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Perceived Choices: Perceptions of Mothers' Devotion to "Family or Work" or "Family and Work"

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Perceived Choices: Perceptions of Mothers' Devotion to "Family *or* Work" or
"Family *and* Work"

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Partial Fulfillment of the
Requirements for the Degree of
Master of Arts

By
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Biography

The author was born in Valparaiso, IN, October 20th, 1986. She graduated from Wheeler High School in Valparaiso, IN in 2005 and received her Bachelor of Science degree in Psychology from Indiana University Northwest in Gary, IN in 2011.

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Abstract

The role of motherhood is culturally associated with reduced performance expectations and lower performance evaluations. This is referred to as the motherhood penalty. Social role theory (Eagly, 1984), the stereotype content model (Fiske, Cuddy, Glick, & Xu, 2002) and the lack of fit model (Heilman, 1984, 2001) suggest that stereotypes regarding how women *are* and how they *should be* drive these perceptions. When mothers express strong devotion to work over family (i.e., devotion orientation) the motherhood penalty appears to be minimized. However, having to claim that work is central to their lives (i.e., work-devotion) to avoid being penalized can impede important progress women have made in the workplace. This study explored the effects of motherhood status and devotion orientation on the evaluation of female employees in male-typed roles by utilizing a 2 (motherhood status: children, no children) x 3 (devotion orientation: work-devoted, family-devoted, work-and-family devoted) between subjects factorial design, which resulted in six hypothetical female employee profiles. 700 participants were recruited via Amazon Mechanical Turk. Each participant read information about one of the hypothetical employees and then evaluated her on several work- and family-related dimensions (e.g., warmth, competence, likeability, promotability, commitment to family). Although the motherhood penalty was not replicated, devotion orientation had significant effects on others perceptions of female employees. In particular (and as predicted), work-devoted women were viewed most favorably on work-related

dimensions (i.e., commitment, dependability, likelihood to be promoted and trained) and least favorably on family-related dimensions (i.e., parental effectiveness, commitment to family) compared to their family-devoted counterparts. This is consistent with prior research suggesting that women make a trade-off when holding dual work and family roles. Work-and-family devoted women, on the other hand, did not appear to make this trade-off. Rather, they were perceived as relatively effective (i.e., less than work-devoted women, but more than family-devoted women) in both work and family contexts. This suggests that when women can positively impact others' perceptions of their work- and family-related abilities by making their desires clear rather than leaving it up to others to make assumptions based on limited information.

Introduction

In the past 50 years, women have made significant progress toward comprising a larger part of the workforce. However, despite their presence in quantity, women's median weekly income still hovers around 82% that of men's (Bureau of Labor Statistics, 2013a). In addition, women are noticeably lacking in leadership positions as well as in occupations traditionally dominated by males. For example, in the United States, women make up roughly 95% of secretarial and childcare jobs (i.e., female-dominated industries). Yet, they occupy less than 25% of craft, laborer, or operator jobs and less than 30% of manufacturing jobs (i.e., male-dominated industries; Bureau of Labor Statistics, 2013c; Catalyst, 2013). Still, this occupational segregation cannot fully explain the gender gap in earnings (Budig & England, 2001). Instead, research suggests that this persistent gender segregation may be due, in part, to stereotypes regarding what *is* and *is not* appropriate for men and women (i.e., gender stereotypes; Heilman, 2012). In particular, gender biases are present in the perception that women, when compared to men, will be warmer but less competent, less dependable, and less committed employees. As a result of these evaluative gender biases, women are less likely to be selected for hiring and promotion, or to be given resources or funding for training and skill improvement, which ultimately impedes their career progression (Cuddy, Fiske, & Glick, 2004; Heilman & Okimoto, 2008).

Gender biases in the workplace are exacerbated when women become mothers as the motherhood role often activates a set of stereotypes specific to caregiving (Cuddy et al., 2004; King, 2008). In fact, occupation of or potential to

take on the motherhood role has become such a powerful source of bias for working women that the “glass ceiling” is no longer an accurate representation of the issues women face as employees (Budig & England, 2001; Crittenden, 2001; Waldfogel, 1998). This becomes evident when comparing the median weekly earnings of full-time male and female workers with or without children under the age of 18. Specifically, women without children under the age of 18 earn 87% that of men without children. However, a more substantial discrepancy occurs when comparing men and women *with* children. In particular, women with children earn 74% that of their male counterparts. Women with children under 6 years of age are subjected to the largest gap in wages (earning 67.5% that of their male counterparts; Bureau of Labor Statistics, 2013d). These statistics tell a compelling story as they provide clear evidence that parenthood results in a widening of the gender wage gap, with women (especially those with young children) put in a highly disadvantaged position. In line with these data, research in the social sciences is providing evidence suggesting that the gender wage gap is due less to factors known to affect wages (e.g., occupational segregation, part-time work, taking time off for childbirth) and more to motherhood (Budig & England, 2001).

Thus, the current gender gap in wages may be better explained by comparing “mothers” versus “others” (Crittenden, 2001). When women become mothers, their career progress seems to stall as it hits a proverbial “maternal wall”, putting them at a disadvantage in the workplace compared to fathers and other childless workers (Crosby, Williams, & Biernat, 2004; Williams, 2001).

Research examining pregnancy discrimination suggests that these maternal biases are triggered even *before* a woman gives birth, at the time her pregnancy becomes visible in the workplace or when others anticipate she is due to start having children (e.g., after marriage; Halpert, Wilson, & Hickman, 1993; Hebl, King, Glick, Singletary, & Kazama, 2007).

The disadvantaged position of mothers in the workplace is not limited to a gap in pay. When a woman shows evidence of preparing for motherhood, being pregnant, or having children, those observing her begin to view her less favorably than other employees (i.e., fathers and childless male and female counterparts). Consequently, women are penalized for motherhood (i.e., “the motherhood penalty”; Williams, 2001) and are offered fewer opportunities in the workplace because of it (Cuddy et al., 2004; Heilman & Okimoto, 2008). It is important to note that the penalty for motherhood is worsened in male-typed organizations and appears to emerge regardless of displays of high performance (Heilman & Okimoto, 2007).

Quite recently, a study suggested that certain situations exist in which women may *not* be penalized for motherhood. For example, working mothers may be perceived similarly to working fathers when they express a strong devotion to work over family (Aranda & Glick, 2013). This research concluded that working mothers may have some control over how they are perceived in the workplace after all.

Over the past ten years, research exploring the motherhood penalty seems to have diminished. This study was conducted to replicate and extend prior work

in this area in order to renew interest in the space while also examining whether preceding results and implications still hold true. More specifically, the current research was conducted to serve two important purposes: first, it investigates whether the motherhood penalty is still alive and well. That is, can the motherhood penalty still be replicated today? Second, the research extends recent work to explore how mothers' self-reported devotion to work, family, or both affects the likelihood that working mothers will be hired, promoted, or invested in (e.g., trained).

Literature Review

There is a substantial body of research exploring the effects of gender discrimination in the workplace. As noted above, there is also a body of literature that has focused more specifically on discrimination against working parents resulting from perceptions of their competence and capabilities in the workplace (Budig & England, 2000; Cuddy et al., 2004). The perceptions held about mothers, in particular, seem to involve subtle discrimination such that when women become mothers, they are less likely to be hired, promoted, and invested in (Cuddy et al., 2004). To explain the mechanisms and effects underlying this assertion, several theories will be introduced that help explain *how* and *why* mothers are viewed less favorably in the workplace. Next, empirical research is presented to support the existence of a motherhood penalty and finally, a new direction is proposed and tested to provide further insight into workplace discrimination as well as to suggest methods to minimize or mitigate its existence.

Differing Viewpoints on Gender Discrimination

There are various perspectives and explanations for why there may (or may not be) persistent gender differences in the workplace. For example, O'Neill (2003) suggests that it is a woman's maternal instinct and desire to occupy a caregiver role that ultimately creates a gender gap in earnings. That is, her choice of career is guided by her motivations and needs that stem from her natural, and in some accounts, biological instinct to be maternal (i.e., nurturing). Proponents of this argument (e.g., Furchtgott-Roth & Stolba, 1999), counter the existence of the motherhood penalty altogether and instead suggest, "equality of opportunity now reigns" for men and women in our society.

In contrast, others argue that time-honored workplace ideals inhibit women from succeeding in a variety of jobs, particularly those that are largely dominated by men (Crosby et al., 2004). To elaborate, the "ideal worker" is one who willingly and consistently devotes intensive effort on the job and shows an inclination to work long hours and late nights (Ridgeway & Correll, 2004). In other words, the "ideal worker" is one who is basically "unencumbered" and thus, is able to devote his or her entire adult life to a career without pause. However, this expectation is quite problematic for women, as unlike men, they often need to take time off for maternity leave. Additionally, it is women who, while equally present in the workforce, still maintain responsibility for 70-80% of childrearing (Williams, 2001) and between 58-67% of all household work, depending on the presence of children who are in charge of a small percentage of chores (Gershuny

& Sullivan, 2014). This renders women—especially those who have or want children—as simply unable to stand up to such ideals.

Notwithstanding such arguments, there is a growing body of literature suggesting that mothers, especially those who deviate from traditional gender roles, are indeed discriminated against in the workplace (Etaugh & Folger, 1998; Glick & Fiske, 1999; Ridgeway & Correll, 2004). This discrimination results in a penalty for motherhood that exists even after controlling for other explainable factors affecting wages (e.g., maternity leave, occupational segregation, part-time work). For example, employed mothers suffer, on average, a five percent wage penalty per child (Budig & England, 2001). Moreover, mothers are held to stricter standards in the workplace and are also judged as less committed to employment (Fuegan, Biernat, Haines, & Deaux, 2004). These motherhood penalties appear to be rooted in gender stereotypes regarding the appropriate roles and behavior for men and women.

Stereotypes, Prejudice, and Discrimination

There are three distinct but related cognitive mechanisms—stereotyping, prejudice, and discrimination—that may lead certain groups to be viewed more or less favorably than others. From a young age, observers begin to place objects, people, and things into groups based on their similarities. This is the process of automatic categorization and it allows individuals to effectively navigate a complex and ever-changing environment (Fiske, 2010). In other words, observers automatically attend to certain features or status cues in the environment to help organize and integrate a large amount of incoming information into categories

(Devine, 1989). Gender, for example, is a readily visible status cue by which individuals can be identified and automatically grouped (Ridgeway & Correll, 2004).

Considered on its own, the process of categorization is relatively harmless. Over time, however, categories become associated with culturally constructed and widely held beliefs or expectations about their members (Hamilton & Troler, 1986). That is, groups and categories become highly connected with certain stereotypes (i.e., characteristics ascribed to individuals based on their perceived association with a social group; Hilton & von Hippel, 1996). This can become problematic as stereotypes often lead to the formation of affective judgments, or prejudices, that are characterized by positive or negative feelings towards certain groups (Eagly & Mladinic, 1989; Fiske, 2000; Stephan & Stephan, 1996). Moreover, stereotypes are often used to guide expectations of how individuals perceived to be part of a group *should* and *should not* behave (Rudman & Glick, 1999). Finally, and perhaps the most concerning, prejudice can guide behavior toward individuals resulting in discrimination and unfair treatment of groups based on their actual or perceived traits (Hilton & von Hippel, 1996).

Cognitive bias, or the tendency to create mental associations between categories and attributes, is another important factor to consider in the manifestation of discrimination (Bernard, Paik, & Correll, 2008). In the workplace, biases may develop when an employer assumes that employees will conform to a certain stereotype based on perceived group belonging (Feldman, 1981). This can occur regardless of whether an employee truly belongs to a

certain group, and irrespective of their behavior and job performance. Thus, even a highly dependable, high-performing working mother may be perceived as less committed or promotable than her childless co-workers due to the assumption that she will be more devoted to her family than to her work. This can lead to disadvantages in the workplace as perceptions of commitment are related to several workplace outcomes (e.g., turnover intentions, supervisory ratings of performance; Shore & Martin, 1989). For example, an employer may assume that working mothers prefer to work fewer hours or do not want to take on increased responsibility or complexity due to childcare commitments. As such, the employer may reduce his/her expectations of the mother's job-related competence and thus, will be less likely to consider her for promotions, and training or development opportunities. Clearly, the relatively innocuous and even useful cognitive mechanism of categorization and stereotyping can get dangerous quite quickly.

Gender Stereotypes

Gender is a status cue by which individuals are readily grouped. Gender stereotypes, then, are generalized beliefs about how women and men *are* (i.e., descriptive gender stereotypes) and how they *should be* (i.e., prescriptive gender stereotypes). Gender stereotypes give rise to biased judgments and decisions, which can impede women's advancement in the workplace (Heilman, 2012).

Social role theory posits that stereotypes about male and female behavior stems from observing them in differing social roles and subsequently, deducing that the larger group to which they belong always possesses such traits (Diekman

& Eagly, 2000; Eagly & Steffen, 1984, 1986; Eagly & Wood, 2012; Eagly, Wood, & Diekmann, 2000). This builds the foundation for the formation of gender stereotypes, as social roles (e.g., parenthood) become associated with a certain set of expectations and anticipated behaviors based on years of observation and guided by social norms.

Traditionally, women have been associated with caretaking roles, which involve being responsible for the bulk of household chores, childrearing, and care of dependents (e.g., elderly parents; Eagly & Wood, 2012). Women are also more likely to occupy roles that involve caretaking outside of the home (e.g., nursing, daycare, teaching). Over time, this led to the inference that women are communal—warm, kind, caring, collaborative, and obedient. Men, in contrast, are more likely to be in “provider” or “breadwinner” roles that require them to steadfastly work long and potentially draining hours outside of the home to adequately provide for their families. Accordingly, they are thought to possess agentic traits characterized by being assertive, dominant, logical and decisive (Deaux, 1984; Eagly & Steffen, 1984). These two distinct sets of traits (i.e., communal, agentic) reflect behaviors associated with specific roles and thus, drive others’ evaluations regarding how people perceived to occupy each role *are* and how they *should be*. According to this theory, men and women are expected to be innately different with each group lacking the traits held by the opposite sex. Further, the theory posits that views regarding these roles spill over into various contexts (e.g., the workplace) creating a situation in which men and women are expected to display vastly different behaviors, even in identical roles.

Stereotype Content Model

The stereotype content model (SCM) suggests that stereotypes do not involve singular feelings of hostility and prejudice, but rather involve mixed positive and negative emotions (Fiske, Cuddy, & Glick, 2007; Fiske, Cuddy, Glick, & Xu, 2002). The dimensions of competence and warmth are central to this model as it predicts that stereotypes often fall high on one dimension and low on the other (e.g., high on warmth and low on competence or vice versa). The idea is that when forming perceptions of individuals, a perceiver is interested in determining the other person's (i.e., the one being perceived) intent and capabilities. Thus, upon encountering an individual, observers immediately and automatically make two decisions—first, they determine what the other person's intentions are towards them and second, they determine whether the person is capable of acting on those intentions. A person's intent corresponds to perceptions of warmth (e.g., do they have ill intentions) whereas a person's capability corresponds to perceptions of competence (e.g., do they have the necessary wherewithal to act on their objectives). The model assumes that a combination of warmth and competence can predict behavior and emotions directed towards a variety of groups.

From a SCM perspective, working mothers can be perceived in one of two ways—1) as competent and cold (i.e., nontraditional; as a professional woman aiming to advance in the organization) or 2) as incompetent and warm (i.e., traditional; occupying a caregiving role). These views elicit divergent feelings of

envy and pity, respectively, with professional women regarded as competitors in the workplace and therefore objects of envy whilst caregivers are written off as harmless and in need of protection (Cuddy et al., 2004; Eckes, 2002; Fiske et al., 2007).

In combining predictions from social role theory and the SCM, it becomes evident that the way an employed woman is perceived largely depends on the social role(s) she occupies (e.g., married, mother) and whether she is deemed as traditional (i.e., a warm, communal caregiver) or nontraditional (i.e., a competitive and competent, yet cold and perhaps threatening).

Lack of Fit Model

The Lack of Fit model was proposed to explain how the mismatch between stereotypes and the perceived requirements for certain jobs puts women at a disadvantage (Heilman, 1983; 2001). The model posits that a matching process exists such that evaluators compare their existing stereotypes regarding a certain group to which an individual belongs (or is perceived to belong) with another set of stereotypes regarding the perceived job or role requirements. As a result, some jobs become gender-typed such that they are assumed to be more suitable for males (i.e., male-typed) or more suitable for females (i.e., female-typed). When individuals are seemingly mismatched with the job-type they populate (e.g., a female in a male-typed job), biases and prejudices can emerge. The greater the perceived inconsistency that exists between what is expected of the individual based on their gender role and what is deemed important based on the job-type, the more negative the evaluation of the individual's performance.

For example, a woman is expected to be deferential and cooperative while a supervisor is supposed to be assertive and dominant. Noticeably, issues may arise for a woman in a supervisor role due to these opposing expectancies. Thus, a perceived lack of fit often results in discrimination aimed at the individual occupying the role (Heilman, 2012). For women, this is common when they occupy a position in a male-dominated organization and in particular, when they take on a social role that makes their female traits more salient (e.g., marriage, pregnancy, or motherhood).

Women in Male-Typed Jobs

When a woman shows evidence of becoming or being a mother, perceptions of her femininity are enhanced and she is perceived as even more stereotypically female than her childless female counterpart (Heilman & Okimoto, 2007). This has implications in the workplace as observers may expect female employees with children to display behaviors or occupy job roles that are even more similar to what is expected of them stereotypically than childless female employees. Importantly, this may not be as relevant for women in female-dominated industries (e.g., nursing, childcare, elementary education) as stereotypical female traits are consistent with the job-related traits deemed necessary for these occupations. For example, both a mother and a nurse are expected to display warmth and caring; thus, women in nursing (or other care-related professions) tend to be rated as warm, likeable, and competent as their behavior is often consistent with what is expected of them (Heilman, Wallen,

Fuchs, & Tamkins, 2004; Ridgeway & Correll, 2004). Conversely, this is not the case in jobs that are typically dominated by men.

Fields that have been historically dominated by men are especially difficult for women to break into (e.g., engineering, mechanics; Hoyt, 2012). Because men have traditionally employed roles in these fields, the occupations themselves have become strongly associated with masculine (i.e., agentic) stereotypes. As such, it is often thought that to be successful, one needs to exhibit largely male characteristics and behaviors. Further, when a woman occupies a role in a male-dominated occupation such as engineering, she garners observers' conscious attention as the inconsistency of her presence in a "man's role" requires energy to reconcile. It follows, then, that mothers whose feminine natures are more salient than the typical childless female employee (Heilman & Okimoto, 2007) may be especially noticeable in these roles. This signals a lack of fit as observers become highly aware of the inconsistency between the masculine role and the "feminine" employee. Naturally and perhaps unconsciously, the observer will attempt to resolve this dissonance—which often occurs through ascribing less favorable evaluations to women in incongruent roles (Eagly & Karau, 2002; Heilman, 1983). That is, an observer assumes that the lack of fit must mean the woman does not possess the attributes necessary to perform the job as well as her male counterpart might—as a result, she receives lower performance evaluations and is less likely to be promoted or invested in. Moreover, because male-dominated industries, such as engineering, are often higher status and more lucrative than female-dominated occupations such as those in childcare, this

assumption and subsequent behavior greatly contributes to women's disadvantaged position in the workplace.

On-the-job performance is another important factor to consider for females who occupy male-typed roles. As mentioned, these females are often given lower performance ratings simply for their perceived lack of fit in the role. Research suggests that this effect can be stronger or weaker depending on overt displays and clear indicators of low, high, or ambiguous performance. For example, when performance is ambiguous, females are rated as less competent than males, which supports the prior assertion that females are perceived as naturally less suited for jobs of this type (Heilman et al., 2004). Again, this is quite problematic as perceptions of competence are strongly predictive of an employee's likelihood to be promoted, hired, and trained or invested in (Cuddy et al., 2004).

Interestingly, when females in male-typed jobs show *undeniably* high performance, they gain perceived competence (Heilman et al., 2004). Because perceived competence is predictive of positive workplace outcomes, it seems plausible that highly successful women in male-typed jobs would be perceived favorably in comparison to other workers. Yet, that is not the case. Rather, highly successful females in male-typed jobs are subjected to a tradeoff. Specifically, though they gain perceived competence, they are often viewed as unlikeable (i.e., a "competence—likeability tradeoff"). In this case, they are *still* evaluated less favorably than men, a finding that underscores the significance of competence *and* likeability when it comes to performance evaluations (Phelan, Moss-Racusin,

& Rudman, 2008). It appears that, for working women, observers shift their evaluative criteria to place importance on the criterion that is perceived to be lacking (Heilman et al., 2004). In sum, depending on how visible their level of performance is, women are perceived to be lacking in competence or in likeability and in either case, appraisals of their performance suffer.

This shifting of evaluative criteria also occurs when others assess the behavior of women. For example, when a woman remains stereotype-consistent and displays communal behaviors in the workplace, she may be viewed as warm and likeable but lacking in competence. However, when she exhibits stereotype-inconsistent behavior (i.e., agentic behavior typically ascribed to males), she is viewed as competent but lacking in social skills. Women in the latter scenario are often subjected to “backlash effects” as they are labeled as cold, hostile, or bitchy (i.e., “she is competent, but cold”) for conforming to gender-inconsistent behaviors. This is especially evident when women display agentic behaviors and are successful in male-typed occupations (Phelan et al., 2008). These findings provide further confirmation for the criticality of perceptions of both likeability and competence in performance evaluations (Phelan et al., 2008). Furthermore, they are consistent with prior research suggesting that affect (i.e., how we feel toward someone; likeability) may bias our evaluations of even the most successful performers (Feldman, 1981; Ilgen & Feldman, 1983).

In summary, it appears to be acceptable for women to be successful as long as they are successful in the “right” jobs (i.e., female-typed jobs). It is when they occupy positions in male-typed jobs that they are especially likely to be

perceived as either less competent (when performance is ambiguous or unclear) or less likable (when performance is undeniably high). Because both competence and likeability matter when it comes to judgments of promotability, hireability, and reward allocation, women are penalized in male-typed organizations regardless of the set of factors they are being judged on (Heilman et al., 2004).

Empirical Evidence of the “Motherhood Penalty”

Several empirical articles have provided evidence for the existence of a penalty for motherhood. Perceptions of warmth, competence, commitment, likeability and dependability as well as contextual factors (i.e., male- or female-typed organizations, actual or perceived performance) are all relevant in predicting how women will be evaluated in the workplace. Overall, one thing seems clear—there is mounting evidence to suggest that, despite women’s advancement in the workplace as a group, mothers are still at quite a disadvantage when it comes to their careers. In fact, as will be discussed later, working mothers are perceived less favorably than fathers and childless workers both in their home and work roles.

Though the motherhood penalty implies having children, its effects seem to emerge well before childbirth, at the time a woman expresses a desire to have children or when she becomes visibly pregnant. For example, Halpert, Wilson, and Hickman (1993) found that, all other things being equal, a female’s work performance was rated more negatively when she appeared to be pregnant than when she did not. Perhaps even more telling, female employees report experiencing negative reactions from their colleagues when they become pregnant

(Halpert & Burg, 1997). Moreover, though others perceive pregnant and non-pregnant job applicants as “equally qualified” to carry out job responsibilities, they rate the pregnant candidate as less committed and are significantly less likely to hire her (Cunningham & Macan, 2007).

Similar penalties for pregnant women have been illustrated in field studies. For example, Hebl et al. (2007) manipulated impending motherhood by having confederate women wear pregnancy prostheses when applying for jobs in the mall and found that store managers displayed significantly greater verbal hostility toward apparently pregnant applicants than non-pregnant applicants. This was presumed to stem from the stereotypical beliefs that pregnant women will be less competent, less committed, and more inflexible than non-pregnant women. In support of that assertion, it appears that the interpersonal discrimination (i.e., hostile attitudes and discriminatory behaviors) often directed at pregnant applicants can be reduced when hiring managers receive counterstereotypic information about these pregnancy-related stereotypes (Morgan, Walker, Hebl, & King, 2013). Taken together, these findings support the claim that stereotypes about mothers are activated and result in penalties in workplace outcomes even *before* a woman has a child to care for.

The stereotype content model (Fiske et al., 2002) suggests that perceptions of warmth and competence play a central role in the motherhood penalty. For example, when asked to rate hypothetical consultants who differ only on gender (male, female) and parenthood status (not a parent, parent), females with children were rated as consistently warmer, yet less competent, than fathers or their

childless male or female counterparts. Conversely, male consultants were rated as similarly competent regardless of their status as a parent. Notably, perceived competence predicted workplace outcomes such as likelihood to hire or promote the consultants. Thus, females with children suffered from their loss of perceived competence, as it rendered them less likely to be recommended for hiring, promotion, or training whereas males were left unaffected. In fact, males received a *bonus* for parenthood as they retained their perceived competence while also gaining warmth upon being identified as fathers (Cuddy et al., 2004). In other words, women trade their competence for warmth when they become mothers, while men do not make a trade, but rather gain a positive feature when they become fathers. Though parents are viewed as less agentic and less committed to employment than nonparents overall, fathers are often held to more lenient standards than mothers and childless men suggesting that working mothers may have to work harder to be viewed similarly to working fathers (Fuegan et al., 2004).

This discrimination can also be explained by the perceived tension between preconceptions regarding the “ideal mother” and “ideal worker” roles (Correll, Bernard, & Paik, 2007). To examine the mechanism through which this discrimination occurs, participants rated applicants on perceived competence, commitment, hireability, and promotability. Consistent with predictions stemming from the SCM, women with children were judged as significantly less competent, less committed, and less promotable than women without children. Further, mothers were recommended for hiring only 47% of the time whereas identical

male applicants with children were recommended about 73% of the time (Correll et al., 2007). Lastly, competence and commitment ratings partially mediated the negative effect of motherhood status on workplace evaluations; thus, mothers were rated as less hireable and less suitable for promotion in part because they were perceived as less competent and committed.

To determine whether these findings were valid outside of an experimentally manipulated study, resumes (differing on sex and parent status) were mailed to a variety of organizations and the numbers of callbacks received by each hypothetical employee were tallied. Compared to women who showed evidence of being mothers, women *without* children were nearly twice as likely to be called back (indicating a penalty for motherhood). Men, on the other hand, received no penalty for parenthood; in fact, men with children were *more likely* to be called back than childless men, which further supports the existence of a fatherhood advantage. Interestingly, childless women were called back more than childless men—again, suggesting that gender discrimination in hiring may be case of “mothers versus others” rather than “women versus men” (Bernard et al., 2008; Correll et al., 2007).

Heilman and Okimoto (2008) provided further support in a series of studies examining how the role of motherhood biases performance ratings and other workplace evaluations using both student ratings and those from working people. In each study, job incumbents were said to be applying for promotions to male-typed positions. They found bias against mothers in terms of competence expectations such that female applicants with children were expected to be less

competent than female applicants without children. Participants also chose to remove the female applicant with children from the process more often than all other applicants. Finally, mothers with children were expected to be the least committed to the job while fathers with children were expected to be the most committed. This study helps to mitigate any suggestions that the motherhood penalty is simply an artifact of undergraduate subject pools, and does not, in fact, occur in the “real world.” Participants’ decisions and ratings biased mothers regardless of whether they were coming from students or employees in a real organization.

The “Bad Parent” Assumption

Stereotyped-based assumptions not only bias perceptions of competence and commitment in the workplace, they also play a role in the evaluation of individuals in other roles (e.g., at home). The notion that good mothers are “always there” for their children whereas good employees are “always there” for their jobs creates an issue that is nearly impossible to resolve (Kobrynowicz & Biernat, 1997; Williams, 2001). In fact, it leads to the perception that women cannot simultaneously be good employees *and* good mothers, a belief underlying the idea that mothers cannot “have it all,” but instead, must “choose between a career and a family.” Mothers who disregard this assumption and occupy both roles are not only perceived as less effective employees, but they are also perceived as less effective parents (Okimoto & Heilman, 2012).

Furthermore, despite great strides on the part of egalitarianism, mothers but not fathers, are still expected to be the primary caregiver in the home. Thus,

women with children are viewed as less committed to the job (Ridgeway & Correll, 2004) and less committed to family obligations as well (Bridges & Etaugh, 2004; Fuegan et al., 2004). This leaves mothers in a doubly disadvantaged position.

Work Devotion versus Family Devotion

Devotion orientation is a construct that subsumes the concepts of work and family devotion. “Devotion” is the preferred expression as both work and family devotion are schemata (e.g., broadly shared, cultural models) that help shape work and family structures and are thought to evoke strong emotion (Blair-Loy, 2003). Work devotion is a cultural ideology that “defines the career as a *calling or vocation* that deserves single-minded allegiance and gives meaning and purpose to life” (Blair-Loy, 2003, pp. 2). It is a long-standing American ideal tied to the belief that if individuals *devote* themselves to work, putting forth great effort and numerous hours, they can succeed. To connect to previously mentioned theory and beliefs, work-devoted employees may be seen as “ideal workers”, willing to do whatever it takes to be efficacious workers.

Research suggests that those who exemplify work devotion are more likely to be hired and provided with resources and opportunities within organizations (Aranda & Glick, 2013). However, the work devotion schema is problematic for working mothers because career-oriented women who spend time attending to family needs may be perceived as violating the expectations assumed to be fulfilled by the “ideal worker.” Moreover, this schema involves the

expectation of complete devotion to work, at the expense of time with families and children.

The family devotion schema, on the other hand, characterizes family and childcare as the primary focus in ones' life (Blair-Loy, 2003). Family-devoted individuals may be viewed as “ideal mothers” or “ideal caregivers”, those willing to sacrifice a successful career to give all of themselves to their families. The disparate and conflicting cultural norms and expectations regarding “family devotion” and “work devotion” are quite apparent. Further, they create work-family conflict that has been tied to several negative workplace outcomes (e.g., decreased job and life satisfaction, turnover, increased absenteeism; Hill et al., 2001) as well as individual-level outcomes (e.g., decreased levels of self-esteem, increased overload; Marks & MacDermid, 1996). Gender, in particular, is an important category to consider when discussing devotion orientation as, historically, men were expected to express devotion to work, whereas women were expected to express devotion to family (Blair-Loy, 2003). Families often subscribed to this traditional structure and violations of such often resulted in penalties.

In the modern working world, 31% of married couples with children are headed by a stay-at-home mother and a working father, whereas 59% are dual-earner families with both parents working outside of the home (Bureau of Labor Statistics, 2013b). In today's economic landscape, this is often necessary for families to survive financially. Moreover, there are nearly 4,000 families headed by a single mother, 67% of whom are employed outside of the home (Bureau of

Labor Statistics, 2013b). These statistics clearly illustrate that it is no longer a viable expectation for women to be solely devoted to their family while men are completely devoted to work; in fact, this belief has not been viable for quite some time. Yet, women who violate the traditional devotion schema continue to be faced with the perception that they are lacking both as employees and as parents (Bernard & Correll, 2010). Working mothers, especially, are stereotypically viewed as unable to meet the demands of work devotion. Those who challenge this belief and become successful working mothers often make a trade as they are perceived as less devoted employees and less effective parents (Okimoto & Heilman, 2012).

Minimizing or Mitigating the Motherhood Penalty

Working mothers who express devotion to work may be able to minimize or mitigate the motherhood penalty. To explore whether an employed mother's overtly expressed devotion to work would affect the existence of the motherhood penalty, business students rated how likely they would be to hire or allocate resources and opportunities to a married parent of two children applying for a job in a male-dominated industry (i.e., industrial engineering). The hypothetical job applicants differed on gender (male, female) and their self-reported devotion orientation (to work or to family). Family-devoted mothers were given lower ratings than all candidates, leaving them less likely to be hired and given resources and opportunities. However, work-devoted mothers were rated just as highly as work-devoted fathers. Thus, when mothers expressed a strong devotion to work, they were not penalized for motherhood (Aranda & Glick, 2013).

At first glance, these findings may seem encouraging; perhaps expressing devotion to work would be a simple way for mothers to avoid being penalized in the workplace. However, in the study above, work-devoted parents stated that they were “aware that having a passion for [work] involves sacrifice.” The key word here is “sacrifice” and thus, deserves further elaboration. In the current society, women and men are equally likely to express that having a successful career *and* being a good parent are *simultaneously* “one of the most important things in their life” (Pew Research Center, 2012).

Although expressing a willingness to make sacrifices to be completely devoted to work may potentially “equal” the playing field for working mothers and fathers, it can also exacerbate other issues in the workplace. For example, it may perpetuate the “flexibility stigma”—negative perceptions associated with the use of employer-sponsored benefits (e.g., flextime, job sharing, and telecommuting) that are meant to *help* employees achieve a balance between their work and non-work demands (Cascio, 2000). This stigma arises because the use of these flexible-working arrangements appears to conflict with the assumption that to be successful, employees should be completely devoted to work (Blair-Loy & Wharton, 2002; Williams, Blair-Loy, & Berdahl, 2013). In fact, despite the appeal of such programs, they are infrequently used, perhaps due to the fear of being negatively perceived. This fear is not unfounded—in fact, the use of flex policies often leads to wage penalties (Blair-Loy & Wharton, 2004), decreased performance evaluations (Wharton, Chivers, & Blair-Loy, 2008), and fewer promotions (Cohen & Single, 2001). Additionally, those who use them are often

expected to be less committed and less successful (Almerm, Cohen, & Single, 2004). Thus, working parents may be even more hesitant to utilize flexible working arrangements after they overtly express strong devotion to work above all else as they may fear being called out for contradictory messages and actions (e.g., “I am willing to make sacrifices for work, yet I must use flextime to make it to my child’s soccer game”). This will strengthen the belief that successful employees must *choose* between work and family. Thus, it is important to continue exploring ways in which the work devotion schema can be overridden and perhaps replaced with the belief that successful employees can be devoted both to work and their families (i.e., work-family devotion).

Rationale

Research evidence implicates perceptions of competence, warmth, commitment, dependability, and likeability as important factors in the motherhood penalty. In particular, women, when compared to men, are viewed as less competent, less committed, and less dependable in the workplace when they show evidence of being parents. This is due, in part, to the stereotypical assumption that mothers will be more devoted to their families whereas fathers will be more devoted to work (i.e., family devotion and work devotion schemas). These gendered perceptions are outdated and the majority of young men and women today express that they consider success both in work and in family to be equally important (Pew Research Center, 2012).

Preliminary research suggests that mothers who express devotion to work do not receive the same penalties as those who express devotion to family

(Aranda & Glick, 2013). However, conveying devotion to work over family may come at a cost. More specifically, it may continue to impede the development of family-friendly workplaces as expressing work devotion may lead to a continued hesitance to take advantage of family-friendly policies out of fear of being stigmatized as less than “ideal.” Moreover, both mothers and fathers ought to be able to express a devotion to both family and work without being penalized as work-family balance is often positively related to perceived advancement in the workplace (King, Botsford, & Huffman, 2009). Mothers should not have to express a stronger devotion to work in order to be viewed as similarly competent and capable as fathers and other childless employees. Thus, the proposed research intends to explore perceptions of mothers and fathers who express devotion equally to work and family. This research is important as it attempts to replicate and extend the literature regarding the motherhood penalty.

Statement of Hypotheses

Hypothesis I: There is a main effect of motherhood status such that women who are mothers are viewed as warmer (**HIa**), more likeable (**HIb**), less competent (**HIc**), less committed to work (**HI d**), less committed to family (**HIe**), less dependable (**HI f**), less effective parents (**HIg**), less promotable (**HIh**), and less likely to be trained (**HIi**).

Hypothesis II: There is a main effect of devotion orientation such that when compared to females who express family-devotion, female targets who express work-devotion are viewed as less warm (**IIa**) and less likeable (**IIb**), but more competent (**IIc**), more committed to work (**II d**), more dependable (**IIe**),

more likely to be promoted (**HIIIf**), and trained (**IIIfg**). Work-devoted female targets are also perceived as less effective parents (**IIIfh**) and less committed to family (**IIIfi**).

Hypothesis III: There is an interaction between motherhood status and devotion orientation such that compared to family-devoted mothers, mothers who express devotion to work are liked less (**IIIfa**), but more likely to be promoted (**IIIfb**) and trained (**IIIfc**). In addition, they are perceived as more competent (**IIIfd**), more committed to work (**IIIfe**), more dependable (**IIIff**) and less committed to family (**IIIfg**), less effective as parents (**IIIfh**), and less warm (**IIIfi**).

Research Question: Compared to women who express work or family devotion, how are women who express devotion to *both* family and work perceived in terms of warmth, competence, work commitment, family commitment, dependability, parental effectiveness, hireability, promotability, and trainability?

Method

This study was completed online using Amazon's Mechanical Turk (MTurk; www.mturk.com). MTurk was developed by Amazon in 2005 to help large companies distribute small online tasks to workers. Requesters (i.e., employers) upload Human Intelligence Tasks (HITs) to a marketplace where workers (i.e., employees) can accept and complete the tasks for monetary compensation. The data collected from workers is unique in that it can be composed of a more demographically diverse sample than standard Internet samples and typical American college samples (Barger, Behrend, Sharek, & Sinar, 2011). Additionally, researchers can collect large amounts of reliable data

extremely quickly and inexpensively (Buhrmester, Kwang, & Gosling, 2011). Furthermore, Paolacci, Chandler, and Ipeirotis (2010) were able to replicate three well-established decision-making experiments using data from MTurk, effectively demonstrating that MTurk is a viable option for data collection.

While the compensation amounts for workers on MTurk has a large range, it is suggested that approximately seventy-five cents per thirty minutes is reasonable (Barger et al., 2011). On average, it took participants 15 minutes to complete this research. Thus, workers accepted the study (i.e., in the form of a HIT), completed the study online, and received \$0.50 in return for their participation.

Research Participants. A total of 700 individuals participated in this study. Twenty-six participants stopped the study after answering a few items resulting in missing data. In addition, thirty-one participants failed the manipulation checks. Thus, these participants were excluded from reported demographics and subsequent analysis, resulting in a total of 643 participants with viable data. Table 1 presents categorical descriptive statistics and Table 2 reports on continuous descriptive variables after removing manipulation fails.

Table 1 Summary of participant demographic data

Variable	N	% Reporting
Sex	674	
Female	276	41.2
Male	394	58.8
Relationship status	670	
Married	224	33.4
Not married, in a committed relationship	211	31.5
Not married, not in a committed relationship	235	35.1

Ethnicity	670	
Caucasian	552	82.4
Black or African-American	56	8.4
Asian	58	8.7
American Indian or Alaska Native	1	0.1
Native Hawaiian/Other Pacific Islander	3	0.4
Hispanic Latino	670	
Hispanic Latino	52	7.8
Not Hispanic or Latino	618	92.2
Parent Status	670	
Have children	233	34.8
Do not have children	437	65.2
Education	670	
Less than high school diploma	7	1.0
High school diploma/GED	68	10.1
Some college	207	30.9
Associate's degree	58	8.7
Bachelor's degree	253	37.8
Master's degree	54	8.1
Above a master's degree	23	3.4
Employment status	670	
Full-time	371	55.4
Part-time	169	25.2
Unemployed	112	16.7
Retired	18	2.7
Supervisory experience	670	
Yes	365	54.5
No	305	45.5
Experience making employment decisions	670	
Yes	309	46.1
No	305	53.9
Political Party	670	
Democrat	286	42.7
Republican	80	11.9
Independent	214	31.9
Other	35	5.2
None	55	8.2

Design. This study used a 3 (devotion orientation: work-devoted, family-devoted, devoted to both work and family) by 2 (motherhood status: mother, not a mother)

between subjects design. This resulted in six hypothetical profiles of female employees differing only on the two independent variables. The profiles were as follows: (1) work-devoted childless female, (2) family-devoted childless female, (3) childless female devoted to work and family, (4) work-devoted mother, (5) family-devoted mother, and (6) mother devoted to work and family. All study participants were randomly assigned to one of the six possible conditions and thus, read about and responded to only one of the above profiles (which were manipulated within the background materials and information provided).

Procedure. After logging onto Amazon Mechanical Turk (MTurk), participants saw the study listed with the title: “Opinion of Employees Applying for a Promotion.” This listing also included a short description that gave the participant an overview of the study as well as the tasks they would be asked to complete (see Appendix A). After clicking on the study listing, participants were redirected to a landing page that included: (1) a link for the survey in Qualtrics (and online survey hosting website) and (2) an empty text box which participants were instructed to come back to and enter a confirmation number after the survey was completed (see Appendix B).

If participants were interested in completing the study, they were asked to open the Qualtrics link in a new tab. Doing so enabled them to return to the MTurk page to enter their confirmation code upon survey completion. Upon clicking on the survey link, participants were randomly assigned to one of the six aforementioned conditions differing only on the two independent variables (i.e., motherhood status and devotion orientation).

In the main portion of the study, participants were first directed to an information sheet that described the study's purpose (see Appendix C). Participants were told they were to evaluate an employee applying for a promotion within an organization. They were also informed that no identifying information would be collected (i.e., names, email addresses, IP addresses, etc.). If a participant decided to opt out of the survey at this point, they indicated this by clicking on an "I do not wish to continue" button that redirected them to the end of the survey (a landing page simply stating "thank you for your interest in our study"). Participants who did not wish to continue did not receive compensation.

For participants who consented to take part in the study, they clicked on a "next" button that took them to an instructional page, which provided a more detailed overview of the study including instructions and a list of the required tasks (see Appendix D). Specifically, participants were asked to act as a supervisor who will be making promotion decisions for a position reporting to them. They were given a list of five current employees who applied to be promoted to the role. To make the hypothetical female employee's position in a male-dominated industry salient, a list of applicants was provided in which all names signal male applicants other than the target employee, whose name is Susan Smith. Participants were asked to carefully review all subsequent documents provided so as to make the most informed decisions regarding the employee they were tasked with rating.

After reading the instructional page, participants clicked through to a page that relisted the employees applying for promotion and were told that they were

tasked with rating Susan Smith. (see Appendix E). Next, they saw a description of the company they work for (see Appendix F). The organization is called *First Source Energy and Utilities Company* and is portrayed as a company that values committed, motivated, and collaborative employees. A utilities company was selected because they are largely male-dominated. This was important because women in male-dominated organizations can be viewed as particularly incongruent with the type of job (i.e., a Construction Coordinator) and thus, are more susceptible to being evaluated based on gender stereotypes about what *is* and *is not* appropriate (Heilman et al., 2004). Based on last year's statistics, women make up only 23% of jobs in the utilities industry; thus, it is considered one of the most male-dominated industries in the US (Bureau of Labor Statistics, 2013c).

Participants also viewed a job description for the position being applied for (see Appendix G). The position was that of a "Construction Coordinator" as, similar to the male-typed organization, this is a position highly dominated by males (Bureau of Labor Statistics, 2013a). It is also a standard position filled in Utilities companies (determined by researching job opportunities in a local utilities company).

Next, participants read some employee background information, including a brief statement about her work history (see Appendix H). This information was the same for all conditions—Susan was portrayed as a Utility Crew Lead who had worked at the company for six years and had attended various training programs to help improve her skills. Participants were then randomly assigned to one of six

possible paragraphs that included comments written by Susan's prior supervisor. The primary manipulations (devotion orientation and motherhood status) were embedded in these comments (see Appendix I). In particular, the paragraphs were identical across conditions with the exception of some key changes (see Appendix Ia). In the two conditions, Susan was said to be respected for her *devotion to her work*, always being willing to work long hours and put in overtime. Her supervisor recounted a situation in which there was a crisis at the company and Susan immediately called in and was on-the-scene to deal with the issues. This information was included to signal a strong work-devotion. A key difference between the two work-devotion conditions was the mention of children—in the non-mother condition, Susan's husband was referred to, whereas in the mother condition, Susan's husband *and* children were mentioned. In the next two conditions, Susan was described as being respected for her *devotion to her family*, always willing to make adjustments at work to get home to her family at night. This information indicated a *strong family devotion*. Referring to the same crisis as in the aforementioned work-devoted conditions, Susan's supervisor explained that Susan immediately contacted her family to let them know she was safe, asking other co-workers to take the lead so she doesn't have to sacrifice family time when crises emerge outside of normal working hours. Again, to signal motherhood status, Susan's husband *only* or husband *and* children were referred to. In the final two conditions, Susan's supervisor indicated she is respected for her *devotion to both work and family*. In discussing the crisis, her supervisor asserts she called her family to let them know she was safe and also called into

work to see how she could help; he also remarked that when it comes to handling crisis situations, Susan asks that she and her peers take turns being the main contact (i.e., the lead supervisor) called out to the scene so they can all decrease their time spent away from home. These last two conditions were set up to describe Susan as a woman who is *devoted to work and family* and who does her best to balance in both domains so she can be viewed as both a committed and dependable family-woman and employee. The motherhood status manipulation remained identical to the four conditions described above.

After reading the supervisor comments, participants were asked to respond to six questions designed to assess the level of attention they paid to the information provided (see Appendix J). These questions served as checks to make certain participants noted the critical manipulations prior to rating the employee on several dimensions.

Next, participants filled out a warmth/competence measure which asked them to evaluate how likely the employee was to exhibit a set of 20 traits on a scale of 1 (*not at all likely*) to 7 (*very likely*) (see Appendix K; adapted from Fiske, Cuddy, Glick, & Xu, 2002). Twelve of the items were fillers, which served to distract the participants from the importance of the four warmth-related items (good-natured, sincere, warm, and trustworthy) and the four competence-related items (capable, efficient, organized, and skillful). This measure allowed us to assess how participants perceived the hypothetical employee based on dimensions of warmth and competence. Prior research has demonstrated that competence ratings, in particular, can predict discriminatory behavior such that as competence

ratings decrease, likelihood to hire, promote, and train decreases as well (Cuddy, Fiske, & Glick, 2004). Thus, this measure aided in determining whether perceptions of warmth and competence were associated with intentions to discriminate in employment decisions based on motherhood status and devotion orientation.

Subsequently, participants rated how likely they were to promote Susan (i.e., “As her supervisor, how likely would you be to recommend Susan for promotion?”) or to recommend her to participate in further training to improve her skills (i.e., “How likely would you be to recommend your employer provide funding for Susan to participate in a training program to improve her skills?”) (see Appendix L). Both questions used a seven-point Likert-type scale ranging from 1 (*not at all likely*) to 7 (*very likely*). In addition, two questions adapted from Heilman and Okimoto (2008) assessed Susan’s anticipated job commitment (see Appendix M). Specifically, participants were asked “If promoted, how likely is it that Susan will be committed to the company?” and “If promoted, how likely is it that Susan will be willing to make sacrifices for the job?”

Work dependability was assessed using two questions (adapted from Heilman & Okimoto, 2008), which asked participants to respond on a scale of 1 (*not at all likely*) to 7 (*very likely*) (see Appendix N). The first question asked “If promoted, how likely is it that Susan will take a lot of sick and/or personal days” and the second asked, “If promoted, how likely is it that Susan will arrive for work late or leave work early?”

To measure how likeable the employee was, participants were asked to “Please rate the employee in terms of her likeability” (on a scale of *1 = not at all likeable* to *7 = very likeable*) and to indicate how likely they would be to “describe Susan as someone they would like to get to know better” (on scale of *1 = not at all* to *7 = very much*). In addition, participants responded to a question asking them to “Please estimate the percentage of people that would feel comfortable seeking help from this individual” on a sliding scale ranging from 0 to 100% (adapted from Heilman et al., 2004; see Appendix O).

In addition to answering questions regarding work-related variables, participants were asked to evaluate the employee at home or in a parental role. First, the employee’s commitment to family was assessed using two items, “How committed do you think Susan is to her family” and “How likely is it that Susan makes her family a top priority?” Both questions used a seven-point Likert-type scale ranging from *1 (not at all)* to *7 (very)* (see Appendix P). In addition, one item (i.e., “How effective do you think Susan would be as a mother (either currently or in the future?)”) assessed the extent to which participants felt the employee would be an effective mother. Participants responded on a seven-point scale (*1 = not at all effective; 7 = very effective*; see Appendix Q). The commitment to family and parental effectiveness items were adopted from Heilman and Okimoto (2008). Lastly, participants were asked to answer a series of demographic questions (see Appendix R).

Once the demographic items were completed, participants were directed to a thank you screen that provided a debriefing and a code number (see Appendix

S). Participants were instructed to go back and enter the code number into Amazon Mechanical Turk to inform the researchers that the experiment had been completed.

Once the code was viewed on the Amazon Mechanical Turk requester page by the researcher, compensation was provided via direct deposit through Amazon's online payment system. The payment system was set up so that the account was funded with only enough money to gather the 700 participants required for data analysis. This ensured that the study was not visible in the HIT list after a sufficient number of participants had completed the research.

Results

Means, standard deviations, and correlations of all study measures and continuous variables are displayed in Table 2. Items that required reversed coding were recoded prior to analysis and an alpha level of .05 was used for all statistical tests. Items corresponding to the same scale were grouped together and their item ratings were averaged to result in overall scale scores for each participant. Additionally, principal component analyses were run on all scales to confirm their expected factor structure. The warmth-competence scale yielded two 4-item dimensions: warmth (good-natured, sincere, warm, and trustworthy; $\alpha = .83$) and competence (capable, efficient, organized, and skillful; $\alpha = .90$), which were strongly correlated ($r = .74$). The two anticipated job commitment questions were averaged to yield an overall "anticipated job commitment" rating ($\alpha = .92$). Averaging the two questions assessing work dependability resulted in an overall rating of "work dependability" ($\alpha = .88$). Two likeability questions yielded a

single rating of the employee's likeability ($\alpha = .80$) and lastly, two family-commitment items were averaged to yield a rating of "family commitment" ($\alpha = .90$).

Manipulation Check. To test the male-dominated industry manipulation (i.e., Utilities), participants responded to a multiple-choice question with five response options. 95.8% ($n = 646$) correctly identified "Utilities" as the industry in which the employee works. In another multiple-choice question, participants were asked to identify which employee they were asked to rate. 98.5% ($n = 664$) of the 700 participants accurately identified "Susan". Participants who did not correctly respond to both of these questions were removed from the dataset, resulting in a dataset of $n = 643$ for subsequent analyses.

To test the motherhood status manipulation, crosstabs were conducted to look for differences in the manipulation check question between the parent and non-parent conditions. The manipulation check failed as the majority of participants ($n = 488, 76\%$) indicated that the hypothetical employee had children although only 48.1% were in the condition in which children were mentioned. Further analysis showed that this was potentially a result of the devotion orientation condition as the majority of participants in the family-devoted and work-and-family-devoted conditions indicated that the employee in the non-parent condition (i.e., in which children were not mentioned in the supervisor's comments) had children ($n = 174, 85.7\%$). However, in the work-devoted condition, the majority of participants ($n = 201, 92.6\%$) responded correctly to the question "Does the employee have children?" These results are not necessarily

surprising and will be elaborated on in the discussion section. Because such a sizable portion of the participants failed this manipulation check, it was decided that no participants would be removed for analyses.

To test the devotion orientation manipulation, two one-way ANOVAs were conducted to look for differences in the manipulation scale ratings across the devotion-orientation conditions. When asked “How devoted is Susan to her work?” on a scale 1 (*not at all*) to 7 (*very*), participants responded significantly differently depending upon condition, $F(2, 640) = 221.88, p < .01$. Planned contrasts revealed that all three groups had significantly different means ($p < .01$). Specifically, participants in the work-devoted condition rated Susan the highest ($M = 6.68$), those in the work-and-family-devoted condition were in the middle ($M = 6.37$), and those in the family-devoted condition indicated she was the least devoted to work ($M = 5.04$). Participants also responded differently when asked, “How devoted is Susan to her family” on the same scale, $F(2, 640) = 197.06, p < .01$. Again, planned contrasts revealed that all three groups had significantly different means ($p < .01$). In particular, those in the family-devoted condition rated Susan the highest ($M = 6.73$); those in the work-and-family devoted condition were in the middle ($M = 6.16$), and those in the work-devoted condition rated her lowest ($M = 5.04$). Thus, results were as expected and the devotion orientation manipulation was successful.

Testing of Hypotheses

Hypotheses I, II, and III made predictions about parent status (parent, non-parent) and two levels of devotion orientation (i.e., work-devoted, family-

devoted). The research question focused on investigating a third level of devotion orientation, work-and-family devotion and its relation to parent status. Due to moderate correlations among the dependent variables (see Table 2), all hypotheses were tested using a 3 (devotion orientation) x 2 (motherhood status) multivariate analysis of variance (MANOVA) on a combination of all dependent variables (i.e., warmth, competence, hireability, promotability, likelihood to fund for training, work and family commitment, dependability, likeability, and parental effectiveness). Using MANOVA helped control inflation of Type I error that can occur when multiple ANOVAs are used. Condition sample size, score means, and standards deviations for all dependent variables are displayed in Table 2.

MANOVA is robust to different cell sample sizes. Since there were considerably more cases than dependent variables in each cell and the sample sizes were nearly equal (e.g., the largest difference was 115 versus 103), all tests were run without accounting for different sample sizes. One-tailed tests with an alpha level of .05 were used to determine significance for all hypotheses.

Hypothesis I. It was expected that there would be a significant main effect for motherhood status such that mothers would be viewed as warmer, more likeable, less competent, less committed to work and family, less dependable, less effective parents, and less promotable and less likely to be trained. Hypothesis I was not supported. In particular, there was not a significant main effect of parent status on warmth ($F(1, 635) = .26, p = .61, \text{partial } \eta^2 = .00$), likeability ($F(1, 635) = .17, p = .69, \text{partial } \eta^2 = .00$), competence ($F(1, 635) = .60, p = .44, \text{partial } \eta^2 = .00$), commitment to work ($F(1, 635) = .60, p = .44, \text{partial } \eta^2 = .00$),

dependability ($F(1, 635) = .62, p = .43, \text{partial } \eta^2 = .00$), promotability ($F(1, 635) = .50, p = .48, \text{partial } \eta^2 = .00$), or likelihood to be given funding for training ($F(1, 635) = .11, p = .74, \text{partial } \eta^2 = .00$). The effect of parent status on family commitment ($F(1, 635) = 3.30, p = .07$) and parental effectiveness were approaching significance ($F(1, 635) = 3.29, p = .07$). However, both effect sizes were small ($\text{partial } \eta^2 = .01$).

Hypothesis II and Research Question. It was expected that there would be a main effect of devotion orientation such that women who express work-devotion are viewed as less warm, less likeable, and less committed to family or effective as parents when compared to their family-devoted counterparts. In addition, it was expected that work-devoted women would be viewed as more competent, committed to work, dependable, promotable, and more likely to be given funding more training than those who express family devotion. Though there were not any specific hypotheses predicted, the family-and-work devotion condition was also examined.

Hypothesis II was partially supported, as there was a significant main effect of devotion orientation on all dependent variables, however, the relationship was not always in the predicted direction. More specifically, there was a significant main effect of devotion orientation on promotability ($F(1, 635) = 173.06, p < .01, \text{partial } \eta^2 = .35$), likelihood to be given funding for training ($F(1, 635) = 51.74, p < .01, \text{partial } \eta^2 = .14$), competence ($F(1, 635) = 54.76, p < .01, \text{partial } \eta^2 = .15$), warmth ($F(1, 635) = 8.96, p < .01, \text{partial } \eta^2 = .03$), job commitment ($F(1, 635) = 302.94, p < .01, \text{partial } \eta^2 = .49$), work dependability

($F(1, 635) = 198.36, p < .01, \text{partial } \eta^2 = .39$), likeability ($F(1, 635) = 14.90, p < .01, \text{partial } \eta^2 = .05$), family commitment ($F(1, 635) = 288.71, p < .01, \text{partial } \eta^2 = .48$), and parental effectiveness ($F(1, 635) = 117.69, p < .01, \text{partial } \eta^2 = .27$).

Table 2. Means, Standard Deviations, and Correlations of Continuous Variables and Study Measures

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1 Participant age	657	32.33	10.95	–											
2 Participant job experience ^a	668	12.30	10.55	.91**	–										
3 Participant work hrs/wk ^b	663	29.44	16.37	.02	.08*	–									
4 Promotability	674	5.73	1.45	.09*	.08*	.04	–								
5 Funding for training	674	5.67	1.42	.10*	.08*	.08*	.57**	–							
6 Likeability	674	5.41	1.12	.09*	.06	.03	.50**	.37**	–	(.80)					
7 Family commitment	672	5.75	1.34	.14**	.08*	-.01	-.25**	-.10**	.17**	–					
8 Competence	674	5.90	.95	.11**	.07	.05	.68**	.46**	.62**	.05	–	(.90)			
9 Warmth	674	5.72	.89	.04	.00	.02	.47**	.36**	.70**	.26**	.74**	–	(.83)		
10 Job commitment	674	5.70	1.60	.09*	.10*	.05	.87**	.57**	.46**	-.34**	.63**	.40**	–	(.92)	
11 Work dependability	674	5.06	1.72	.07	.10*	.01	.64**	.39**	.31**	-.40**	.48**	.27**	.72**	–	(.88)
12 Parental effectiveness	672	5.72	1.30	.15**	.10*	-.02	-.07	.01	.34**	.79**	.19**	.36**	-.16**	-.26**	–

Note: Coefficient alphas are given in parentheses along the diagonal unless not applicable.

^aParticipants reported job experience by responding to an open-ended question: “How many years of job experience do you have?”

^bParticipants reported the number of hours worked per week by responding to an open-ended question: “On average, how many hours do you work per week?”

** $p < .01$

Multiple comparisons were run to determine where significant differences exist among the three devotion orientation groups (see Table 3 for means and standard deviations by condition). Results of the Bonferroni comparisons suggest that family-devoted employees, in particular, are viewed as significantly less competent ($M = 5.52$, $SD = .71$) and less likeable ($M = 5.16$, $SD = 1.23$) and are less likely to be promoted ($M = 4.62$, $SD = 1.48$) or given funding for training ($M = 4.99$, $SD = 1.50$) compared to their work-devoted or work-and-family-devoted counterparts. All $ps < .01$.

When it comes to job commitment, work dependability, family commitment, and parental effectiveness, all three groups are perceived as significantly different ($p < .01$). Specifically, work-devoted women are viewed as the most committed ($M = 6.68$, $SD = .67$) and dependable ($M = 6.06$, $SD = 1.12$) employees, yet the least committed to their families ($M = 4.60$, $SD = 1.23$) and least effective as mothers ($M = 4.89$, $SD = 1.33$). Family-devoted women are viewed as the least committed ($M = 4.24$, $SD = 1.63$) and dependable ($M = 3.63$, $SD = 1.66$) as employees, but the most committed to their families ($M = 6.75$, $SD = .55$) and the most effective as parents ($M = 6.40$, $SD = .82$).

Women who express devotion to *both* work and family are perceived relatively positively in both their work and family roles as they are viewed as significantly warmer than the other two groups. Further, both-devoted women are viewed as significantly more committed and dependable than their family-devoted counterparts as well as more committed to family and effective as parents when compared to their work-devoted counterparts.

Hypothesis III. It was predicted that there would be an interaction between parent status and devotion orientation such that work-devoted mothers would be viewed as less likeable but more likely to be promoted and given funding for training than their family-devoted counterparts. Further, work-devoted mothers were expected to be viewed as more competent, more committed to work, and more dependable, yet less committed to family, less effective as parents and less warm than mothers who express family-devotion. Parts of HIII were supported. In particular, there was a significant interaction between parent status and devotion orientation for family commitment ($F(1, 635) = 4.01, p < .05$, partial $\eta^2 = .01$) and effectiveness as a mother ($F(1, 635) = 3.15, p < .05$, partial $\eta^2 = .01$). However, there was not a significant interaction between motherhood status and devotion orientation for promotability ($F(1, 435) = .93, p = .34$), likelihood to be given funding for training ($F(1, 435) = .16, p = .70$), competence ($F(1, 435) = 1.23, p = .27$), warmth ($F(1, 435) = 1.05, p = .31$), job commitment ($F(1, 435) = .00, p = .99$), dependability ($F(1, 435) = .17, p = .68$), or likeability ($F(1, 435) = .04, p = .084$).

Multiple comparisons for the two significant three-way interactions revealed several patterns (see table 4 for means and standards deviations for family commitment and parental effectiveness scores by condition). In particular, work-devoted women with children are viewed as significantly ($p < .05$) more committed to family ($M = 4.81, SD = 1.30$) than work-devoted without children ($M = 4.39, SD = 1.11$) ($p < .05$). However, for family-devoted women and work- and family devoted are viewed similarly regardless of their status as a mother,

family-devoted women with children ($M = 6.72, SD = .59$) and without children ($M = 6.79, SD = .51$); work-and-family devoted women with children ($M = 6.03, SD = .97$) or without children ($M = 5.98, SD = .96$). The same pattern emerged for a second significant interaction between parent status and devotion orientation on parental effectiveness (see Table 4 for mean family commitment scores).

Table 3. *Dependent Variable Means and Standard Deviations by Condition*

Condition	<i>n</i>	Promotion	Funding for Training	Family Commitment	Competence	Warmth	Job Commitment	Work Dependability	Likeability	Parental Effectiveness
		<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Devotion										
Work	217	6.47 (.75)	6.10 (1.15)	4.60 (1.23)**	6.20 (.71)	5.77 (.75)*	6.68 (.67)**	6.06 (1.12)**	5.50 (1.06)**	4.89 (1.33)**
Family	219	4.62 (1.48)**	4.99 (1.50)**	6.75 (.55)**	5.52 (.95)**	5.62 (.89)*	4.24 (1.63)**	3.63 (1.66)**	5.16 (1.23)**	6.40 (.82)**
Both	207	6.29 (.91)	6.07 (1.19)	6.01 (.96)**	6.20 (.64)	5.94 (.73)*	6.38 (.81)**	5.62 (1.30)**	5.70 (.91)*	6.04 (1.00)**
Parent Status										
No kids	312	5.83 (1.36)	5.74 (1.42)	5.69 (1.35)	6.00 (.81)	5.79 (.78)	5.81 (1.56)	5.16 (1.67)	5.47 (1.07)	5.68 (1.33)
Kids	331	5.74 (1.46)	5.69 (1.36)	5.87 (1.26)	5.94 (.88)	5.76 (.83)	5.69 (1.59)	5.03 (1.76)	5.43 (1.05)	5.87 (1.17)

Note. * Mean difference is significant at $p < .05$; ** Mean difference is significant at $p < .01$

Table 4. Three-way interaction Means and Standard Deviations by Condition

Condition	Family Commitment		Parental Effectiveness	
	<i>n</i>	<i>M (SD)</i>	<i>M (SD)</i>	
Family-devoted, Non-mother	103	6.79 (.51)	6.41 (.77)	
Family-devoted, Mother	115	6.72 (.59)	6.40 (.86)	
Both-devoted, Non-mother	99	5.98 (.96)	6.03 (.98)	
Both-devoted, Mother	107	6.03 (.97)	6.05 (1.02)	
Work-devoted, Non-mother	109	4.39 (1.11) **	4.67 (1.42) **	
Work-devoted, Mother	108	4.81 (1.30) **	5.12 (1.21) **	

Note. * Mean difference is significant $p < .05$

** Mean difference is significant at $p < .01$

Figure 1. Average Family Commitment scores for Non-mothers and Mothers across Devotion Orientation Conditions

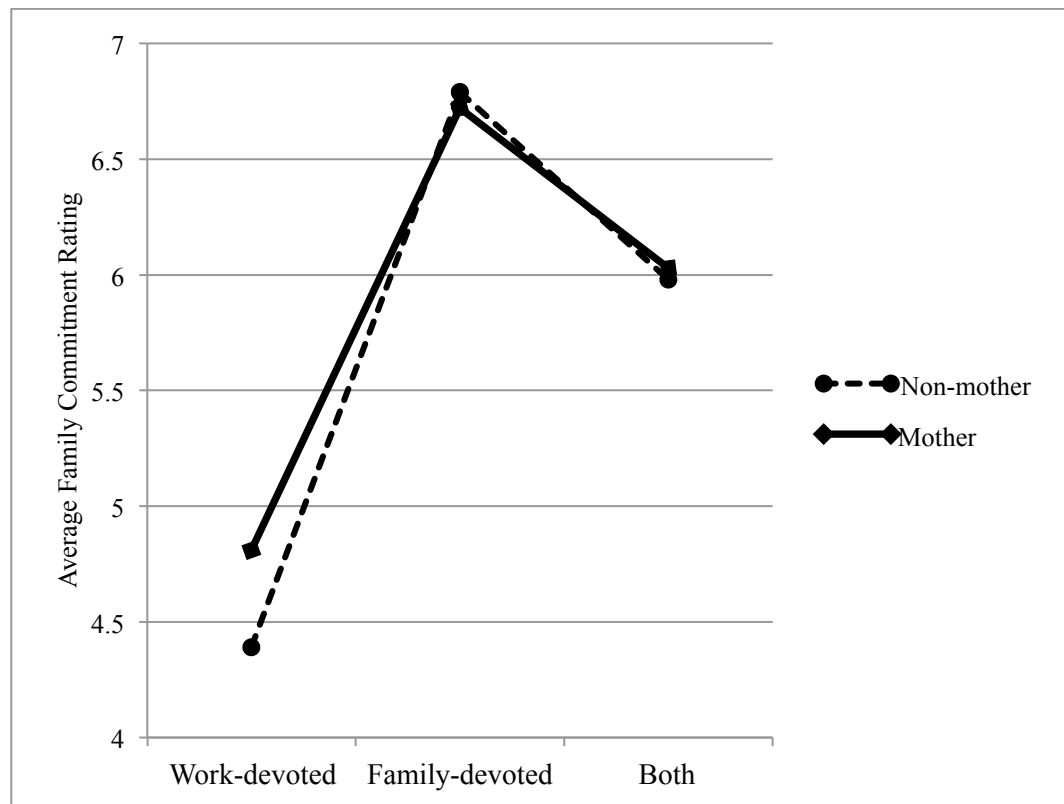
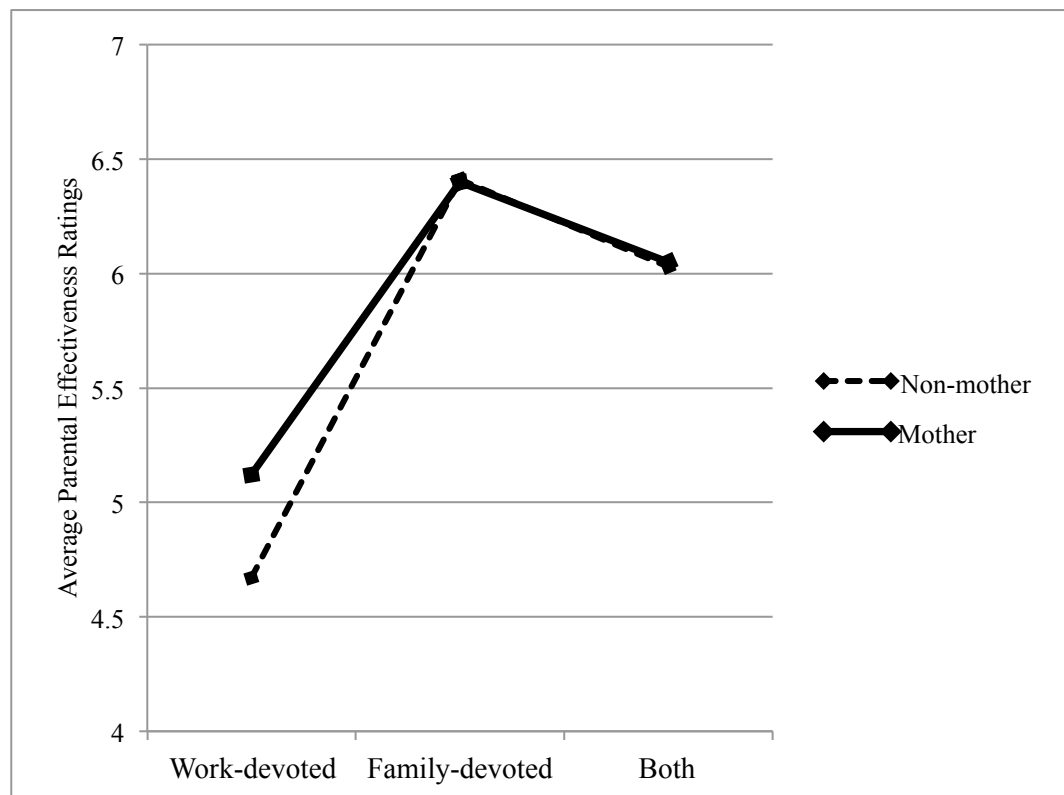


Figure 2. Average Parental Effectiveness Scores for Non-mothers and Mothers across Devotion Orientation Conditions



Discussion

Utilizing a social role theory and stereotype content model perspective, this study investigated the proposed theory that women with children receive penalties in the workplace compared to their childless female counterparts. Another construct, devotion orientation, was explored, with the expectation that women who express devotion to work will be viewed more favorably in terms of work-related variables (e.g., promotability, dependability, commitment) and less favorably in terms of family-related variables (e.g., parental effectiveness, family commitment) than their family-devoted counterparts. Lastly, an additional and unexplored variable, family-and-work devotion was examined to determine how women who express devotion to *both* work and family would be viewed related to their work- and family-devoted counterparts.

First and foremost, the results offered little evidence for the existence of a motherhood penalty based on parent status alone. Although a decent body of literature suggests that women with children are penalized when compared to women without children (e.g., Cuddy et al., 2004), this research did not find evidence to support this. The lack of support for the motherhood penalty is a finding worth celebrating. In the last year or so, instances of discrimination against pregnant employees and mothers have seemed to appear more frequently in the popular press—thus, it is possible that individuals who are consumers of this information are being more thoughtful when rating performance or making employment decisions. For example, they may choose to focus on job-related behaviors and performance over cues that are unrelated to the job itself. It is also

possible that this is due to the sample used. Participants from mTurk were more likely to have children of their own, and to have relevant work experience (e.g., supervising others, making employment decisions) compared to the standard US college sample. Thus, these individuals may rely less on stereotypic information and more on the performance data provided when making their decisions.

Second, an interesting finding emerged during the early analysis stages, while conducting manipulation checks. Specifically, although only 50.8% of the participants were in a condition in which they read about an employee with children and the other 48.2% read about a childless employee, 75% of participants indicated that the hypothetical employee was a parent. Upon further analysis, it appeared that participants who were in the family-devotion condition *without* kids and those in the family-and-work devotion condition *without* kids were assumed to have children. This suggests that when family is mentioned in the context of a woman's background, it leads to the assumption that the individual must have children. This explanation seems to fit with prior theory (e.g., social role theory; Eagly, 1984) as it appears that people tend to categorize women into traditional caregiver roles (i.e., motherhood) when family aspects are made salient (Heilman & Okimoto, 2008). It is unclear whether this same connection would be made for men who mention family, thus this is an area worth additional exploration.

A primary purpose of this research was to determine how women who express devotion to work *and* family are perceived both in the workplace and in family-related roles. Prior research found that the motherhood penalty is mitigated when women express devotion to work over family, concluding that women

should overtly show their commitment in the workplace to be considered for opportunities and advancement (Aranda & Glick, 2013). This is somewhat erroneous as it ignores the fact that women (and men) may strive to have both a family and a work life. The results of the present study uncovered another, more promising, avenue to consider. In fact, findings suggest that “having it all” may not be so far-fetched. When devotion orientation is considered as a categorical construct that includes only work-devoted or family-devoted women, both groups receive penalties in certain roles. Specifically, results indicated that work-devoted women suffer penalties at home (i.e., by being viewed as less committed to family and less effective as mothers) whereas family-devoted women suffer penalties as work (i.e., by being viewed as less committed, less dependable, less promotable, etc.). These findings are supported by cultural ideals suggesting that to be effective, women must choose to devote their energy and resources to work or family (Blair-Loy, 2001). Further, by going against these expectations and attempting to occupy both roles, they make a trade-off in the role that is deemed of lower importance based on their decisions (Blair-Loy, 2003; Blair-Loy & Wharton, 2004). However, the present results found that women who explicitly express devotion to work and family rather than one or the other were not subjected to such severe penalties. Rather, they were viewed as reasonably committed and effective in both roles compared to their work- and family-devoted counterparts. Though they are still not viewed quite as positively in the workplace as work-devoted women, they do not receive the devastatingly low ratings that their family-devoted counterparts receive.

One explanation for these findings is that women who express devotion to both their families and work may be viewed as more authentic or relatable. Further, because these women mention their desire to balance their time in both roles, others' do not have to make inferences or assumptions regarding their performance in unmentioned areas. Therefore, women may be afforded some control over how their co-workers/supervisors perceive them if they mention their dual aspirations to be highly performing, dedicated employees as well as committed to their families. Likewise, mothers can share their love and dedication for their job while being upfront about their desires to balance this by being a good mother to their children. Though these are preliminary results and more research is necessary, these results are very promising.

There were also some noteworthy findings in regards to predictions regarding likeability and warmth. Contrary to expectations based on the stereotype content model (Fiske, Cuddy, Glick, & Xu, 2002), work-devoted women were not viewed as colder or less likeable than their family-devoted counterparts. In fact, women who expressed devotion to work were viewed as more likeable and more competent than their family-devoted counterparts. In fact, family-devoted women were doubly disadvantaged as they were viewed as the least likeable and the least competent among the three devotion orientation groups. Interestingly, women who expressed devotion to both work and family were viewed as the warmest among the three groups and were still seen as comparatively competent to their work-devoted counterparts. Taken together, it seems that women who express a healthy balance between their work and home

lives do not make a warmth-competence trade-off as prior research has found (Cuddy et al., 2004); instead, they gain perceived warmth and likeability and maintain their competence when expressing a desire to be devoted to both roles.

Limitations and Implications for Future Research

This study, like most empirical research, did have certain limitations. These limitations as well as other implications for future research are detailed in the following paragraphs.

First, there is the possibility of mono-method bias as all questions were answered on a similar seven-point Likert scale. In addition, a number of the dependent measures utilized only two or three items to create a composite score. However, examination of Cronbach's alpha suggests that these measures have strong internal consistency (all $\alpha > .80$) and as such, this should not affect the study results. Still, in future research, it would be useful to use more than one measure for various constructs to demonstrate construct validity. In particular, it would be beneficial to incorporate additional measures that are not self-report. Self-report measures are commonly used as they are fairly easy to collect and are often the most feasible way to assess various constructs. However, participants often respond in a way that makes them look desirable. In future studies, constructs, such as organizational commitment, could also be measured using supervisory or co-worker ratings (which are often found to be more accurate than self-reports; Borman 1991). Further, a construct such as work dependability could be measured objectively by utilizing absenteeism or tardiness records kept by an organization.

Another limitation of this study is the fact that it only examined others' perceptions of women in terms of their motherhood status and devotion orientation. Further research should add an additional independent variable, gender, to the design to see how men are perceived in comparison to women. This would allow the motherhood penalty to be explored with more rigor as it is often compared to the fatherhood advantage rather than being compared to other women without children (Aranda & Glick, 2013; Cuddy et al., 2004). Based on prior research, one might expect family-devoted men, compared to family-devoted women, to be viewed more favorably in the workplace as this family-devotion may signal the need for the male to provide for his family. Thus, others may believe the family-devoted man will be more committed to his job, under the assumption that he needs to provide for his family. Consequently, others may be more likely to recommend him for training and promotion. Further, the inferences that arise when a woman says she is "devoted to family" may be widely disparate from the set of expectations associated with a man saying the same thing. In particular, employers may assume a family-devoted man will work harder and longer to provide for a family he is highly devoted to. On the other hand, a family-devoted woman may be considered less committed and dependable as an employee because her family-devoted message is taken as signaling her preference to be at home taking care of her children versus at work. This is an area that is ripe for further exploration and it would help to clarify the existence of effects due to devotion orientation.

A second area worth investigating relates to the finding that while work-devoted women receive the most favorable workplace outcomes, they still make a trade-off as their work-devotion leads others to believe they are less likely to succeed in family-related roles. What consequences might emerge if a work-devoted woman who is viewed as highly competent, committed, and capable of advancement gets pregnant or decides to start a family? It would seem that devotion-orientation effects might be exacerbated in this situation, as others would assume the woman's performance would decline as she becomes more oriented toward her family.

Finally, although the sample for this study included a high percentage of individuals with supervisory or managerial experience, future research should extend the preliminary findings of this study to an applied setting with actual managers. It would be difficult to imagine a supervisor giving equally performing employees widely disparate promotability ratings based on expression of family versus work commitment. Furthermore, a supervisor may not make the assumption that women who mention their families have children as they are likely to know more about their employees' home lives.

Conclusion

Overall, the findings of this study offer compelling, albeit preliminary, evidence that can help working mothers take control over how they are perceived when occupying dual work and home roles. Specifically, women can mitigate others' expectations regarding their need to choose work or family by making their goals clear in *both* contexts. Making their desires clear decreases the likelihood that they will be judged based on stereotypical expectations. In effect,

this gives working mothers the chance to influence how others perceive their work and family-based commitment and competence rather than leaving it up to others' potentially inaccurate judgments and assumptions.

To illustrate, consider this scenario: you observe a co-worker (who you know has young children) staying afterhours to get work done in the office. Prior to this observation, she told you she is completely devoted to work and is willing to make sacrifices to be an outstanding employee. It logically follows that you may assume she is less committed or effective as a parent. Now, consider the same scenario with one alteration. In this case, she previously shared that she is devoted to both her family and her work and that if she spends one late night in the office per week, she can free up additional weekend and morning hours to spend with her kids. Now, you do not need to make assumptions regarding your co-worker's commitment and effectiveness in her dual roles. She explicitly told you her desires and though she may face challenges in trying to balance her roles, you are not likely to base your expectations of her on stereotypes. The results of this study would lend support to this type of scenario.

Ultimately, it comes down to this: whether you are devoted to work, family, or both, it is important to make your aspirations known to take control over how others perceive you and ensure that others do not make inaccurate assumptions regarding your wants and needs in various contexts.

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Appendix A. Description and Overview of Study

Title: Examining Opinions of an Employee Applying for a Promotion

Description: This is a research study that consists of several questionnaires. To complete this task, you will begin by reading information about a hypothetical employee applying for a promotion. Next, you will answer several questions regarding your opinion of this employee. Finally, you will provide some demographic information about yourself.

Keywords: survey, questionnaire, opinion, academic research, research

Appendix B. Qualtrics Link and Confirmation Number

IMPORTANT: Please open the survey link in a **new tab or a new** browser as you will need to return to this page to enter the confirmation code after you have completed the survey. Do not click “submit” until **AFTER** you have completed the survey and entered the confirmation code. This will inform us that you have completed the study and will allow us to provide compensation for your participation. Thank you.

Link: *QUALTRICS LINK HERE*

Provide the survey code here:

Appendix C. Informed Consent

INFORMATION SHEET FOR PARTICIPATION IN RESEARCH STUDY

Examining Opinions of an Employee Applying for a Promotion

Principal Investigator: Stefanie Mockler, B.S., Graduate Student

Institution: DePaul University, USA

Faculty Advisor: Jane Halpert, PhD, Psychology Department, College of Science and Health, DePaul University

We are conducting a research study because we are trying to learn more about how opinions of employees affect their likelihood to be promoted within an organization. We are asking you to be in the research because you are registered as a worker on Amazon's Mechanical Turk who resides in the United States. If you agree to be in this study, you will be asked to evaluate an employee who is applying for a promotion after reading information about the employee, the organization they work for, and the position applied for. In addition, you will be asked to respond to several questions and surveys. The surveys will include questions about the employee's traits, abilities on the job (e.g., performance, commitment) and abilities at home (e.g., effectiveness). We will also collect some personal information about you such as age, sex, race, relationship status, etc. All information will be collected online.

This study will take about 15 minutes of your time. Your information will be kept confidential.

Your participation is voluntary, which means you can choose not to participate. You can withdraw your participation at any time prior to submitting your survey, however, if you exit the survey prior to the end then you will not receive compensation. If you change your mind later while answering the survey, you may simply exit the survey. Once you submit your responses, we will be unable to remove your data later from the study because all data is anonymous and we will not know which data belongs to you.

You will be given \$0.50 for your participation in the research. After completion of the survey, you will receive a confirmation number. Then, you must go back to the Amazon Mechanical Turk page where you clicked on the survey link and enter this number. This will allow the researcher to determine whether you completed the survey and subsequently to provide compensation. Your amazon profile information will not be linked to this number in any way; it simply provides confirmation that you completed the study. You must be age 18 or older

to be in this study. This study is not approved for the enrollment of people under the age of 18.

Since you are enrolling in this research study through the Amazon Mechanical Turk (MTurk) site, we need to let you know that information gathered through Amazon MTurk is not completely anonymous. Any work performed on Amazon MTurk can potentially be linked to information about you on your Amazon public profile page, depending on the settings you have for your Amazon profile. Any linking of data by MTurk to your ID is outside of the control of the researcher for this study. We will not be accessing any personally identifying information about you that you may have put on your Amazon public profile page. We will store your MTurk worker ID separately from the other information you provide to us. Amazon Mechanical Turk has privacy policies of its own outlined for you in Amazon's privacy agreement. If you have concerns about how your information will be used by Amazon, you should consult them directly.

If you have questions, concerns, or complaints about this study or you want to get additional information or provide input about this research, please contact the researcher, Stefanie Mockler at 219-508-6353 or smockler@depaul.edu.

If you have questions about your rights as a research subject you may contact Susan Loess-Perez, DePaul University's Director of Research Compliance, in the Office of Research Services at 312-362-7593 or by email at sloesspe@depaul.edu. You may also contact DePaul's Office of Research Services if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.

You may print this information for your records.

Appendix D. Initial Instructions

Our organization First Star Energy and Utilities is evaluating employees for a promotion to a Construction Coordinator role. Two positions need to be filled and five current employees (i.e., Bill Tipple, Mark Hanover, Susan Smith, Tom Bernard, and Alex Finley) have applied to be promoted into the role.

You are a supervisor here at First Star Energy and Utilities. The 2 positions to be filled will be reporting directly to you. It is your job to help evaluate one of the above employees to determine who should be promoted.

You will be provided with the following information to help inform your ratings and decisions:

- Information about the company you work for
- A brief job description for the Construction Coordinator position
- The employee's background information and work history
- Informal comment from the employee's current supervisor

You will be asked to:

- Review the information provided; **please read carefully** as your evaluations should be based on all materials presented.
- Rate the employee on several traits.
- Answer several questions regarding this employee in various roles.
- **Choose wisely**—each of your answers is significant to our study. You will not be able to return to previous pages once you have moved forward, so take your time and read carefully. Your input is very important!

Let's get started!

Appendix E. List of Applicants and Target Employee

Again, 5 current employees have applied for promotion to the Construction Coordinator role.

The employees are:

- Bill Tipple
- Mark Hanover
- Susan Smith
- Tom Bernard
- Alex Finley

Today, we ask that you read some information about the company, job, and employee and then evaluate SUSAN SMITH on several factors for promotion to the role.

Appendix F. Utilities Company Description

You work for First Source Energy and Utilities, a company in the public utility industry. They are a leader in the highly competitive energy industry and their goal is to have a team of employees who are very committed and motivated.

They do their best to create a positive and collaborative work environment, allowing all employees to share ideas and help improve processes. They also strive to operate in an environmentally friendly manner.

Recently, First Star Energy's management team recognized a need to offer more flexible working arrangements to allow employees to reach their desired state of work-life balance. Their goal is to help their staff thrive in a fast-paced work environment by offering benefits that will help meet employee needs.

Appendix G. Construction Coordinator Job Description

Key Responsibilities

- Coordinate and guide activities associated with construction of natural gas pipelines to ensure safe, reliable service to customers
- Oversee various groups (e.g., customers, contractors, welders) to make certain construction projects and other maintenance activities are completed efficiently and on-time
- Install or replace pipelines in various facilities as needed
- Interact with crew leaders to ensure performance adheres to established policies and procedures
- Prepare daily progress reports (e.g., invoices)

Additional Information

- Must have earned a high school diploma or equivalent
- Must be physically able to negotiate a variety of terrain and building structures and able to work in all types of weather conditions
- May be required to periodically work past the normal 8-hour day (at applicable overtime rate) to accommodate construction schedule and needs

Appendix H. Employee Background Information

Instructions: You are tasked with evaluating Susan Smith for the Construction Coordinator position.

Please read the following information carefully as it will guide your answers to subsequent questions.

Background and Work History

Susan is a Utility Crew Lead who has worked at First Star Energy and Utilities for the past 6 years. After graduating High School, she joined the organization as a Meter Reader. After 3 years in that role, she moved into her current position in which she performs general operations work, helps inspect and maintain all equipment used in construction projects, oversees her crew's performance and ensures safety codes met and understood.

Throughout Susan's time with First Star, she has attended various training programs. For example, she attended a performance management workshop to improve her ability to lead her crew. She believes she is ready to move up into the Construction Coordinator role and she has attempted to position herself to do so. However, she recognizes that the role is competitive and that several of her co-workers may have what it takes to move into the role as well.

Appendix I. Conditions by Independent Variable

Susan is a valued employee in our company. Others respect her strong devotion to **[her family, her work, her work and her family]**.

1. Family-oriented—When faced with unexpected projects, Susan is **always willing to make adjustments so she can get home to her family at night.**

Work-oriented—When faced with unexpected projects, Susan is **always willing to work long hours and put in overtime.**

Both—When faced with unexpected projects, Susan is **always willing to bring work home to complete after time with her family.**

2. Family-oriented—In this profession, we are often called away from home to deal with unexpected issues. When this happens, Susan often asks that her co-workers **take the lead so she does not have to sacrifice time with her family.**

Work-oriented—In this profession, we are often called away from home to deal with unexpected issues. When this happens, Susan often asks that her co-workers **call her first so she can be on the scene to deal with issues immediately.**

Both—In this profession, we are often called away from home to deal with unexpected issues. When this happens, Susan often asks that her co-workers **take turns with her so she can balance her time between work and family.**

3. Family-oriented—In crisis situations, Susan tends to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so the first thing she did was call her **family to let them know she was safe.**

Work-oriented— In crisis situations, Susan tends to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so the first thing she did was **call her supervisor to see how she could help.**

Both—In crisis situations, Susan tends to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so the first thing she did was **call her family to let them know she was safe and her supervisor to see how she could help.**

Motherhood Status Manipulation:

Work-devoted/Non-mother—She reports that her husband understands this.

Work/devoted/Mother—She reports that her husband and children understand this.

Family-devoted/Non-mother—She reports that her husband appreciates this.

Family-devoted/Mother—She reports that her husband and children appreciate this.

Both/Non-mother—She reports that her husband appreciates and understands this.

Both/Mother—She reports that her husband and children appreciate and understand this.

Appendix Ia. Supervisory Comments by Condition

Condition 1—Work-Devoted/Non-mother: Susan is a valued employee in our company. Others respect her strong devotion to **her work**. When faced with unexpected projects, she is **always willing to work long hours and put in overtime**. She reports that **her husband** understands this. In crisis situations, she can be counted on to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so Susan immediately called her **supervisor to see how she could help**. In this profession, we are often called away from home to deal with unanticipated issues. When this happens, Susan often asks that her co-workers **call her first so she can be on the scene to deal with issues immediately**.

Condition 2—Work-Devoted/Mother: Susan is a valued employee in our company. Others respect her strong devotion to **her work**. When faced with unexpected projects, she is **always willing to work long hours and put in overtime**. She reports that **her husband and children** understand this. In crisis situations, she can be counted on to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so Susan immediately called her **supervisor to see how she could help**. In this profession, we are often called away from home to deal with unanticipated issues. When this happens, Susan often asks that her co-workers **call her first so she can be on the scene to deal with issues immediately**.

Condition 3—Family-Devoted/Non-mother: Susan is a valued employee in our company. Others respect her strong devotion to **her family**. When faced with unexpected projects, Susan is **always willing to make adjustments so she can get home to her family at night**. She reports that her **husband appreciates this**. In crisis situations, she can be counted on to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so Susan immediately called her **family to them know she was safe**. In this profession, we are often called away from home to deal with unanticipated issues. When this happens, she often asks that her co-workers **take the lead so she does not have to sacrifice time with her family**.

Condition 4—Family-Devoted/Mother: Susan is a valued employee in our company. Others respect her strong devotion to **her family**. When faced with

unexpected projects, she is **always willing to make adjustments so she can get home to her family at night**. She reports that her **husband and children appreciate this**. In crisis situations, she can be counted on to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so Susan immediately called her **family to let them know she was safe**. In this profession, we are often called away from home to deal with unanticipated issues. When this happens, she often asks that her co-workers **take the lead so she does not have to sacrifice time with her family**.

Condition 5—Work & Family-Devoted/Non-mother: Susan is a valued employee in our company. Others respect her strong devotion to **her work and her family**. When faced with unexpected projects, Susan is always willing **to bring work home to complete after spending time with her family**. She reports that **her husband appreciates and understands this**. In crisis situations, she can be counted on to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so Susan immediately called her **family to let them know she was safe and her supervisor to see how she could help**. In this profession, we are often called away from home to deal with unanticipated issues. When this happens, she often asks that she and her co-workers **take turns taking the lead so they can all balance time between their work and family**.

Condition 6—Work & Family-Devoted/Mother: Susan is a valued employee in our company. Others respect her strong devotion to **her work and her family**. When faced with unexpected projects, Susan is always willing **to bring work home to complete after time with her family**. She reports that **her husband and children appreciate and understand this**. In crisis situations, she can be counted on to remain calm and cool-headed. For example, we recently had a company-wide shutdown due to a gas leak in our main offices. It was all over the local news, so Susan immediately called her **family to let them know she was safe and her supervisor to see how she could help**. In this profession, we are often called away from home to deal with unanticipated issues. When this happens, she often asks that her co-workers **take turns taking the lead so they can all balance time between their work and family**.

Appendix J. Manipulation Check Questions

Instructions: the level of attention paid to the employee information can have an effect on the evaluation itself.

We want to be sure that you were able to read and understand the information about the employee so you can give the best evaluation possible. These questions ask about details from the information you read. Please respond:

1. What industry does the employee currently work in? (Options: nursing, utilities, teaching, sales)
2. Does the employee have children? (Options: yes/no)
3. What was the employee's name? (Options: Bob, Susan, Mike, Kate, Stan)

Please rate the employee on the following scales using a 7-point scale (1 = not at all, 7 = extremely).

1. How devoted is Susan to her work?
2. How devoted is Susan to her family?
3. How successful would you say this employee is in her current role?

1 (not at all)2.....3.....4.....5.....6.....7 (very)

Appendix K. Warmth-Competence Scale

Instructions: Please rate this employee on a scale of 1-7 (1 = not at all, 7 = extremely) on each of the following 20 traits.

1. How **capable** is this employee?
2. How **sincere** is this employee?
3. How **determined** is this employee?
4. How **tolerant** is this employee?
5. How **efficient** is this employee?
6. How **good-natured** is this employee?
7. How **practical** is this employee?
8. How **organized** is this employee?
9. How **respectful** is this employee?
10. How **skillful** is this employee?
11. How **warm** is this employee?
12. How **tactful** is this employee?
13. How **intelligent** is this employee?
14. How **trustworthy** is this employee?
15. How **content** is this employee?
16. How **funny** is this employee?
17. How **fair** is this employee?
18. How **faithful** is this employee?
19. How **secure** is this employee?
20. How **proud** is this employee?

A scale will accompany all traits as follows:

1 (not at all)2.....3.....4.....5.....6.....7
(extremely)

4 of 20 measured **competence-related traits**: capable, efficient, organized, and skillful

4 of 20 measured **warmth-related traits**: good-natured, sincere, warm, and trustworthy

12 of 20 measured **filler traits**: tolerant, determined, practical, faithful, respectful, fair, tactful, content, secure, funny, intelligent, and proud

Appendix L. Promotability/Funding for Training Items

Instructions: Please rate the employee on a scale of 1-7 (1 = not at all, 7 = very) on each of the following questions.

- 1.) As her supervisor, how likely would you be to recommend Susan for promotion?
- 2.) How likely would you be to recommend that your employer provide funding for Susan to participate in a training program to further her skills?

A scale will accompany each question as follows:

1 (not at all likely)2.....3.....4.....5.....6.....7 (very likely)

Appendix M. Anticipated Job Commitment

Instructions: Please rate the employee on a scale of 1-7 (1 = not at all likely, 7 = very likely) on each of the following questions.

- 1.) If promoted, how likely is it that Susan will be very committed to the company? (Higher scores would indicate MORE commitment)
- 2.) If promoted, how likely is it that Susan will be willing to make sacrifices for the job? (Higher scores would indicated MORE commitment)

A scale will accompany each question as follows:

1 (not at all likely)2.....3.....4.....5.....6.....7 (very likely)

Appendix N. Anticipated Work Dependability

Instructions: Please rate the employee on a scale of 1-7 (1 = not at all likely, 7 = very likely) on each of the following questions.

- 1.) If promoted, how likely is it that Susan will take a lot of sick and/or personal days?*
- 2.) If promoted, how likely is it that Susan will arrive for work late or leave work early?*

A scale will accompany each question as follows:

1 (not at all)2.....3.....4.....5.....6.....7 (very)

**Both questions were reverse scored so that higher scores indicate greater dependability to be consistent with other measures.*

Appendix O. Likeability

Instructions: Please rate the employee in terms of their likeability (i.e., how likeable are they) and then answer the following 3 questions.

- 1.) Please rate the employee in terms of her likeability (i.e., how likeable is she).
- 2.) Would you describe Susan as someone you would like to get to know better?
(1 = not at
- 3.) Please indicate the percentage of people you feel would be comfortable asking Susan for help.

Question 1 used the following scale:

**1 (not at all likeable)2.....3.....4.....5.....6.....7
(very likeable)**

Question 2 used the following scale:

**1 (not at all)2.....3.....4.....5.....6.....7 (very
much)**

Question 3 was answered using a sliding scale that ranged from 0-100%.

Appendix P. Family Commitment

Instructions: Please rate the employee on the following question using a 7-point scale (1 = not at all, 7 = very).

- 1.) How committed do you think Susan is to her family?
- 2.) How likely is it that Susan makes her family a top priority?

1 (not at all)2.....3.....4.....5.....6.....7 (very)

Appendix Q. Anticipated Parental Effectiveness

Instructions: Please rate the employee on the following questions using a 7-point scale (1 = ineffective, 7 = very effective).

1.) How effective would this person be as a mother (either currently or in the future)?

1 (not at all effective)2.....3.....4.....5.....6.....7
(very effective)

Appendix R. Demographic Questions

1. **Please indicate your age.** (Open-answer)
2. **Please indicate your sex.** (Male/Female)
3. **Please indicate your race/ethnicity.** (1. White 2. Black or African American 3. American Indian or Alaska Native 4. Asian 5. Native Hawaiian and other Pacific Islander)
4. **Please indicate if you are:** 1. Hispanic or Latino 2. Not Hispanic or Latino.
5. **Please indicate your current relationship status.** (1. Married 2. Not Married, in a Committed Relationship 3. Not Married, Not in a Committed Relationship)
6. **Are you a parent?** (Yes/No)
7. **Please indicate the highest level of education you have completed** (1. Less than High School Diploma 2. High School Diploma/GED 3. Some college 4. Associate's Degree 5. Bachelor's Degree 6. Master's Degree 7. Above a Master's Degree)
8. **What is your employment status?** (1. Full-time 2. Part-time 3. Unemployed 4. Retired)
9. **Do you currently or have you ever worked in a supervisory position (i.e., responsible for overseeing other employees)?** (Yes/No)
10. **Have you played a role in making employment decisions (e.g., hiring, promoting, terminating employees)?** (Yes/No)
11. **How many years of job experience do you have?** (Open-answer)
12. **On average, how many hours do you work per week?** (Open-answer)
13. **What is your political party affiliation?**

Democrat/Republican/Independent/Other/None

Appendix S. Debriefing

Thank you for participating in our research. In this study, you were asked to evaluate an employee applying for a promotion based on information about the company, the position, and the employee's background information/work history. The purpose was to examine the effects of devotion orientation (work-devoted, family-devoted, or both) and motherhood status (non-mother, mother) on perceptions of employees. Our goal is to explore how those perceptions affect job-related outcomes (i.e., likelihood to be promoted and trained).

As stated earlier, all of your responses will be absolutely confidential. In return, we ask that you honor our confidentiality as well—please do not tell anyone about the details of the study. If other participants are aware of the details of this study, it will bias their responses, and we will not be drawing conclusions about actual perceptions.

We are very grateful for your participation in this research. If you have any questions or concerns, or if you'd like to receive a copy of the results once the study is complete, you may contact the primary researcher, Stefanie Mockler, at smockler@depaul.edu. If you have questions about your rights as a research subject, you may contact Susan Loess-Perez, DePaul University's Director of Research Protections at 312-362-7593 or by email at sloesspe@depaul.edu.

If you would like to learn more about this topic, the following article is a good place to begin.

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), pp. 701-718.

Thank you for your participation!

IMPORTANT: please go back to the Amazon Mechanical Turk page where you clicked on the survey link and enter the following survey code number (XXXX) so that we know you have completed the study.