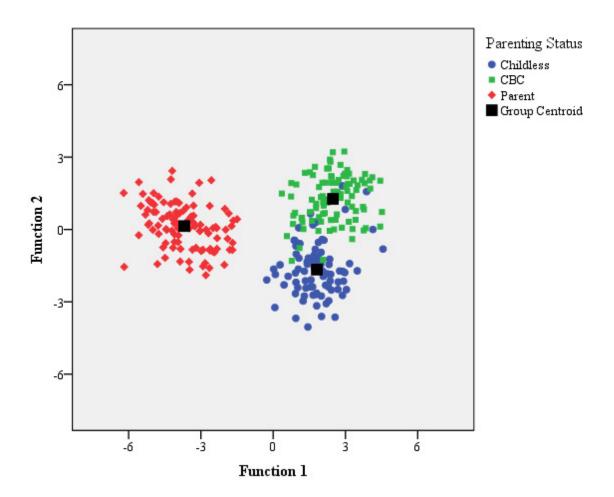


Figure 1. Discriminant function analysis centroid map for female target groups in Study 2. Individual points represent the scores of a specific target group from a specific participant on each function. Black boxes represent the group centroid for each of the three female target groups. See text for further details.

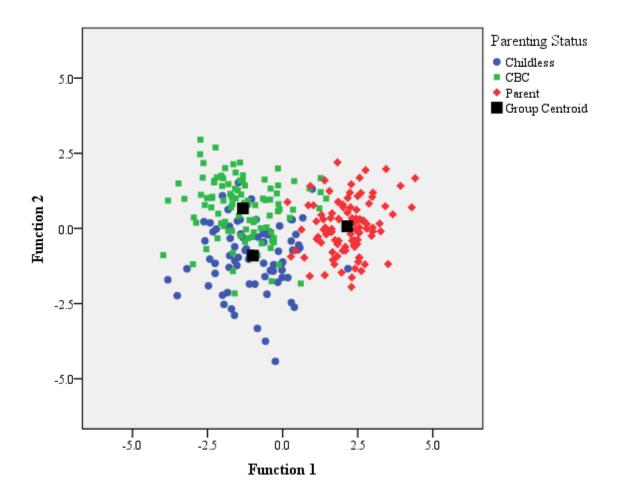


Figure 2. Discriminant function analysis centroid map for male target groups in Study 2. Individual points represent the scores of a specific target group from a specific participant on each function. Black boxes represent the group centroid for each of the three male target groups. See text for further details.

Appendix C: Study 1- Instructions, Group Names, and Group Definitions

Free Response Questionnaire (given online)

Instructions. In the first part of this study, you will be asked to type in attributes that you believe are characteristic of particular groups. Each group will be defined, in case you are unfamiliar with that group.

[Page Title] Women with birds as pets

What characteristics do you believe WOMEN WHO HAVE BIRDS AS PETS possess?

A woman with birds as pets is defined as a woman who has one or more birds, including but not limited to parakeets, parrots, and finches.

1. [] 2. [] 3. [] 4. [] 5. []

(end of page)

Pattern repeats for each of the following groups:

Men with birds as pets

What characteristics do you believe MEN WHO HAVE BIRDS AS PETS possess? A man with birds as pets is defined as a man who has one or more birds, including but not limited to parakeets, parrots, and finches.

Women with cats as pets

What characteristics do you believe WOMEN WHO HAVE CATS AS PETS possess? A woman with cats as pets is defined as a woman who has one or more cats, including but not limited to longhaired, shorthaired, and Maine coon.

Men with cats as pets

What characteristics do you believe MEN WHO HAVE CATS AS PETS possess? A man with cats as pets is defined as a man who has one or more cats, including but not limited to longhaired, shorthaired, and Maine coon.

Women with dogs as pets

What characteristics do you believe WOMEN WHO HAVE DOGS AS PETS possess? A woman with dogs as pets is defined as a woman who has one or more dogs, including but not limited to bulldogs, Chihuahuas, and mixed breeds/mutts.

Men with dogs as pets

What characteristics do you believe MEN WHO HAVE DOGS AS PETS possess? A man with dogs as pets is defined as a man who has one or more dogs, including but not limited to bulldogs, Chihuahuas, and mixed breeds/mutts.

Women who are childless

What characteristics do you believe WOMEN WHO ARE CHILDLESS possess? A woman who is childless is defined as a woman who does not have children, for any reason. These reasons may include choosing not to have children yet, choosing never to have children, infertility, et cetera.

Men who are childless

What characteristics do you believe MEN WHO ARE CHILDLESS possess? A man who is childless is defined as a man who does not have children, for any reason. These reasons may include choosing not to have children yet, choosing never to have children, infertility, et cetera.

Women who are childless-by-choice

What characteristics do you believe WOMEN WHO ARE CHILDLESS-BY-CHOICE possess?

A woman who is childless-by-choice is defined as a woman who has never been a mother, and who has made a conscious decision to never be a mother.

Men who are childless by choice

What characteristics do you believe MEN WHO ARE CHILDLESS-BY-CHOICE possess?

A man who is childless-by-choice is defined as a man who has never been a father, and who has made a conscious decision to never be a father.

Mothers

What characteristics do you believe WOMEN WHO ARE MOTHERS possess? A Mother is defined as a woman who is a parent to one or more children.

Fathers

What characteristics do you believe MEN WHO ARE FATHERS possess? A Father is defined as a man who is a parent to one or more children.

Appendix D: Study 1 - Debriefing Page

(Presented online)

This concludes the study.

As mentioned earlier, the purpose of this study is to determine the attitudes people hold about different groups. Data from both the first part of the study (the free responses) and the second part of the study (the checklists) will be used to craft more detailed, future studies of the attitudes held toward some of the tested groups.

Once again, if you have any questions about the study, or would like to be informed of the results once the data is analyzed, please contact:

Vincent Ciaccio, MA vciaccio@rci.rutgers.edu

In order to receive payment via Mechanical Turk, please enter this code into the appropriate field in MTurk:

4ph3xtvv1n

Appendix E: Study 1 - Demographics

	Frequency	Percentage
Gender		
Female	78	65%
Male	42	35%
Other		
Gender Queer	1	1%
Marital status		
Single	59	48.8%
Married, or in a civil union/domestic partnership	52	43%
Separated	1	1%
Divorced	9	7%
Widowed	0	0%
Are you of Hispanic, Latino, or Spanish origin?		
No	121	100.0%
Yes	0	0%
What is your race? Check all that apply.		
African American	16	13%
American Indian or Alaska Native	2	2%
Asian	11	9%
Caucasian	91	75%
Native Hawaiian or Pacific Islander	0	0%
Other (specify)	O	070
Creole, mixed race	1	1%
Mixed white and black	1	1%
Several	1	1%
	1	1 /0
White American (not from Caucus region)	1	1%
How many children do you currently have?		
nany chiaren ao you currentty nave.		
Zero	74	61%
1	12	91%
2	19	20%
3	8	7%
4 or more	4	3%

	Frequency	Percentage
Which of the following best describes		
your parenting status and intent?		
I am a parent	47	39%
I am not a parent, and I am positive I want to have one or more children	17	14%
I am not a parent, and I pretty sure I want to have one or more children I am not a parent, and I am undecided	12	10%
if I want to have one or more children I am not a parent, and I am pretty sure	20	17%
I don't want to have any children I am not a parent, and I am positive I	8	7%
don't want to have any children	17	14%
Are you currently a student?		
Yes, part-time	5	4%
Yes, full-time	24	20%
No	92	76%
What is the highest level of education you have completed?		
Some high school or less	3	3%
High school diploma	15	12%
Some college	40	33%
Associates Degree	14	12%
Bachelor's Degree	35	29%
Master's Degree	9	7%
Ph.D. or Professional Degree e.g., J.D., M.D., D.D.S)	5	4%
Do you now, or have you previously,		
had primary or equally-shared		
responsibility for a pet?		
Responsibilities include paying for		
pet-related expenses, feeding, cleaning		
up after, and interacting with the		
pet or pets.		
Yes	103	85%
No	18	15%

Which of the following pets do you have now, or have you previously had? I do not have, nor have I ever had, a pet 6 5% Dog 99 82% Cat 67 55% Fish 41 34% Bird 27 22% Hamster 19 16% Rabbit 18 15% Reptile 11 9% Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) 0 5% Gunica pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 <th></th> <th>Frequency</th> <th>Percentage</th>		Frequency	Percentage
I do not have, nor have I ever had, a pet 99 82% Dog 99 82% Cat 67 55% Fish 41 34% Bird 27 22% Hamster 19 16% Rabbit 18 15% Reptile 11 9% Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) Gunica pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Gesee 1 1% Gesee 1 1% Crickets 1 1% Gesee 1 1% Newt 1 1% Rat 1 1% Rat 3 1 1% Rat 5 1 1% Rat 3 1 1% Rat 3 1 1% Rat 3 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 31 Mode 29 Min 18 Max 72			
Dog 99 82% Cat 67 55% Fish 41 34% Bird 27 22% Hamster 19 16% Rabbit 18 15% Reptile 11 9% Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) 0 5% Gunica pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Squirrel 1 1% Participant age (f			
Cat 67 55% Fish 41 34% Bird 27 22% Hamster 19 16% Rabbit 18 15% Reptile 11 9% Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) 3 3% Gunica pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 <t< td=""><td></td><td></td><td></td></t<>			
Fish 41 34% Bird 27 22% Hamster 19 16% Rabbit 18 15% Reptile 11 9% Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) 0 3 3% Others (specify) 0 2 2% Gunica pig 6 5% 5% Mice 2 2% 2 2% Chinchilla 2 2% 2 2% Gerbils 2 2% 2 2% African dwarf frog 1 1% 1% Crickets 1 1% 1% Geese 1 1% 1% Alpacas 1 1% 1% Donkeys 1 1% 1% Crawfish 1 1% 1% Newt 1 1% 1% Squirrel 1 1% 1%	_		
Bird 27 22% Hamster 19 16% Rabbit 18 15% Reptile 11 9% Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) 6 5% Gunica pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 31.11 Mode <			
Hamster			
Rabbit 18 15% Reptile 11 9% Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) 3 3% Guniea pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72			
Reptile 11 9% Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) 3 3% Guniea pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72			
Turtle 10 8% Ferret 7 6% Pig 3 3% Others (specify) 3 3% Guniea pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72		18	15%
Ferret 7 6% Pig 3 3% Others (specify) 3 3% Guniea pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	-	11	9%
Pig 3 3% Others (specify) 6 5% Guniea pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation Median 31 1 Mode 29 Min Min 18 Max 72		10	8%
Others (specify) Guniea pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Ferret	7	6%
Guniea pig 6 5% Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Pig	3	3%
Mice 2 2% Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Others (specify)		
Chinchilla 2 2% Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Guniea pig	6	5%
Gerbils 2 2% Horses 2 2% African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation Median 31 Mode Mode 29 Min Min 18 Max 72	Mice	2	2%
Horses	Chinchilla	2	2%
African dwarf frog 1 1% Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Gerbils	2	2%
Crickets 1 1% Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Horses	2	2%
Geese 1 1% Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation Median 31 Mode Mode 29 Min Min 18 Max 72	African dwarf frog	1	1%
Alpacas 1 1% Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Crickets	1	1%
Donkeys 1 1% Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Walue Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Geese	1	1%
Crawfish 1 1% Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Alpacas	1	1%
Newt 1 1% Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Donkeys	1	1%
Rat 1 1% Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Crawfish	1	1%
Squirrel 1 1% Participant age (free response, in years) Value Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Newt	1	1%
Participant age (free response, in years)ValueMean35.35Standard deviation13.11Median31Mode29Min18Max72	Rat	1	1%
Mean 35.35 Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Squirrel	1	1%
Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Participant age (free response, in years)	Value	
Standard deviation 13.11 Median 31 Mode 29 Min 18 Max 72	Mean	35.35	
Median 31 Mode 29 Min 18 Max 72			
Mode 29 Min 18 Max 72			
Min 18 Max 72			
Max 72			
Kange 54	Range	54	

Appendix F: Study 2 - Instructions, Group Names, and Group Definitions

Title: Ratings Scales

Instructions: In the first part of this study, you will be asked to rate attributes in terms of how much you believe each is characteristic of a particular group.

Each item will be rated on a 1 to 7 scale, where 1 means "Not at all characteristic of the group," and 7 means "Completely characteristic of the group."

The group you will be rating is [GROUP NAME]. A [group individual] is defined as [definition]

How much do you believe each of the following items is characteristic of [GROUP NAME]

Group names and definitions

Women who are mothers: "A **mother** is defined as a woman who is a parent to one or more children."

Men who are fathers: "A **father** is defined as a man who is a parent to one or more children."

<u>Women who are childless</u>: "A **childless woman** is defined as a woman who does not have children, for any reason. These reasons may include choosing not to have children yet, choosing never to have children, infertility, et cetera."

Men who are childless: "A **childless man** is defined as a man who does not have children, for any reason. These reasons may include choosing not to have children yet, choosing never to have children, infertility, et cetera."

<u>Women who are childless-by-choice</u>: "A **childless-by-choice woman** is defined as a woman who has never been a mother, and who has made a conscious decision to never be a mother.

Men who are childless-by-choice: "A childless-by-choice man is defined as a man who has never been a father, and who has made a conscious decision to never be a father.

Scale item format

[Item]

Not at all \circ \circ \circ \circ \circ \circ \circ Completely (1) (2) (3) (4) (5) (6) (7)

Appendix G: Study 2 - Scale Items

(listed alphabetically)

A "real man/woman" Busy Consistent

Active Capable Controlling

Aggressive Career-Oriented Cooperative

Agreeable Carefree Creative

Androgynous Caring Cynical

Angry Child-like Decisive

Anxious Clean Defends own beliefs

Approachable Clever Dependable

Approval seeking Cold Dependent

Arrogant Competent Detached

Articulate Competitive Determined

Asexual Complicated Deviant

Assertive Concerned for the future Devoted to religion

Attentive to appearance Concerned with image Disciplined

Attractive Confident Dislikes children

Big-ego Conformist Does not attend church

Bisexual Confused Domineering

Business Sense Conservative Educated

Efficient Gentle Idealistic

Emotional Giving Impressionable

Energetic Goal-oriented Independent

Enthusiastic Good sense of humor Insecure

Excitable Good-natured Insensitive

Exhausted Gullible Intelligent

Expresses emotion Happy Intense

Extroverted Hard working Interested in children

Family oriented Has broad interests Introverted

Feminine Has common sense Irresponsible

Financially moderate Has high self-esteem Jealous

Financially poor Has leadership ability Kind

Financially secure Has literary capacity Lacking something

Financially wealthy Has low self-esteem Lacks ambition

Flirtatious Helpful Lazy

Forceful Heterosexual Likable

Forgetful Homosexual Likes children

Friendly Honest Lonely

Fun to be around Humble Loose morals

Loving Perfectionist Self-Aware

Loyal Persuasive Self-critical

Married Playful Selfish

Masculine Polite Self-righteous

Materialistic Political Sexually satisfied

Mature Politically Shy

conservative

Mean Politically liberal Sincere

Melodramatic Prejudiced Sinful

Moody Principled Single

Natural Promiscuous Skillful

("sleeps around")

Normal Rational Socially inept

Nosy Rebellious Solemn

Nurturing Refuses to grow up Spiritual

Old Regretful Spoiled

Open minded Respectful Stingy

Optimistic Ruthless Strange

Over-achieving Sad Strong

Partier Satisfied with life Strong personality

Patient Self-reliant Stubborn

Succeeds without effort	Unmasculine	Would be a good boss/supervisor
Superficial	Unselfish	Would be a good coworker
Superstitious	Warm	Would be a good subordinate at work
Tender	Well-intentioned	Would make a bad neighbor
Traditional	Well-rounded	Would make a bad spouse
Typical	Willing to take risks	Would make a good neighbor
Unattractive	Worldly	Would make a good spouse
Weak	Would be a bad boss/supervisor	Yielding
Unhappy	Would be a bad subordinate at work	Young
Attention Checks (1,4,7)		

Appendix H: Study 2 - Composition of A Priori Scales

<u>Female Prescriptions:</u> Warm, Kind, Loyal, Sensitive, Friendly, Interested in children, Clean, Attentive to Appearance, Patient, Polite, Cheerful, Cooperative, Wholesome, Expresses Emotions, Spiritual, Flirtatious, Excitable, Happy, Helpful, Enthusiastic, Optimistic, Creative, Devoted to Religion

Male Prescriptions: Has Business Sense, Athletic, Has Leadership Ability, Self-reliant,
Dependable, Ambitious, Has High Self-esteem, Assertive, Decisive, Strong Personality,
Disciplined, Rational, Competitive, Willing to Take Risks, Consistent, Aggressive,
Intense, Forceful, Intelligent, Mature, Has Common Sense, Has a Good Sense of Humor,
Concerned for the Future, Principled, Efficient, Clever, Defends Own Beliefs, Worldly,
Persuasive

<u>Female Proscriptions:</u> Rebellious, Stubborn, Controlling, Cynical, Promiscuous, Arrogant, Solemn, Self-righteous, Jealous

Male Proscriptions: Emotional, Approval Seeking, Impressionable, Yielding,
 Superstitious, Child-like, Shy, Moody, Melodramatic, Naïve, Gullible, Weak
 Warmth: Friendly, Well-Intentioned, Trustworthy, Warm, Good-Natured, and Sincere.
 Competence: Competent, Confident, Capable, Efficient, Intelligent, and Skillful.

Note: Male and female prescriptions and proscriptions scales were adapted from "What Women and Men Should Be, Shouldn't Be, Are Allowed To Be, and Don't Have To Be: the Contents of Prescriptive Gender Stereotypes," by D.A. Prentice and E. Carranza, 2002, *Psychology of Women Quarterly*, 26, 269-281.

Warmth and Competence scales were adapted from "A Model of (Often Mixed) Stereotype Content: Competence and Warmth Respectively Follow From Perceived Status and Competition," by S. T. Fiske, A.J.C. Cuddy, P. Glick, and J. Xu, 2002, Journal of Personality and Social Psychology, 82(6), 878-902.

Appendix I: Study 2 - Composition of Original Prescriptive and Proscriptive Categories

<u>Intensified Female Prescriptions:</u> Warm, Kind, Loyal, Interested in Children, Sensitive, Friendly, Clean, Attentive to appearance, Patient, Polite, Cheerful, Cooperative, Wholesome, Expresses emotion, Spiritual, Flirtatious, Excitable

Relaxed Female Prescriptions: Intelligent, Mature, High self-esteem, Common sense,
Sense of humor, Concern for future, Principled, Efficient, Rational, Strong Personality,
Athletic, Disciplined, Clever, Self-reliant, Defends own beliefs, Ambitious, Business
Sense, Leadership ability, Worldly, Willing to take risks, Persuasive, Assertive, Intense,
Competitive, Aggressive, Forceful

Intensified Male Prescriptions: Business Sense, Athletic, Leadership Ability, Self-reliant, Dependable, Ambitious, High self-esteem, Assertive, Decisive, Strong Personality), Disciplined, Rational, Competitive, Willing to take risks, Consistent, Aggressive, Intense, Forceful

<u>Relaxed Male Prescriptions:</u> Happy, Friendly, Helpful, Clean, Warm, Kind, Enthusiastic, Optimistic, Cheerful, Cooperative, Interested in Children, Creative, Sensitive, Attentive to appearance, Wholesome, Spiritual, Devoted to religion, Express emotion, Excitable

<u>Intensified Female Proscriptions</u>: Rebellious, Stubborn, Controlling, Cynical, Promiscuous, Arrogant

<u>Relaxed Female Proscriptions:</u> Yielding, Emotional, Impressionable, Child-like, Shy, Naïve, Superstitious, Weak, Melodramatic, Gullible

<u>Intensified Male Proscriptions:</u> Emotional, Approval seeking, Impressionable, Yielding, Superstitious, Child-like, Shy, Moody, Melodramatic, Naïve, Gullible, Weak

<u>Relaxed Male Proscriptions:</u> Rebellious, Solemn, Controlling, Stubborn, Promiscuous, Self-righteous, Jealous, Arrogant

Appendix J: Study 2 – Debriefing Page

(Presented online)

This concludes the study.

As mentioned earlier, the purpose of this study is to determine the attitudes people hold about different groups.

Once again, if you have any questions about the study, or would like to be informed of the results once the data is analyzed, please contact:

Vincent Ciaccio, MA vciaccio@rci.rutgers.edu

In order to receive payment via Mechanical Turk, please enter this code into the appropriate field in MTurk:

3bo3aaptp

Appendix K: Study 2 – Demographics

	Frequency	Percentage
Gender		
Female	373	65%
Male	199	35%
Marital status		
Single	254	44%
Married, or in a civil union/domestic partnership	249	44%
Separated	7	1%
Divorced	55	10%
Widowed	7	1%
Are you of Hispanic, Latino, or Spanish origin?		
No	527	92%
Yes	45	8%
What is your race? Check all that apply.		
African American	51	9%
American Indian or Alaska Native	12	2%
Asian	42	7%
Caucasian	478	84%
Native Hawaiian or Pacific Islander	6	1%
Other (specify)	-	
Mixed	3	1%
Mexican/Mexican-American	3	1%
Hispanic	3	1%
Italian	1	0%
Indo-Caribbean	1	0%
American Indian/White	1	0%
How many children do you currently have?		
Zero	309	54%
1	105	18%
2	91	16%
3	45	8%
4 or more	22	4%

	Frequency	Percentage
Which of the following best describes		
your parenting status and intent?		
I am a parent	264	46%
I am not a parent, and I am positive I want to have one or more children	76	13%
I am not a parent, and I pretty sure I want to have one or more children	46	8%
I am not a parent, and I am undecided if I want to have one or more children	68	12%
I am not a parent, and I am pretty sure I don't want to have any children	43	8%
I am not a parent, and I am positive I don't want to have any children	75	13%
Are you currently a student?		
Yes, part-time	54	9%
Yes, full-time	69	12%
No	449	79%
What is the highest level of education you have completed?		
Some high school or less	5	1%
High school diploma	63	11%
Some college	194	34%
Associates Degree	75	13%
Bachelor's Degree	169	30%
Master's Degree	56	10%
Ph.D. or Professional Degree e.g., J.D., M.D., D.D.S)	10	2%
Participant Age (free response, in years)	Values	
Mean	36.77	
Standard Deviation	13.46	
Median	33	
Mode	23 and 25	
Min	18	
Max	74	
Range	56	
Tung.	50	

115

Disqualified prior to data analysis	
Exited prior to consent/Declined consent	61
Partial data	226
International IP address	29

Failed attention check/unbroken string of single value

Total 431

Appendix L: Studies 3 and 4 - Instructions and Employer Profile: Kindergarten Teacher

Instructions (presented online)

The purpose of this research is to determine how people are able to extrapolate from relatively small amounts of information.

In this part of the study, you will be reading about someone who works at a particular job. In this case, the job is a kindergarten teacher at a local primary school (also known as an elementary school). The employer and job position will be described, followed by a paragraph about the particular worker.

After reading about the job and the worker, you'll be asked to rate the worker on a number of personality attributes, followed by career-related attributes. You'll then be asked a few questions about the nature of the job.

Employer Profile

The employee you will be reading about today works for a grammar school. Grammar schools educate children from the ages of five years old (pre-Kindergarten) through 12 years old (sixth grade). Educationally, **grammar school** primarily focuses on teaching the basics of academic learning, specifically in the areas of arithmetic, English proficiency (such as reading, spelling, vocabulary, and grammar), social studies, and science, and may also include instruction in art, music, and basic computer skills. Grammar schools also teach children basic socialization skills, including how to get along with others. Successful grammar school teachers are typically enthusiastic about working with children, and are good at motivating them and relating to them. Patience and empathy are also important, as some children may have trouble focusing for long periods of time. They need to be organized and have good time-management skills. They are also need to develop a rapport with parents, and follow the instructions of the school principal and administration as necessary. Salary for grammar school teachers typically begins relatively low, and increases with experience. Bonuses based on merit are sometimes awarded. Grammar school teachers typically have the summers off, though many teach summer school to earn more money. Some grammar school teachers supplement their income by tutoring students, or by working a second (part-time) job. There are few direct opportunities for promotion for grammar school teachers, though some may decide to leave the classroom but remain in the education field. Some seek to become school administrators, principals, or superintendents, while others work on curriculum development.

Appendix M: Studies 3 and 4 - Kindergarten Teacher Employee Profile

[Jennifer/Michael] is a 32-year-old Kindergarten teacher who has earned a Bachelor's degree in Elementary Education. [She/He] has been working in his current school for four years. In the course of [her/his] job, [her/his] duties include teaching children the alphabet, including what sounds the letters make and how to write each letter, how to recognize and write numbers and add and subtract single-digit numbers, what the basic shapes and colors are, and how to tell time. [She/He] also plays games with the children, and helps them get along with each other. Outside of the classroom, [Jennifer/Michael] keeps parents up to date on the progress of their children, and meets with the principal to discuss matters of curriculum and class goals. [Jennifer/Michael]'s hobbies include distance running and photography. [Jennifer/Michael] and [her husband/his wife] [are currently childless/have decided to never have children/currently have one child]. They live roughly 45 minutes from [her/his] school in a nearby suburb.

Appendix N: Studies 3 and 4 - Instructions and Employer Profile: Consultant

Instructions (presented online)

The purpose of this research is to determine how people are able to extrapolate from relatively small amounts of information.

In this part of the study, you will be reading about someone who works at a particular job. In this case, the job is a financial consultant at a major consulting company. The employer and job position will be described, followed by a paragraph about the particular worker.

After reading about the job and the worker, you'll be asked to rate the worker on a number of personality attributes, followed by career-related attributes. You'll then be asked a few questions about the nature of the job.

Employer Profile

The employee you will be reading about today works for a leading business consulting company. Business consulting companies assist clients in crafting strategies in a variety of areas. These areas include marketing and sales, employee management, corporate structure, software integration, and fulfilling legal and regulatory requirements. Consultants conduct research, collect and analyze data, and present findings and make recommendations to clients. Successful consultants at leading business consulting companies are ambitious, have keen insight and critical thinking ability, solid writing and presentation skills, and work well independently as well as in teams. Consultants frequently specialize in one topic area or industry. They typically report to more senior **consultants** and executives, and have analysts who report to them. Salary and annual bonuses for inexperienced consultants are moderate, but can reach very high levels as they gain experience and promotions. The job requires long hours, and tight deadlines are frequent. Travel, sometimes including overseas travel, is common. Business trips may last anywhere from a few days to a few months. Compared to other jobs, consultants may not spend much time at the home office, due to business travel. Consultants have opportunities for advancement within their companies, with corresponding increases in responsibility as well as salary and bonuses. They can rise through the ranks to senior business consultant, consulting manager, and possibly even partner. There is a high level of competition for promotions, however, and the competition increases at every step up in title.

Appendix O: Studies 3 and 4 - Employee Profile: Consultant

[Jennifer/Michael] is a 32-year-old **consultant** who has earned an MBA. [She/He] has been working in his current field for four years. When working with a client, [her/his] duties include identifying key issues, conducting interviews, performing analyses, synthesizing conclusions into recommendations, and helping to implement change in his client's organization. [Jennifer/Michael] works independently, as well as with a team. [She/He] reports to senior consultants, and has a number of analysts that report to [her/him]. Outside of the office, [her/his] hobbies include distance running and photography. [Jennifer/Michael] and [her husband/his wife] [are currently childless/have decided to never have children/currently have one child]. They live roughly 45 minutes from [her/his] office in a nearby suburb, and [she/he] typically telecommutes one day a week, when not traveling on business.

Appendix P: Studies 3 and 4 - Instructions for Personality Item Ratings and Scale

Instructions (presented online)

For the next few pages, you will be evaluating [Jennifer/Michael] on a number of different attributes. To what degree do you believe [Jennifer/Michael] possesses each of the following traits? For your convenience, a copy of [Jennifer/Michael]'s Employee Profile will be found at the top of each page.

Sample Personality Item Rating Scale Question (both jobs)

[Item]

Not at all	O	[]	[]	্র	[]	্র	[]	Completely
	1	2	3	4	5	6	7	

Appendix Q: Studies 3 and 4 - Personality Rating Scale Item List

(Presented alphabetically)

Aggressive Clean Disciplined

Agreeable Clever Dislikes Children

Ambitious Cold Does Not Attend

Church

Approval Seeking Competent Efficient

Arrogant Competitive Emotional

Assertive Concerned for the Future Enthusiastic

Athletic Confident Excitable

Attentive to Appearance Conformist Exhausted

Attractive Conservative Expresses Emotions

Bisexual Consistent Family oriented

Busy Controlling Feminine

Capable Cooperative Financially Secure

Career oriented Creative Financially Wealthy

Carefree Cynical Flirtatious

Caring Decisive Forceful

Cheerful Defends Own Beliefs Friendly

Child-like Dependable Gentle

Choosy Devoted to Religion Good-Natured

Gullible Loving Rational

Happy Loyal Rebellious

Has a Good Sense of Humor Mature Ruthless

Has Business Sense Melodramatic Satisfied with Life

Has Common Sense Moody Self-reliant

Has High Self-esteem Naïve Self-righteous

Has Leadership Ability Natural Sensitive

Helpful Normal Sexually Satisfied

Honest Nurturing Shy

Impressionable Optimistic Sincere

Independent Outspoken Sinful

Intelligent Partier Skillful

Intense Patient Solemn

Interested in children Perfectionist Spiritual

Intimidating Persuasive Stingy

Jealous Polite Strange

Kind Prejudiced Strong Personality

Lacks Ambition Principled Stubborn

Likes children Promiscuous Superstitious

Superstitious Warm Worldly Tender Weak Would be a bad subordinate at work Traditional Well-Intentioned Would be a good subordinate at work Trustworthy Wholesome Yielding Typical Willing to Take Risks Young

Uninterested in Children

Appendix R: Studies 3 and 4 - Additional Scales and Measures

Liked scale (three items)

Based on what you read, how much do you like [name]?

Do not like at all (1)...(7) Like extremely much

How much do you believe [name] is liked by [her/his] [principal/bosses and supervisors] and co-workers?

Not at all liked (1)...(7) Extremely liked

How much do you believe [name] is liked by [her/his] [students/subordinates]?

Not at all liked (1)...(7) Extremely liked

Respected scale (three items)

Based on what you read, how much do you respect [name]?

Do not respect at all (1)...(7) Respect extremely much

How much do you believe [name] is respected by [her/his] [principal/bosses and supervisors] and co-workers?

Not at all respected (1)...(7) Extremely respected

How much do you believe [name] is respected by [her/his] [students/subordinates]?

Not at all respected (1)...(7) Extremely respected

Typicality (two items)

How typical do you think [name] is, compared to other [women/men]?

Not at all typical (1)... (7) Extremely typical

How typical do you think [name] is, compared to other [Kindergarten teachers/consultants]?

Not at all typical (1)... (7) Extremely typical

How likely do you think it is that [name] will seek [to leave the classroom to become a school administrator or curriculum developer / a promotion] in the future?

Not at all likely (1)...(7) Extremely likely

Which of the following comes closest to your opinion? (Choose one)

- Michael fits my idea of an American man
- Michael doesn't fit my idea of an American man, and my ideas about what an American man is like can grow to include men like Michael
- Michael doesn't fit my idea of an American man, and I think of men like Michael as being in their own category of American men.

How likely do you believe it is that [name] and [her husband/his wife] will have [a/another] child in the near future?

Not at all likely (1)...(7) Extremely likely

How likely do you think it is that [name] will voluntarily switch to a reduced-hours position, or leave the workforce entirely, within the next few years?

Not at all likely (1)...(7) Extremely likely

Is [name] the kind of person you'd like to get to know better?

Not at all (1)...(7) Extremely

If you [had a young child / were a potential client], to what degree would you want [name] to be [your child's Kindergarten teacher / consultant]?

Would not want at all (1)...(7) Would extremely want

To what degree should [name]'s [school and district / employer] devote time and resources to [her / his] professional development?

None at all (1)...(7) An extremely high amount

<u>Salary Question – Kindergarten job version only</u>

The salary range for most Kindergarten teachers ranges from \$32,450 to \$78,230 per year. What salary do you think [name] deserves?

[Slider ranges from \$26,000 to \$102,000]

Salary Question – Consultant job version only

The salary range for most consultants ranges from \$80,440 to \$137,969 per year. What salary do you think [name] deserves?

[Slider ranges from 65,000 - 150000]

Appendix S: Studies 3 and 4 - Industry-related questions

Nurturing/Ambition

To what degree do you believe being a [Kindergarten teacher / consultant] requires being an Ambitious person?

It does not require it at all (1)...(7) It requires it an extremely high amount

To what degree do you believe being a [Kindergarten teacher / consultant] requires being a Nurturing person?

It does not require it at all (1)...(7) It requires it an extremely high amount

What do you think being a [Kindergarten teacher / consultant] requires more of, being Nurturing or being Ambitious?

More Nurturing (1)...(7) More Ambitious

Career-drive/Work-Life Balance

To what degree do you believe "[Kindergarten teacher / Consultant]" is a good job for someone who is career-driven?

It's an extremely BAD choice (1)...(7) It's an extremely GOOD choice

To what degree do you believe "[Kindergarten teacher / Consultant]" is a good job for someone who wants a good work/life balance?

It's an extremely BAD choice (1)...(7) It's an extremely GOOD choice

Whom do you think a "[Kindergarten teacher / consultant"] job is more suited for, someone who is career-driven, or someone who desires a good work/life balance?

Career-Driven (1)...(7) Work/Life Balance

Appendix T: Studies 3 and 4 - Manipulation Check Items

Instructions

In order to make sure you've been paying attention, we're going to ask a few questions about the employer and employee you've been reading about.

Before we ask the last set of questions, we just want to make sure you were paying attention during the test. Please do not press the "Back" button, as it could very likely erase your previous data!

1. What kind of company does the employee work for?

Restaurant

Law firm

Hospital

[School / business consulting company]

Dance instructor

2. Is the employee male or female?

Male

Female

3. What is the employee's parenting status?

Parent to one child

Parent to five children

Currently has no children

Has decided never to have children

Appendix U: Studies 3 and 4 – Debriefing Page

Thank you for participating in our study. In attitude research, it is sometimes necessary to conceal our hypotheses because when people know what is being studied they often alter their answers to ratings questions. However, we do not want you to leave misinformed, so we will now tell you what we were actually studying.

The purpose of this study is to investigate if people are perceived differently based on their gender and parenting status, and if that perception has an effect on their perceived suitability for certain jobs. In order to test these hypotheses, respondents read about fictional workers in different fields and rated those workers on various personality and job-related items. We apologize that we could not reveal our true hypotheses to you at the beginning of the study, but we hope you can see why it was necessary to keep this information from you. When people know exactly what the researcher is studying, they often change their behavior, thus making their responses unusable for drawing conclusions about human nature and experiences. For this reason, we ask that you please not discuss this study with other people who might participate anytime in the next year. Thank you for your cooperation. If you have any questions about this study, feel free to ask the researcher, Vincent Ciaccio, by email at vincent.ciaccio@rutgers.edu, or his academic advisor, Dr. Richard Contrada, by phone at (732) 445-3195, or by email at contrada@rci.rutgers.edu.

Thank you for your help today. Now that you know the true purpose of this study, please check this box if you would like your data excluded from our study. Whether or not you choose to exclude your data, please click next to continue to the credit page.

[] CHECK ONLY IF YOU WISH TO EXCLUDE YOUR DATA

Appendix V: Study 3 – Demographics

	Frequency	Percentage
Gender		
Female	288	67%
Male	139	32%
Other		
Transgendered	2	0%
Marital status		
Single	178	42%
Married, or in a civil union/domestic partnership	191	45%
Separated	5	1%
Divorced	46	11%
Widowed	9	2%
Are you of Hispanic, Latino, or Spanish origin?		
No	395	92%
Yes	34	8%

	Frequency	Percentage
What is your race? Check all that		
apply.		
African American	30	7%
American Indian or Alaska Native	7	2%
Asian	16	4%
Caucasian	370	86%
Native Hawaiian or Pacific Islander	1	0%
Other (specify)		
"Human"	3	1%
African	1	1%
Afro Caribbean	1	1%
Biracial	1	1%
Black	1	1%
Black British Caribbean	1	1%
Mixed	1	1%
How many children do you currently have?		
Zero	217	51%
1	70	16%
2	79	18%
3	38	9%
4 or more	25	6%
Which of the following best describes your parenting status and intent?		
I am a parent	212	49%
I am not a parent, and I am positive I want to have one or more children I am not a parent, and I pretty sure I	44	10%
want to have one or more children I am not a parent, and I am undecided	31	7%
if I want to have one or more children I am not a parent, and I am pretty sure	42	10%
I don't want to have any children I am not a parent, and I am positive	29	7%
I don't want to have any children	71	17%

_	Frequency	Percentage
Are you currently a student?		
Yes, part-time	33	8%
Yes, full-time	42	10%
No	354	83%
What is the highest level of education you have completed?		
Some high school or less	4	1%
High school diploma	43	10%
Some college	125	29%
Associates Degree	40	9%
Bachelor's Degree	146	34%
Master's Degree	57	13%
Ph.D. or Professional Degree e.g., J.D., M.D., D.D.S)	14	3%
We focused on a specific job in a specific job sector in our study today. While we don't expect people with direct experience in that sector to have answered differently from people who lack that experience, we'd like to analyze that data just in case. Do you, or any of your family or close friends, work at any of the following jobs or job sectors? Select all that apply. Education - Elementary School Teacher (pre-K through 6th		
grade)	96	22%
Other school teacher (7th grade through high school)	49	11%
School administration (Dean, Principal, or District-level)	21	5%
Other Education sector job	56	13%
Business Consultant - mid-sized firm through Big 5 level (any job level)	17	4%
Business Consultant - small or boutique firm (any job level)	19	4%
Business Consultant - solo practice	12	2%
Other Business Consultant - type job	12	2%
None of the above or Prefer not to answer	263	61%

Participant Age (free response, in years)	Values
Mean	37.77
Standard Deviation	12.73
Median	34
Mode	27
Min	18
Max	73
Range	55

Appendix W: Study 4 – Demographics

	Frequency	Percentage
Gender		
Female	256	66%
Male	130	34%
Marital status		
Single	155	40%
Married, or in a civil union/domestic partnership	166	43%
Separated	3	1%
Divorced	52	14%
Widowed	10	3%
Are you of Hispanic, Latino, or Spanish origin?		
No	361	94%
Yes	25	7%
What is your race? Check all that apply.		
African American	27	7%
American Indian or Alaska Native	9	2%
Asian	25	7%
Caucasian	339	88%
Native Hawaiian or Pacific Islander	0	0%
Other (specify)		
Biracial	1	0%
Black/Mexican	1	0%
Latin American	1	0%
How many children do you currently		
have? Zero	197	51%
1	197 69	18%
2		
3	66 34	17% 9%
4 or more		
T OI IIIOIC	20	5%

	Frequency	Percentage
Which of the following best describes		
your parenting status and intent?		
I am a parent	189	49%
I am not a parent, and I am positive I want		
to have one or more children	57	15%
I am not a parent, and I pretty sure I want		
to have one or more children	28	7%
I am not a parent, and I am undecided if	2.2	00/
I want to have one or more children	33	9%
I am not a parent, and I am pretty sure I	27	70/
don't want to have any children	27	7%
I am not a parent, and I am positive I don't want to have any children	52	14%
don't want to have any children	32	1470
Are you currently a student?		
Yes, part-time	24	6%
Yes, full-time	49	13%
No	313	81%
110	313	01/0
What is the highest level of education		
you have completed?		
Some high school or less	3	1%
High school diploma	30	8%
Some college	108	28%
Associates Degree	34	9%
Bachelor's Degree	140	36%
Master's Degree	58	15%
Ph.D. or Professional Degree e.g., J.D.,	20	10,0
M.D., D.D.S)	13	3%
*		

We focused on a specific job in a specific job sector in our study today. While we don't expect people with direct experience in that sector to have answered differently from people who lack that experience, we'd like to analyze that data just in case. Do you or any of your family or close friends, work at any of the following jobs or job sectors? Select all that apply.

Select all that apply.	Frequency	Percentage
Education - Elementary School Teacher		
(pre-K through 6th grade)	100	26%
Other school teacher		
(7th grade through high school)	67	17%
School administration (Dean, Principal,		
or District-level)	25	7%
Other Education sector job	47	12%
Business Consultant - mid-sized firm		
through Big 5 level (any job level)	25	7%
Business Consultant - small or boutique		
firm (any job level)	19	5%
Business Consultant - solo practice	15	4%
Other Business Consultant - type job	9	2%
None of the above or Prefer not to answer	227	59%

Participant Age (free response, in years)	Values
Mean	38.07
Standard Deviation	13.83
Median	34
Mode	30
Min	18
Max	76
Range	58

References

- Abate, M., & Berrien, F. K. (1967). Validation of stereotypes: Japanese versus American students. *Journal of Personality and Social Psychology*, 7(4), 435-438. doi: 10.1037/h0025228
- Ashmore, R. D., & Del Boca, F. K. (1979). Sex stereotypes and implicit personality theory: toward a cognitive--social psychological conceptualization. *Sex Roles*, 5(2), 219-248. doi: 10.1007/BF00287932
- Aud, S., Johnson, W., Kena, F., Roth, E., Manning, E., Wang, X., & Zhang, J. (2012). *The Condition of Education 2012*. Washington, D.C.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155-162. doi: 10.1037/h0036215
- Benard, S., & Correll, S. J. (2010). Normative discrimination and the motherhood penalty. *Gender & Society*, 24(5), 616-646. doi: 10.1177/0891243210383142
- Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. (1972). Sex-role stereotypes: a current appraisal. *Journal of Social Issues*, 28(2), 59-78. doi: 10.1111/j.1540-4560.1972.tb00018.x
- Budig, M. J. (2002). Male advantage and the gender composition of jobs: who rides the glass escalator? *Social Problems*, 49(2), 258-277. doi: 10.1525/sp.2002.49.2.258
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: a new source of inexpensive, yet high-quality data? *Perspectives on Psychological Science*, 6(1), 3-5. doi: 10.1177/1745691610393980
- Bureau of Labor Statistics, U. S. D. o. L. (2014, January 8, 2014). Management Analysts. *Occupational Outlook Handbook, 2014-2015* Retrieved October 8, 2014, from http://www.bls.gov/ooh/business-and-financial/management-analysts.htm
- Callan, V. J. (1983). Perceptions of parenthood and childlessness: a comparison of mothers and voluntarily childless wives. *Population and Environment*, 6(3), 179-189. doi: 10.1007/BF01258959
- Callan, V. J. (1985). Perceptions of parents, the voluntarily and involuntarily childless: a multidimensional scaling analysis. *Journal of marriage and family, 47*(4), 1045-1050. doi: 10.2307/352349
- Catalyst. (2014a). Catalyst quick take: women in the automotive industry. New York: Catalyst.
- Catalyst. (2014b, March 3, 2014). Quick take: statistical overview of women in the workplace Retrieved January 28, 2015
- Cha, Y. (2010). Reinforcing separate spheres: the effect of spousal overwork on men's and women's employment in dual-earner households. *American Sociological Review*, 75(2), 303-329. doi: 10.1177/0003122410365307
- Cha, Y. (2013). Overwork and the persistence of gender segregation in occupations. *Gender & Society*, 27(2), 158-184. doi: 10.1177/0891243212470510
- Cha, Y., & Weeden, K. A. (2014). Overwork and the slow convergence in the gender gap in wages. *American Sociological Review*, 79(3), 457-484. doi: 10.1177/0003122414528936
- Colker, L. J. (2008). Twelve characteristics of effectiive early childhood teachers. *Young Children*, 63(March), 68-74.
- Correll, S. J., Benard, S., & Paik, I. (2007). Getting a job: is there a motherhood penalty? American Journal of Sociology, 112(5), 1297-1338. doi: 10.1086/511799

- Crittenden, A. (2001). *The Price of Motherhood: Why the most important job in the world is still the least valued.* New York: Henry Holt and Company.
- Crosby, F. J., Williams, J. C., & Biernat, M. (2004). The maternal wall. *Journal of Social Issues*, 60(4), 675-682. doi: 10.1111/j.0022-4537.2004.00379.x
- Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues*, 60(4), 701-718. doi: 10.1111/j.0022-4537.2004.00381.x
- Darity Jr., W. A., & Mason, P. L. (1998). Evidence on discrimination in employment: codes of color, codes of gender. *The Journal of Economic Perspectives*, 12(2), 63-90. doi: 10.1257/jep.12.2.63
- Devine, P. G., & Elliot, A. J. (1995). Are racial stereotypes really fading? The Princeton Trilogy revisited. *Personality and Social Psychology Bulletin, 21*(11), 1139-1150. doi: 10.1177/01461672952111002
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt, Brace, Jovanovich.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573-598. doi: 10.1037/0033-295X.109.3.573
- Eagly, A. H., & Steffen, V. J. (1984). Gender stereotypes stem from the distribution of women and men into social roles. *Journal of Personality and Social Psychology*, 46(4), 735-754. doi: 10.1037/0022-3514.46.4.735
- Eccles, J. S. (1987). Gender roles and women's achievement-related decisions. *Psychology of Women Quarterly, 11*, 135-172. doi: 10.1111/j.1471-6402.1987.tb00781.x
- Eckes, T. (1994). Explorations in gender cognition: content and structure of female and male subtypes. *Social Cognition*, 12(1), 37-60. doi: 10.1521/soco.1994.12.1.37
- Eckes, T. (2002). Paternalistic and envious gender stereotypes: testing predictions from the Stereotype Content Model. *Sex Roles*, 47(3/4), 99-114. doi: 10.1023/A:1021020920715
- Feldman, J. M. (1972). Stimulus characteristics and subject prejudice as determinants of stereotype attribution. *Journal of Personality and Social Psychology*, 21(3), 333-340. doi: 10.1037/h0032313
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (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. doi: 10.1037/0022-3514.82.6.878
- Fiske, S. T., Lin, M., & Neuberg, S. L. (1999). The continuum model: ten years later. In Y. Trope & S. Chaiken (Eds.), *Dual process theories in social psychology* (pp. 231-254). New York: Guilford Press.
- Fiske, S. T., Neuberg, S. L., & Beattie, A. E. (1987). Category-based and attribute-based reactions to others: some informational conditions of stereotyping and individuating processes. *Journal of Experimental Social Psychology*, 23, 399-427. doi: 10.1016/0022-1031(87)90038-2
- Fuegen, K., Biernat, M., Haines, E., & Deaux, K. (2004). Mothers and fathers in the workplace: how gender and parental status influence judgments of job-related competence. *Journal of Social Issues*, 60(4), 18. doi: 10.1111/j.0022-4537.2004.00383.x

- Ganong, L. H., & Coleman, M. (1995). The Content of Mother Stereotypes. *Sex Roles*, 32(7/8), 495-512. doi: 10.1007/BF01544185
- Giles, D., Shaw, R. L., & Morgan, W. (2009). Representations of Voluntary Childlessness in the UK Press, 1990-2008. *Journal of Health Psychology, 14*(8), 1218-1228. doi: 10.1177/1359105309346341
- Griswold, A. (2014). Here's what consultants actually do all day. *Business Insider*. Retrieved from http://www.businessinsider.com/what-consultants-do-2014-2
- Heilman, M. E. (2001). Description and prescription: how gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, *57*(4), 657-674. doi: 10.1111/0022-4537.00234
- Heilman, M. E., & Okimoto, T. G. (2008). Motherhood: a potential source of bias in employment decisions. *Journal of Applied Psychology*, *93*(1), 189-198. doi: 10.1037/0021-9010.93.1.189
- Heilman, M. E., & Wallen, A. S. (2010). Wimpy and undeserving of respect: penalties for men's gender-inconsistent success. *Journal of Experimental Social Psychology*, 46, 664-667. doi: 10.1016/j.jesp.2010.01.008
- Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for success: reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, 89(3), 416-427. doi: 10.1037/0021-9010.89.3.416
- Henz, U. (2006). Informal caregiving at working age: effects of job characteristics and family configuration. *Journal of marriage and family, 68*(2), 411-429. doi: 10.1111/j.1741-3737.2006.00261.x
- Hilton, J. L., & von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology*, 47, 237-271. doi: 10.1146/annurev.psych.47.1.237
- Horowitz, L. M., Wilson, K. R., Turan, B., Zolotsev, P., Constantino, M. J., & Henderson, L. (2006). How interpersonal motives clarify the meaning of interpersonal behavior: a revised circumplex model. *Personality and Social Psychology Review*, 10(1), 67-86. doi: 10.1207/s15327957pspr1001 4
- Jamison, P. H., Franzini, L. R., & Kaplan, R. M. (1979). Some assumed characteristics of voluntarily childfree women and men. *Psychology of women quarterly*, 4(2), 8. doi: 10.1111/j.1471-6402.1979.tb00714.x
- Katz, D., & Braly, K. (1933). Racial stereotypes of one hundred college students. *Journal of Abnormal and Social Psychology*, 28, 280-290. doi: 10.1037/h0074049
- Kaufman, G., & Uhlenberg, P. (2000). The influence of parenthood on the work effort of married men and women. *Social Forces*, 78(3), 931-947. doi: 10.1093/sf/78.3.931
- Labor, U. S. D. o. (2010). Women in the Labor Force 2010 Retrieved 08/30/2014, from http://www.dol.gov/wb/factsheets/Qf-laborforce-10.htm
- LaMastro, V. (2001). Childless by choice? Attributions and attitudes concerning family size. *Social Behavior and Personality*, 29(3), 13. doi: 10.2224/sbp.2001.29.3.231
- Lampman, C., & Dowling-Guyer, S. (1995). Attitudes toward voluntary and involuntary childlessness. *Basic and Applied Social Psychology*, *17*(1&2), 10. doi: 10.1080/01973533.1995.9646140
- Lee, T. L., & Fiske, S. T. (2006). Not an outgroup, not yet an ingroup: immigrants in the stereotype content model. *International Journal of Intercultural Relations*, 30, 751-768. doi: 10.1016/j.ijintrel.2006.06.005
- Lee, Y., & Tang, F. (2013). More caregiving, less working. *Journal of applied Gerontology*, 20(10), 1-19. doi: 10.1177/0733464813508649

- Lippmann, W. (1922). Public Opinion. New York: Macmillan.
- Madon, S. (1997). What do people believe about gay males? A study of stereotype content and strength. *Sex Roles*, *37*(9/10), 663-685. doi: 10.1007/BF02936334
- Monte, L. M., & Ellis, R. R. (2014). Fertility of women in the United States: June 2012 *Current Population Reports* (pp. P20-575). Washington, DC: U.S. Census Bureau
- Moss-Racusin, C. A., Phelan, J. E., & Rudman, L. A. (2010). When men break the gender rules: status incongruity and backlash against modest men. *Psychology of Men & Masculinity*, 11(2), 140-151. doi: 10.1037/a0018093
- Mueller, K. A., & Yoder, J. D. (1999). Stigmatization of non-normative family size. *Sex Roles*, 41(11/12), 19. doi: 10.1023/A:1018836630531
- National Science Foundation, N. C. f. S. a. E. S. (2013). Characteristics of scientists and engineers in the United States: 2008 (pp. Detailed Statistical Tables NSF 13-320). Arlington, VA: National Science Foundation.
- Oswald, P. A. (2003). Sex-typing and prestige ratings of occupations as indices of occupational stereotypes. *Perceptual and Motor Skills*, *97*, 953-959. doi: 10.2466/PMS.97.7.953-959
- Park, K. (2002). Stigma management among the voluntarily childless. *Sociological Perspectives*, 45(1), 21-45. doi: 10.1525/sop.2002.45.1.21
- Parker, K., & Wang, W. (2013). Modern parenthood: roles of moms and dads converge as they balance work and family (pp. 1-66). Washington, D.C.: Pew Research Center.
- Polit, D. F. (1978). Stereotypes relating to family-size status. *Journal of Marriage and Family*, 40(1), 105-114. doi: 10.2307/350612
- Prentice, D. A., & Carranza, E. (2002). What women and men should be, shouldn't be, are allowed to be, and don't have to be: the contents of prescriptive gender stereotypes. *Psychology of Women Quarterly*, 26, 269-281. doi: 10.1111/1471-6402.t01-1-00066
- Richards, Z., & Hewstone, M. (2001). Subtyping and subgrouping: processes for the prevention and promotion of stereotype change. *Personality and Social Psychology Review*, 5(1), 52-73. doi: 10.1207/S15327957PSPR0501_4
- Riggs, J. M. (1997). Mandates for mothers and fathers: perceptions of breadwinners and care givers. *Sex Roles*, 37(7/8), 565-580. doi: 10.1023/A:1025611119822
- Ross, J., Zaldivar, A., Irani, L., & Tomlinson, B. (2010). Who are the Turkers? Worker demographics in Amazon Mechanical Turk. Paper presented at the ACM Conference on Human Factors in Computing Systems, Atlanta, GA.
- Rudman, L. A. (1998). Self-promotion as a risk factor for women: the costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology*, 74(3), 629-645. doi: 10.1037/0022-3514.74.3.629
- Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, *57*(4), 743-762. doi: 10.1111/0022-4537.00239
- Russo, N. F. (1976). The motherhood mandate. *Journal of Social Issues*, *32*, 143-154. doi: 10.1111/j.1540-4560.1976.tb02603.x
- Schütz, H., & Six, B. (1996). How strong is the relationship between prejudice and discrimination? A meta-analytic answer. *International Journal of Intercultural Relations*, 20(3/4), 441-462. doi: 10.1016/0147-1767(96)00028-4

- Sherriffs, A. C., & McKee, J. P. (1957). Qualitative aspects of beliefs about men and women. *Journal of Personality*, 25(4), 451-464. doi: 10.1111/j.1467-6494.1957.tb01540.x
- Shields, S. A., & Cooper, P. E. (1983). Stereotypes of traditional and nontraditional childbearing roles. *Sex Roles*, *9*(3), 14. doi: 10.1007/BF00289671
- Spence, J. T., & Buckner, C. E. (2000). Instrumental and expressive traits, trait stereotypes, and sexist attitudes. *Psychology of Women Quarterly*, 24, 44-62. doi: 10.1111/j.1471-6402.2000.tb01021.x
- Staats, G. R. (1978). Stereotype content and social distance: changing views of homosexuality. *Journal of Homosexuality*, 4(1), 15-27. doi: 10.1300/J082v04n01 02
- Troilo, J., & Coleman, M. (2008). College student perceptions of the content of father stereotypes. *Journal of Marriage and Family*, 70(1), 218-227. doi: 10.1111/j.1741-3737.2007.00473.x
- United States Bureau of Labor Statistics. (2013). Women in the labor force: a databook. Washington, DC.
- United States Census Burearu. (2011). Women's history month: March 2011. *Profile America: facts for features* Retrieved January 25, 2015, 2015, from http://www.census.gov/newsroom/releases/archives/facts_for_features_special_ed itions/cb11-ff04.html
- United States Department of Defense. (2014). 2013 Demographics profile of the military community (pp. i-ix). Washington, D.C.: United States Department of Defense.
- United States Department of Education, N. C. f. E. S. (2011). Degrees conferred by degree-granting institutions, by level of degree and sex of student; selected years, 1869-70 through 2020-21. Retrieved 2/20/15, 2014, from http://nces.ed.gov/programs/digest/d11/tables/dt11 283.asp
- United States Department of Justice, F. B. o. I. (2010). Uniform Crime Report: crime in the United States, 2009 Table 74. Washington, D.C.
- Veevers, J. E. (1973). Voluntary childlessness: a neglected area of study. *The Family Coordinator*, 22(2), 199-205. doi: 10.2307/582108
- White, R. Advancement opportunities in a teaching career Retrieved Oct 8, 2014, from http://work.chron.com/advancement-opportunities-teaching-career-15764.html
- Williams, C. L. (1992). The glass escalator: hidden advantages for men in the "female" professions. *Social Problems*, 39(3), 253-267. doi: 10.2307/3096961
- Williams, J. (2001). *Unbending gender: why work and family conflict and what to do about it.* Oxford, UK: Oxford University Press.
- Williams, J. E., & Bennett, S. M. (1975). The definition of sex stereotypes via the Adjective Check List. *Sex Roles*, 1(4), 327-337. doi: 10.1007/BF00287224
- Wood, W., & Eagly, A. H. (2002). A cross-cultural analysis of the behavior of women and men: implications for the origins of sex differences. *Psychological Bulletin*, 128(5), 699-727. doi: 10.1037/0033-2909.128.5.699