

How does the division of labor contribute to gender stereotypes and discrimination?

Keana Richards¹

¹University of Pennsylvania

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Abstract

People hold a generally accurate stereotype that women fulfill more household responsibilities, while men spend relatively more time at work (Bianchi et al., 2012; Poulin-Dubois et al., 2002). On top of the division of labor at home, there is occupational segregation in the labor force (Bertrand & Hallock, 2001; Blau & Kahn, 2017; Goldin, 2014; Jarman et al., 2012; Levanon & Grusky, 2016). Observations of the division of labor lead people to infer women are dispositionally more communal and less agentic relative to men (Eagly & Steffen, 1984; Hoffman & Hurst, 1990; Koenig & Eagly, 2014). In this paper, I argue that the division of labor by gender both at home and work contributes to discrimination (i.e., less recognition, with greater penalties) against women in the workplace through its effects on descriptive, prescriptive, and proscriptive stereotypes about agency and communion. Discrimination, in turn, contributes to persistent gender differences in labor market outcomes.

Introduction

Despite incredible progress towards gender equality (e.g., women’s suffrage, a reversal of the gender education gap, women’s increased participation in the labor market) (Bianchi et al., 2012; Blau et al., 2010, 2013, 2014; Goldin, 2006, 2014; Goldin et al., 2006; Sayer, 2005), gender gaps in the labor market persist (Bertrand & Hallock, 2001; Blau et al., 2006a, 2014; Blau & Kahn, 2006, 2017; Goldin, 2014; Hegewisch & Hartmann, 2014; Levanon & Grusky, 2016). One of the most highly cited and tangible metrics for gender disparities in the labor market is the gender wage gap (Bertrand & Hallock, 2001; Blau & Kahn, 2000, 2006, 2017; Goldin, 2014; Hegewisch & Hartmann, 2014; McGee et al., 2015; Nyhus & Pons, 2012). Recent unadjusted estimates suggest women earn only 79.3% of what men earn (Blau & Kahn, 2017).

In the past, classic human capital variables (e.g., gender gaps in education and work experience) explained a large proportion of the gender wage gap (e.g., 27% in 1980). As women's education and labor force experience has increased over time (Goldin, 2006), the impact of these variables on the gender wage gap has decreased (e.g., 8% in 2010) (Blau & Kahn, 2017). Instead, the largest factors contributing to the gender wage gap today are workforce interruptions and fewer hours among women, along with persistent gender segregation by field and occupation (Blau & Kahn, 2017; Goldin, 2014). Even after accounting for these factors, there is still an unexplained gap (female-to-male wage ratio at 91.6%). Blau & Kahn (2017) suggest the unexplained part of the wage gap captures gender discrimination since it reflects the gender disparity between men and women who are identical on all observable measures available.

Discrimination involves "any behavior or action that results in the unfavorable treatment of a person because of their sex or gender" (Heilman & Manzi, 2016). Given the number of factors that could contribute to differential treatment by gender and a general change in norms surrounding the expression of discrimination (Swim et al., 1995), it is incredibly difficult to isolate the effect of discrimination on labor market outcomes. Despite these challenges, experimental evidence of persistent discrimination against women suggests that it cannot be discounted as an explanation for the gender wage gap, among other gender differences in labor market outcomes (see Welle & Heilman, 2007; Heilman & Caleo, 2018b for review). In combination with evidence of discrimination from the field (Allen, 2006; Goldin & Rouse, 2000; Kulich et al., 2011; Milkman et al., 2012; Moss-Racusin et al., 2012; Treviño et al., 2018), there is strong evidence that discrimination is an important driving force in gender differences in labor market outcomes, especially for certain fields/occupations.

Even if rates of discrimination are relatively low, they are likely to have a disproportionate impact. Through a simulation study, Martell et al. (1996) show that gender disparities at the highest level of an organization are likely (i.e., women represent only 35% of the employees promoted to the top of the organizational hierarchy) even if an applicant's gender explains only 1% of the variance in decisions for iterated promotions in a company (simulating upward mobility). Discrimination can also hurt women's labor market outcomes inadvertently. For instance, women may avoid certain fields or occupations because they expect discrimination to reduce their relative gains from investing in certain career paths (Blau et al., 2006b). Similarly, discrimination can reduce one's engagement in their work and willingness to engage in organizational citizenship behaviors (Ensher et al., 2001; Shaffer et al., 2000), which can hamper career advancement (Allen, 2006).

Overview of theoretical model

Since women's labor market progress has stalled over the past two decades (Blau & Kahn, 2006; Goldin, 2014), identifying and understanding the factors that perpetuate gender differences in labor market outcomes is crucial for achieving gender equality in the long-term. Though gender-based discrimination is multiply-determined (Aigner & Cain, 1974; Akerlof & Kranton, 2000; Arrow, 1973; Becker, 1957; Bian, Leslie, et al., 2018b; Goldin, 2014; Heilman & Caleo, 2018b; Manzi, 2019; Milkman et al., 2012; Phelps, 1972; Reskin,

2000), this paper focuses primarily on one set of core psychological processes that has been shown to contribute to discrimination (see Figure 1, page 7). Throughout this paper, discrimination encompasses two categories of outcomes: recognition and penalties (Figure 1, Boxes 4 and 5). Discrimination through differential recognition involves men receiving more positive outcomes (e.g., larger salary offers, more training/mentoring or job offers) than women for the same work because of gender stereotypes. Penalties are social and economic punishments or impediments (e.g., greater dislike or more sabotage) imposed on women who violate gender norms, despite exhibiting the same behavior as their male counterparts (also known as backlash, see Rudman et al., 2012 for review). Although this model may apply to discrimination against men at work, there is far less research focused on this topic, so understanding if and how workplace discrimination against men occurs still needs to be explored in greater depth (see Future Directions section).

Division of labor at home and work

In the current paper, I focus on the gender division of labor as one important starting point leading to gender discrimination (Figure 1, Box 1). The division of labor by gender takes many forms, including women's relatively larger involvement in household responsibilities (Bianchi, 2000; Bianchi et al., 2012; Bittman & Wajcman, 2000; England, 2006; Milkie et al., 2002), men's relatively greater participation in the labor force (Blau et al., 2010), and occupational segregation within the labor force (Levanon & Grusky, 2012, 2016). The dimension of occupational segregation most relevant to the proposed model is horizontal segregation (Altonji & Blank, 1999; Bertrand & Hallock, 2001; Blau & Kahn, 2017), where men and women disproportionately occupy different fields or occupations within the labor market. The persistent underrepresentation of women in certain STEM fields (Cheryan et al., 2017) exemplifies horizontal segregation.

Descriptive, prescriptive, and proscriptive stereotypes about agency and communion

I argue that the division of labor by gender, in its various forms, contributes to gender stereotypes (Figure 1, Paths A and B) because of observers' automatic tendency to make correspondent inferences about men and women's dispositions (Gawronski, 2004; Gilbert & Malone, 1995; Jones & Harris, 1967; Ross, 1977). Namely, people infer women and men possess different dispositions based on their assumptions about the attributes needed for the social roles they typically hold (Diekmann & Eagly, 2000; Diekmann & Goodfriend, 2006; Eagly & Steffen, 1984, 1986; Eagly & Wood, 2012; March et al., 2016). For instance, nurses are typically described as caring (Cejka & Eagly, 1999; Cortes & Pan, 2018; He et al., 2019), and most nurses are women (Bosak et al., 2012; He et al., 2019), which leads people to infer women are more caring than men (Eagly & Wood, 2012; Gustafsson Sendén et al., 2019; Szesny et al., 2019; Wood & Eagly, 2012).

These correspondent inferences have led to prominent gender stereotypes (Figure 1, Boxes 2 and 3) that exist across cultures (Fiske, 2017; Steinmetz et al., 2014; Williams & Best, 1982, 1990). Stereotypes involve prescriptive, proscriptive, and descriptive components (Prentice & Carranza, 2002), where prescriptive and proscriptive stereotypes reflect

cognitive representations of the characteristics women and men should and should not have, respectively, while descriptive stereotypes are representations of the typical man and woman (Burgess & Borgida, 1999).

Gender stereotypes encompass a variety of attributes. For instance, there are physical (e.g., women are dainty), cognitive (e.g., men are analytical), and personality-based (e.g., women are nurturing) stereotypes (Cejka & Eagly, 1999; Deaux & Lewis, 1984). This paper will focus on the gender stereotypes surrounding communion and agency, since these traits have been studied heavily in relation to gender (see Abele & Wojciszke, 2014; Sczesny et al., 2019 for review), are fundamental characterizations in social cognition (Abele & Wojciszke, 2014), and as such, are likely to contribute to gender discrimination. Across cultures, agency and communion are important both in perceptions of oneself and others (Abele et al., 2008; Abele & Bruckmüller, 2011; Wojciszke & Abele, 2008). Individuals even make attributions of faces along these dimensions, demonstrating the pervasive nature of these characterizations in person perception (Oosterhof & Todorov, 2008; Todorov et al., 2008, 2015).

Agency consists of traits that are described as self-oriented (e.g., competent, assertive, and competitive) because they typically help an individual achieve goals and successfully accomplish tasks (Abele & Wojciszke, 2014). Communal traits (e.g., nurturing, supportive, and moral) are considered other-oriented because they help individuals develop and maintain social relationships (Abele & Wojciszke, 2014). There is mixed evidence on whether agency and communion should be regarded as compensatory (that is, perceptions of high agency in others leads one to infer that a person is low in communion), independent, or even positively related, arguably because the mode of measurement affects the relationship between the two traits (Abele & Wojciszke, 2014). It has been argued that these traits tend to be negatively related while comparing social groups (Fiske, 2018; Judd et al., 2005; Kervyn et al., 2010), which is reflected in gender attributions. For instance, women are expected to exhibit high levels of communion, but not necessarily high levels of agency (Broverman et al., 1972; Eagly & Steffen, 1984, 1986; Eagly & Wood, 2012; March et al., 2016). On the other hand, men's typical roles lead perceivers to infer that they are highly agentic and relatively low in communion.

Gender discrimination: Recognition and penalties

Certain occupations are perceived to require high levels of agency, especially male-dominated occupations (He et al., 2019) and high-status positions, like those in leadership (Eagly & Karau, 2002; Heilman, 2001). Since women are typically attributed low agency (Sczesny et al., 2019), they are more likely to experience discrimination for being perceived as insufficiently agentic, especially in the occupations that are perceived to require agency for success (Figure 1, Path C) (Eagly & Karau, 2002; Heilman, 1983, 2001; Heilman & Caleo, 2018b). Additionally, individuals discriminate against women for violating gender prescriptions and proscriptions (Figure 1, Path D) (Rudman et al., 2012). Following Prentice & Carranza (2002), the proposed model argues that women are most likely to be discriminated against for failing to abide by intensified prescriptions (e.g., women should

be warm and kind) and for violating intensified proscriptions (e.g., women should not be arrogant) (Figure 1, Path D).¹ Behavior that does not align with intensified prescriptions and proscriptions will lead to discrimination through disparate treatment, where gender deviants are often punished or socially excluded (Rudman et al., 2012). On the other hand, Prentice & Carranza (2002) notes that relaxed prescriptions for women's intelligence is an example of discrimination based on disparate standards, which is exemplified by former President George W. Bush describing the low standards typically held for ethnic minority students in the classroom as "the soft bigotry of low expectations" (Bush, 2004). Although this paper will focus on disparate treatment, discrimination through disparate standards is still incredibly important for advancing gender equality.

Next, I argue that descriptive stereotypes about women's low agency lead to discrimination by reducing their recognition relative to similarly qualified men (Figure 1, Path C) (Burgess & Borgida, 1999; Heilman & Caleo, 2018b, 2018a). On the other hand, discrimination for violating gender prescriptions and proscriptions will result in greater penalties (Figure 1, Path D) (Burgess & Borgida, 1999; Heilman & Caleo, 2018b, 2018a). Although discrimination based on descriptive stereotypes may result in less recognition, it is unlikely descriptive stereotypes lead to active penalties because active penalties are typically reserved for violations of gender-based expectations (Prentice & Carranza, 2003). In fact, descriptive stereotypes about women are typically perceived more positively than those about men (Eagly et al., 1991; Eagly & Mladinic, 1989, 1994), so it is unlikely that women would be penalized for being perceived in alignment with descriptive stereotypes. Instead, discrimination based on descriptive stereotypes is typically construed as the result of a perceived lack of fit (Heilman, 1983, 2001; Heilman & Caleo, 2018a) or role incongruity (Eagly & Karau, 2002) between perceptions of women's typical traits and environments that require high levels of agency.

¹ Intensified prescriptions are traits or behaviors that are more desirable in one gender than society in general, whereas prescriptions are relaxed when it is less desirable for one gender to exhibit a trait or behavior than society in general (e.g., women do not need to be especially intelligent or mature). On the other hand, intensified proscriptions are traits or behaviors that are far less desirable in one gender than society more generally, while relaxed proscriptions occur when generally undesirable traits or behaviors are allowed more often in one gender than across society (e.g., women are allowed to be yielding and impressionable).

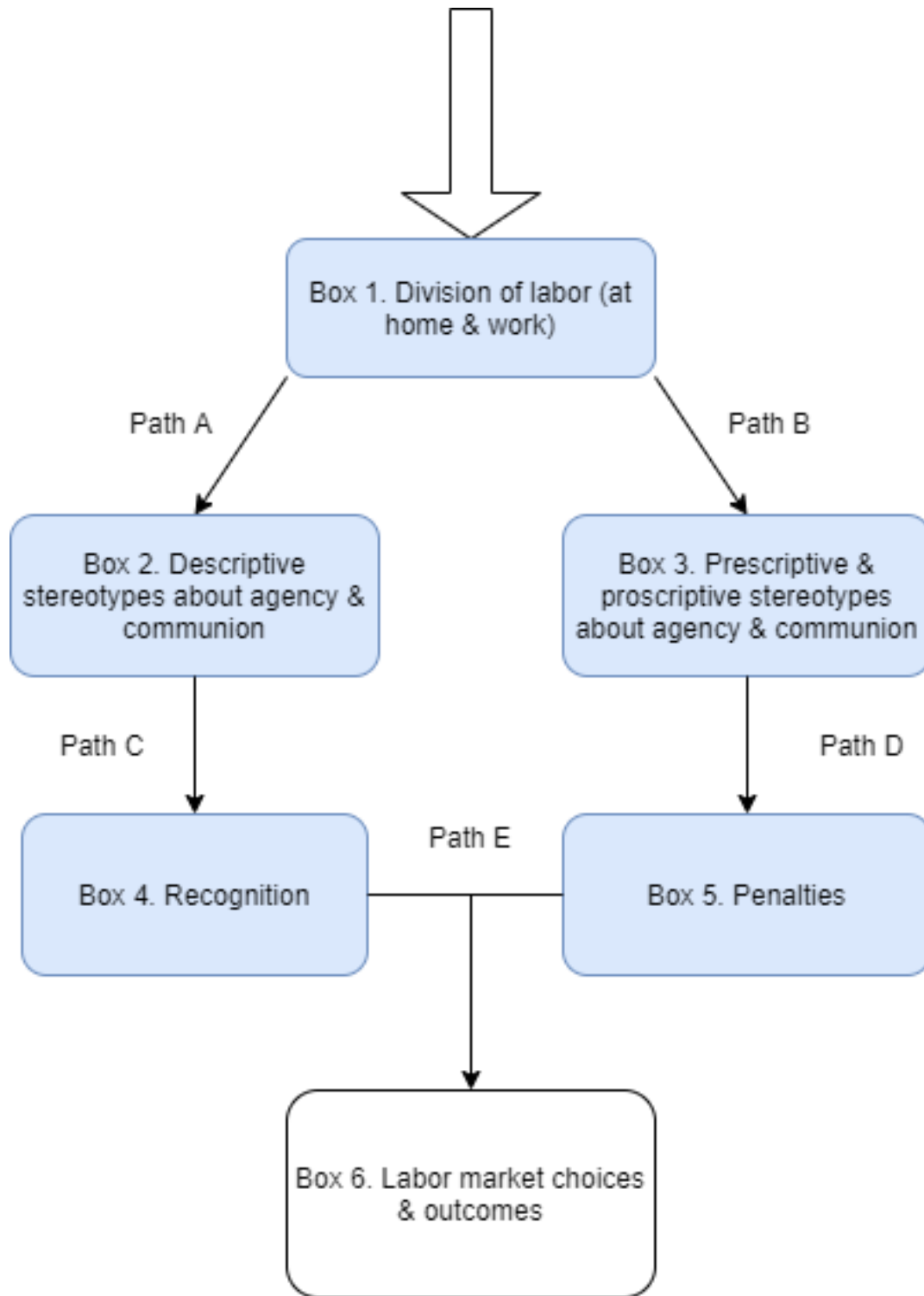


Figure 1. Processes of interest are highlighted blue, while other closely related topics that are outside of the scope of the paper have a white background

Division of labor (both at home and work)

Division of labor at home

There are persistent gender differences in household labor (Figure 1, Box 1) that feed into gender stereotypes about agency and communion (Figure 1, Paths A and B; details below). The gender division of labor in housework has become more equal over the past several decades (Bianchi et al., 2012), in small part because men fulfill more household responsibilities and in large part because women allocate far less time to housework (Bianchi, 2000). Despite these changes, women still spend more time on unpaid labor in the house (Bianchi et al., 2012; Kan et al., 2011). For instance, as recently as 2009-2010, women completed 1.6 times the amount of housework men completed and spent 13.7 hours per week on childcare relative to men's 7.2 hours per week (Bianchi et al., 2012). It is also likely that these estimates are not completely representative of the division of labor at home because they are primarily based on reports of primary activities (i.e., what a person describes as their main activity at a given time), and do not account for the cases where childcare or housework is considered a secondary activity (i.e., a supplementary activity performed at the same time as the primary activity) (Bianchi, 2000; England, 2006). Failing to account for secondary activities likely underestimates gender gaps in household responsibilities, since women are more likely to report combining leisure time as a primary activity with childcare as a secondary activity, while men are more likely to have more "pure" leisure time that is not combined with other activities (Bittman & Wajcman, 2000).

Division of labor at work: Horizontal segregation

Stereotypes about gender differences in communion and agency are also perpetuated by horizontal segregation (Figure 1, Paths A and B), a category of the division of labor at work (Figure 1, Box 1). Horizontal segregation occurs when men or women are disproportionately represented in a given occupation or field relative to the rate of employment for their respective gender overall. Occupational segregation by gender maps onto an occupations' alignment with gender stereotypes, where women are more likely to be employed in occupations that are characterized in more communal terms, while men are more likely to be employed in occupations that are perceived to require agency (Cortes & Pan, 2018; Levanon & Grusky, 2012). For instance, women only represented 47% of the labor force in 2016 but occupied 75% of jobs in education and health services, which likely perpetuates and is influenced by beliefs about women's greater communion (Folbre, 2018). Horizontal segregation also persists in the increasing proportion of subfields dominated by one gender. For example, within medicine, women are more likely to be employed in pediatrics, family practice, and obstetrics-gynecology, while men are more likely to be employed in surgery, hospital specialties, and internal medicine (Boulis et al., 2001; Levanon & Grusky, 2016).

The most common metric of horizontal segregation is known as the Duncan segregation index (a.k.a. the index of dissimilarity), which calculates the proportion of women (or men) who would have to change occupations for the proportion of men and women in a given occupation(s) to be equal (Duncan & Duncan, 1955), where values of 1 indicate complete

segregation (i.e., 100% of women would have to change careers for equality across occupations). Based on this index, there is still extensive gender segregation by field (Jacobs, 1995; Jacobsen, 1994; Levanon & Grusky, 2016; Reskin, 1993), to the extent that more than half of women would need to switch careers for occupational parity (Blau et al., 2013; Hegewisch & Hartmann, 2014; Jacobs, 1999) and more than a third would need to change college majors for gender parity in college major (Jacobs, 1995).

Effects of the division of labor on descriptive, prescriptive, and proscriptive stereotypes

Observing men and women in different roles affects beliefs about agency and communion in men and women (Figure 1, Paths A and B) (Bosak et al., 2012; Cejka & Eagly, 1999; Eagly & Steffen, 1984, 1986; Gustafsson Sendén et al., 2019; Hoffman & Hurst, 1990; Kite, 1996; Koenig & Eagly, 2014, 2019). In one of the first studies testing this hypothesis, Eagly & Steffen (1984) manipulated the gender (female or male) and role (homemaker, employee, or no information about role) of a target in a vignette. Participants were asked to rate the target on personality attributes, with a focus on their ratings of the target's communion and agency, and the target's likelihood of employment. Many of their findings align with the assumptions of the current model. First, they found a main effect of target gender on perceived likelihood of employment, where participants inferred women were less likely to be employed when they had no role information. Further, when participants did not have any role information about a given target, their ratings aligned with gender stereotypes: women were rated higher on communion and men were rated higher on agency. Additionally, they found a main effect of role on trait attributions, where targets that were described as homemakers were generally rated as more communal compared to employees. As expected, they found an interaction between target gender and target role, such that role information eliminated stereotypical ratings of communion and agency for male and female targets. Thus, female and male employees were both seen as highly agentic relative to female and male homemakers. Eagly & Steffen (1984) also ran several experiments to eliminate alternative explanations for their observed pattern of results. For instance, they manipulated status (high or low) of a target to determine whether observed gender differences in status could explain differential ratings of communion and agency based on target gender and did not find strong support for this explanation.

A follow-up study conducted by Hoffman & Hurst (1990) tested whether a division of labor is theoretically sufficient to elicit stereotypes, even when there are no observable differences in personality between groups. Participants were told about a fictional society with a division of labor based on group membership. Notably, participants were led to believe that biological sex did not exist in the society to reduce the likelihood participants would designate one group as male or female based on the roles they were assigned. To establish the division of labor, Hoffman & Hurst (1990) explained one group of the society largely functions as "child raisers" who spend "most of their time at the group home, where they take responsibility for the care and teaching of the group's young" while the other group functions as "city workers" who "travel to the city each day and return to the group home in the evening." Then, participants read descriptions about several members from each group, which randomly assigned communal and agentic personality traits to each

member. Since there was no association between personality, roles, and group membership based on the descriptions, any differences in ratings of the groups thereafter could not be attributed to observed differences in traits. Yet, participants believed child raisers were more communal than city workers, especially when the groups were described as biologically-based (i.e., different species) and when participants had to explain the cause of the division of labor before completing personality ratings for each group. Many of the participants who had to explain the division of labor assumed innate differences in personality and/or preferences led to the division of labor, which arguably elicited stronger stereotypes about each group's agency and communion. By explicitly establishing independence between group, role, and personality in the target descriptions, Hoffman & Hurst (1990) provide compelling evidence that stereotypes about agency and communion based on the division of labor can arise even when there are no underlying differences in traits. A replication with different roles that are not distinctly linked to certain social groups (i.e., businesspeople and academics) shows similar patterns, supporting the idea that a division of labor can contribute to gender stereotypes about agency and communion (Hoffman & Hurst, 1990). In sum, there is robust causal evidence in the lab demonstrating that the division of labor is sufficient to elicit descriptive gender stereotypes about agency and communion (Bosak et al., 2012; Cejka & Eagly, 1999; Eagly & Steffen, 1984, 1986; Gustafsson Sendén et al., 2019; Hoffman & Hurst, 1990; Kite, 1996; Koenig & Eagly, 2014, 2019). However, the literature has not yet explicitly tested whether the division of labor contributes to gender prescriptions and proscriptions about agency and communion. Although descriptive stereotypes tend to share many traits with prescriptive and proscriptive stereotypes, the two types of stereotypes do not completely overlap (Prentice & Carranza, 2002), so establishing the causal relationship between the division of labor and gender prescriptions and proscriptions is an important avenue for future research.

Effects of descriptive stereotypes on discrimination

Descriptive stereotypes by themselves can lead to discrimination against women because women are perceived as less capable of fulfilling roles that require high agency (Eagly & Karau, 2002; Heilman, 2001; Heilman & Caleo, 2018b), resulting in less recognition for similar achievements (Figure 1, Path C). Therefore, solely because of *who they are* (i.e., gender identity), women face bias at work. Here, evidence of the effects of descriptive stereotypes on discrimination both in the lab and field will be reviewed. Additionally, I will discuss moderator variables that reduce or exacerbate the effect of descriptive stereotypes about agency and communion on discrimination, as a means of demonstrating how the effects of gender stereotypes about agency and communion on discrimination can vary wildly across contexts.

Recognition

Differential recognition in the labor market based on one's gender is manifested in different ways, from the unexplained portion of the gender pay gap (Blau & Kahn, 2017) to gender differences in the likelihood of being offered endowed chair positions (Treviño et al., 2018), despite controlling for all possible observable differences. For instance, Kulich et

al. (2011) show that female executives' bonuses are less sensitive to their performance, suggesting that the company's success is less likely to be attributed to their effective leadership. This is likely the result of the "Think Manager, Think Male" phenomenon originally conceived by Schein (1973), which is driven by perceptions of an agency deficit among female leaders (Eagly & Karau, 2002) because many of the attributes that are rated as important for successful managers are associated with men across cultures (Heilman et al., 1989; Powell & Butterfield, 1989; Schein, 2001). Recent studies suggest stereotypes of leaders have become less masculine over time (Koenig et al., 2011). As a result, the perceived incongruity between women and leadership roles has decreased over time, such that women are more likely to be perceived as effective in these positions (Paustian-Underdahl et al., 2014). Notably, women are still required to behave in communal ways in their leadership positions (Vinkenburg et al., 2011), suggesting the importance of fulfilling gender prescriptions in the workplace.

There is also evidence that women have fewer opportunities because of descriptive stereotypes. One well-known example draws from research on the effects of implementing blind orchestra auditions on the proportion of women who were advanced and hired from an initial pool of applicants for orchestra positions (Goldin & Rouse, 2000). In the 1970s and 1980s, the majority of orchestras began holding auditions behind a screen to conceal the players' identity and reduce the possible effects of bias on hiring decisions. Since the timing of the implementation of this policy varied across orchestras, Goldin & Rouse (2000) used an individual fixed-effects framework to demonstrate that blind auditions explained between 30-50% of the increase in female hires and between 25-46% of the increase in women's representation in orchestras since their implementation in 1970. Although Goldin & Rouse (2000) were unable to identify mechanisms driving the discrimination against female musicians, an audit study with science faculty parallels these findings while identifying possible mechanisms. Moss-Racusin et al. (2012) conducted a randomized double-blind study where faculty in biology, chemistry, and physics rated the application materials of a student applying for a lab manager position. Participants' gender was signaled through the name on the application. Despite identical application materials, female applicants were perceived as less competent and hireable, while being offered less career mentoring and lower starting salaries relative to male applicants (Moss-Racusin et al., 2012). Descriptive stereotypes about agency drove these discriminatory behaviors, since perceptions of competence fully mediated the effect of gender on perceptions of hireability. This finding exemplifies the effect of descriptive stereotypes on discrimination by showing equally qualified men and women are offered different opportunities solely based on perceivers' beliefs about their agency.

In many work environments, working on teams is a necessary part of the job. Unfortunately, when information about each team members' contribution is ambiguous, women may be disadvantaged. Perceivers, relying on stereotypes about men's greater agency, will likely assume that women's contributions were less crucial for driving the team's success. For instance, women's contributions in dyads are less likely to be recognized and valued, where they are rated as less influential and less likely to have played a leadership role on the team (Heilman & Haynes, 2005). As a result, many efforts to encourage women's career advancement, such as mentoring programs, can actually

backfire because women's success may be attributed to their male mentor, reducing perceptions of their own competence and contribution to the work (Heilman, 2012).

Reuben et al. (2014) provide further evidence of discrimination within the lab, showing that men are twice as likely to be "hired" to complete an arithmetic task by participants, even though men and women perform equally well on the task. In fact, even when participants had complete information about an individual's previous performance, discrimination against women was not completely eliminated. As a result of these decisions, women's expected earnings were 19.4% lower than men's. They use the Implicit Association Test to measure participants' implicit stereotypes associating gender with math and science. In general, participants were less likely to associate women with math and science, and the strength of participants' stereotypes predicted their expectations of the gender difference in performance. For similar reasons, women are less likely to be recommended for jobs that emphasize brilliance (Bian, Leslie, et al., 2018a).

Relatedly, women are often required to fulfill additional responsibilities based on stereotypes about their communion, while men who engage in these optional tasks are more likely to benefit from their discretionary altruism. For instance, the positive relationship between organizational citizenship behavior, defined as optional and unpaid behaviors that help the organization function (Organ, 1988), and promotion is stronger among men (Allen, 2006). This implies that women's organizational citizenship behavior is considered less "optional," such that their outcomes are less sensitive to these behaviors.

Additionally, a new line of work suggests women are more likely to be asked to complete low promotability tasks by others (Babcock, Recalde, & Vesterlund, 2017; Babcock, Recalde, Vesterlund, et al., 2017). Although the mechanism underlying this finding was not established, one possibility is that perceiver's assumptions about women's higher communion but lower agency leads them to believe low promotability tasks are more suitable for women. Evidence of this general pattern is found both in the lab and the field (Babcock, Recalde, Vesterlund, et al., 2017; Benschop & Doorewaard, 1998; De Pater et al., 2010; Misra et al., 2012; Mitchell & Hesli, 2013; Ohlott et al., 1994). For instance, Babcock, Recalde, Vesterlund, et al. (2017) show that women are more likely to be asked to volunteer and accept requests to volunteer when a group decides how to allocate a task that must be completed to avoid costs imposed on the group, but is generally less rewarding for the individual who ends up completing the task. Participants' decision to request female volunteers are driven by beliefs that women would be more likely to complete the task (Babcock, Recalde, Vesterlund, et al., 2017). Additionally, women are more likely to volunteer in mixed-sex groups relative to same-sex groups, providing further evidence that beliefs about gender differences in volunteering are driving the effects, instead of gender differences in altruism or risk (Babcock, Recalde, Vesterlund, et al., 2017). Notably, a follow-up study does not suggest women are accepting these low promotability tasks for fear of backlash (Babcock, Recalde, & Vesterlund, 2017), although the authors argue the incentives for punishing others may not have been high enough to be sufficiently salient and do not completely eliminate that possibility. Gender differences in likelihood of completing low promotability tasks is also evident in the field. Notably, people generally agree which tasks are considered less important for career advancement, suggesting that there are not gender differences in recognizing which tasks are necessary

for promotion. For instance, a survey of faculty at Carnegie Mellon rating the importance of a list of tasks that would be most integral in increasing the likelihood of promotion suggests that faculty generally agree that service-oriented tasks (e.g., serving on the undergraduate curriculum revision committees and serving on the faculty senate) are less promotable relative to research-oriented tasks (e.g., working on a research paper and presenting research talks at conferences) (Babcock, Recalde, Vesterlund, et al., 2017). Yet, female faculty are more likely to complete service-oriented activities (e.g., advise more undergraduates, spend more time on committees) (Misra et al., 2012; Mitchell & Hesli, 2013). There are similar findings in other fields, where women are less likely to be offered challenging tasks or developmental opportunities relative to men (Benschop & Doorewaard, 1998; De Pater et al., 2010; Ohlott et al., 1994). These patterns are disconcerting because they have the potential to slow women's career advancement. Overall, there is substantial causal evidence in the lab demonstrating the effects of descriptive stereotypes about agency and communion on gender discrimination in the form of differential recognition.

Moderators of the relationship between descriptive stereotypes and discrimination

The relationship between descriptive stereotypes and discrimination can be exacerbated or completely eliminated based on perceiver characteristics, target characteristics, and contextual features. Discrimination is largely driven by a change in perceptions of the targets' characteristics and/or a change in perceptions of the characteristics needed for a certain role, both of which will change the suitability of a target for a given role.

One contextual feature that affects perceptions of the characteristics needed for a given role is the representation of women within a given occupation or field. Specifically, women are more likely to suffer discrimination when they are underrepresented (Heilman, 1980; Heilman & Blader, 2001; Sackett et al., 1991), which may be driven by the belief that occupations or fields that are male dominated require masculine traits for success (Cejka & Eagly, 1999; Gustafsson Sendén et al., 2019). Policies like affirmative action or diversity initiatives can draw attention to people's differences and lead to discrimination, arguably because they cause people to view women in more stereotypical terms (Heilman, 1996; Heilman et al., 1996, 1997, 1998; Heilman & Welle, 2006; Kanter, 1977). Another contextual moderator is the amount and/or ambiguity of information used for decision-making (Davison & Burke, 2000; Koch & Sackett, 2016), where decision-makers who have less individuating information are more likely to rely on descriptive stereotypes.

In terms of target characteristics, a risk factor for discrimination is perceived femininity, where women who are perceived as more physically attractive or are parents are rated as less competent (Heilman & Okimoto, 2008; Heilman & Stopeck, 1985), arguably because perceptions of their femininity increase the perceived disparity between agentic roles in the labor market and their characteristics. There is increasing evidence of a "motherhood penalty," where mothers tend to be offered lower wages and are less likely to be selected for promotion because they are perceived as less competent and committed to their jobs (Aranda & Glick, 2014; Bear & Glick, 2017; Benard & Correll, 2010; Correll et al., 2007;

Crosby et al., 2004; Cuddy et al., 2004; Fuegen et al., 2004; Halpert et al., 1993; Heilman & Okimoto, 2008).

Milkman et al. (2012) show that temporal proximity of a social interaction affects the likelihood of discrimination. Their arguments draw from construal level theory, which suggests that temporally proximal future events are more likely to focus perceivers' attention on the details, feasibility, and logistics of an event, while temporally distal future events elicit greater emphasis on the reasons an event should occur and one's personal desire for the event to occur. Milkman et al. (2012) predicted temporal construal affects the likelihood of stereotyping, and in turn, discrimination. In their audit study, they sent e-mails from fictional prospective doctoral students to professors across all academic fields at the top 260 U.S. universities while manipulating the students' gender, race, and the temporal proximity of the students' request for a meeting (either within the same day or within one week). They showed that women and minorities were less likely to receive responses, received slower responses, and were less likely to be granted the opportunity to meet with the professor in the temporally distal condition, arguably because they were more likely to be portrayed more abstractly and hence, in more stereotypical terms, when they requested to schedule a meeting in one week. This "temporal discrimination effect" was eliminated in the proximal condition, where prospective students requested to meet within the same day.

Additionally, there is evidence that discrimination is most likely among perceivers with greater gender bias and when the traits perceived as necessary for success on the job contradict stereotypes about one's gender (Davison & Burke, 2000; Desai et al., 2012; Dobbins et al., 1988). For instance, Moss-Racusin et al. (2012) find that responses to the modern sexism scale moderate the effects of applicant gender on science faculty's perceptions of applicants' competence and hirability and their willingness to provide career mentoring for the applicant.

Finally, when women hold a gender incongruent job (e.g., female police chief), they are more likely to be conferred lower status when they make a mistake on the job (Brescoll et al., 2010). This is arguably driven by descriptive stereotypes, which increase the salience of the incongruity between one's gender and role, leading perceivers to attribute mistakes to internal causes when women are in a counterstereotypical occupation. Although full consideration of the moderators of the relationship between stereotypes and discrimination is outside of the scope of this paper, I describe selected moderators to demonstrate the importance of context in determining the strength of the relationship between descriptive gender stereotypes about agency and communion and gender discrimination.

Effects of prescriptive and proscriptive stereotypes on discrimination

Descriptive stereotypes for women at work typically overlap with prescriptive and proscriptive stereotypes about the roles and traits women *should* and *should not* have at work. That is, people believe women *should* hold positions that require high communion and *should not* exhibit high agency (Prentice & Carranza, 2002). As a result of prescriptive

and proscriptive stereotypes, women are in a double bind, where deviating from gender norms leads others to penalize them at work for being insufficiently communal, while abiding by others' expectations can lead to less recognition because they are perceived as insufficiently agentic (Figure 1, Paths C and D) (Bowles et al., 2007; Burgess & Borgida, 1999; Heilman, 2001; Heilman & Haynes, 2005; Rudman & Glick, 2001). In the following sections, evidence of the effects of prescriptive and proscriptive stereotypes on discrimination is combined because, unless otherwise noted, much of the research on this topic does not explicitly disentangle whether failing to fulfill prescriptive stereotypes or violating proscriptive stereotypes leads to the observed discrimination (see Future Directions).

Penalties

There is substantial evidence of women suffering social and economic penalties for failing to be sufficiently communal and/or too agentic (Rudman et al., 2012). The case of Ann Hopkins is one well-documented example of women being penalized for failing to abide by prescriptive and proscriptive stereotypes. Hopkins sued the accounting firm Price Waterhouse in 1989 for sex discrimination after being denied partnership. Despite her strong performance at the firm, she was not promoted because she did not fulfill other employees' expectation that women should be communal and should avoid being exceptionally agentic, as suggested by recommendations from her co-workers to take a "course in charm school." Feedback from the head supervisor of her department at the time, Thomas Beyer, echoes these sentiments, where he suggested she "walk more femininely, talk more femininely, dress more femininely, wear make-up, have her hair styled, and wear jewelry" to increase her chances of promotion during the next round (Burgess & Borgida, 1999; Hopkins, 1989). This landmark case was the first to claim gender stereotyping as an unlawful cause of discrimination against women. Despite this triumph for women in the workplace, women are still penalized based on prescriptive and proscriptive stereotypes to this day.

For instance, if mothers are indisputably competent and committed to their work (arguably the largest drivers of the aforementioned motherhood penalty), they are less likely to be perceived as warm and likable (Benard & Correll, 2010; Corse, 1990). Since social skills have become increasingly important for labor market outcomes (Deming, 2017) and likability is important for career advancement (Cardy & Dobbins, 1986; Carli, 2001; Casciaro & Lobo, 2005; Heilman et al., 2004), these perceptions have important implications for women's economic outcomes. Benard & Correll (2010) show that lower perceived warmth and likability of indisputably competent mothers mediated the relationship between motherhood and recommendations for a starting salary, ratings of hirability, and ratings of promotability. Mothers were also held to stricter standards of performance, where they had to earn higher scores on a test of management ability to be considered eligible for a position (Benard & Correll, 2010). Thus, social penalties for mothers' active involvement in the workforce can directly hurt their economic outcomes.

Women's interpersonal behaviors at work are also closely regulated. As a result, women receive more negative evaluations than men if they are impolite, disrespectful, or do not seem to care about the well-being and needs of subordinates (i.e., interactional injustice),

but failing to follow proper procedures to make decisions (i.e., procedural injustice) does not hurt their evaluations more (Caleo, 2016). Similarly, women are evaluated less favorably when they fail to engage in organizational citizenship behavior, while men's evaluations are not affected (Heilman & Chen, 2005). Women are also expected to be inclusive as part of their communal nature, so if they fail to engage in inclusive behaviors, they are less likely to be recommended for promotion, high profile projects, bonus pay, and salary increases (Chen, 2008). Thus, prescriptions to be communal can interfere with women's ability to advance their career.

Anger, like pride, can signal one's competence and deservingness of high status (Shields, 2002, 2005; Tiedens, 2001). However, expressing anger contradicts prescriptive and proscriptive stereotypes about women's communion and agency. In a lab study using adult participants with work experience, women who showed anger in response to a work incident (manipulated through statements ostensibly made during a "job interview" for a professional position) were conferred lower salaries (\$23,464) relative to angry men (\$37,807) (Brescoll & Uhlmann, 2008). On top of that, expressing anger led to lower status ratings for women relative to a control condition, while angry men had especially high status ratings (Brescoll & Uhlmann, 2008). Thus, expressing anger within the workplace is disadvantageous for women both in economic and social terms.

Given the incongruity between women's prescriptive and proscriptive stereotypes and many of the behaviors required of leaders, women are more likely to be penalized if they engage in leadership behaviors that are more directive or autocratic relative to female leaders who engage in democratic or participative leadership behaviors (Eagly et al., 1992). For instance, when female leaders discipline others, it is seen as less effective and fair (Atwater et al., 2001), unless they discipline in a more participatory way by allowing two-way discussions with employees (Brett et al., 2005). Similarly, female CEOs who are described as more talkative and more likely to offer their opinion than others in power are far less likely to be perceived as suitable for leadership (Brescoll, 2011).

Also, when women are perceived as selfish, they are penalized because women are prescribed to put others before themselves. For instance, female politicians who are described as power-hungry are less likely to receive votes (Okimoto & Brescoll, 2010), which was partly explained by a perceived lack of communion. Since negotiations may be conceptualized as a competition motivated by self-interest, women who fail to accept others' compensation offers and try to negotiate for higher compensation are rated as less hireable and have fewer people who want to work with them (Bowles et al., 2007). Mediation analysis shows that people are less willing to work with women who negotiate because they are perceived as more demanding and less nice (Bowles et al., 2007). Although popular culture advocates for women to "lean in," research suggests there are social ramifications for doing so. In fact, Babcock et al. (2012) provides an economic model suggesting that it may be utility-maximizing for women to avoid negotiation because of the importance of social evaluation in career advancement across many occupations. Unfortunately, these penalties for negotiation disadvantage women economically, especially as initial differences in earnings add up over time: differences in starting salaries as small as \$5,000 can lead to a half a million dollar gap in wealth by retirement (Babcock & Laschever, 2009).

Other forms of punishment derive from the prescription for women to display modesty and the proscription against women displaying arrogance (Gould & Slone, 1982; Prentice & Carranza, 2002), where women who engage in self-promotion by highlighting their past accomplishments and making internal attributions for their success suffer social penalties (e.g., are rated as less likable, less popular, less friendly) and are rated as less hireable (Rudman, 1998).

Finally, there is a prescription for women to be wholesome, while people are more accepting of men who are rebellious (Prentice & Carranza, 2002), which leads people to punish women more when they engage in various forms of misconduct/misbehavior at work (e.g., going against their boss's decision, covering up mistakes, lying about hours worked) (Bowles & Gelfand, 2010). Overall, there is substantial causal evidence in the lab demonstrating the effects of prescriptive and proscriptive stereotypes about agency and communion on gender discrimination in the form of differential penalties.

Moderators of the relationship between prescriptive and proscriptive stereotypes and discrimination

Many of the variables that moderate the effect of descriptive stereotypes on discrimination are also moderators of the relationship prescriptive and proscriptive stereotypes and discrimination. However, the direction of the moderation effects may differ. Unlike discrimination based on descriptive stereotypes, increasing perceptions of one's communion can reduce discrimination based on prescription and proscription by negating the effects of counterstereotypical behavior. For instance, increasing perceptions of one's communion by dressing more femininely, mentioning being a mother, talking about more feminine hobbies, or using "feminine charm" during negotiation can counteract the negative perceptions from counterstereotypical behavior and lead to less discrimination against women (Heilman & Okimoto, 2007; Kray et al., 2012). For similar reasons, external explanations for counterstereotypical behavior, like negotiating on behalf of others or based on the recommendation of a supervisor (Amanatullah & Morris, 2010; Bowles et al., 2005; Bowles & Babcock, 2013), are likely to reduce discrimination against women. Thus, the timing of communal behavior matters: if communion is sufficiently salient to perceivers from the beginning, women are more likely to suffer from discrimination based on descriptive stereotypes about their lack of agency. On the other hand, if they exhibit counterstereotypical behavior and then behave communally, they are less likely to suffer from discrimination based on prescriptive and proscriptive stereotypes. Of course, by doing so, the risk of discrimination based on descriptive stereotypes increases, evincing the "double-bind" that women are typically in.

Another feature that affects the likelihood of discrimination based on prescriptive and proscriptive stereotypes is the salience of the behavior, since women are only penalized if their behavior is clearly identified as counterstereotypical. Since implicit expressions of dominance (e.g., direct eye contact, especially while speaking, open postures, close proximity, touching others, and louder, less interrupted speech) are less likely to be encoded as such, women who express dominance in this way are less likely to be penalized (Williams & Tiedens, 2016). Also, women who perform exceptionally well on a male-typed

task or job are more likely to experience discrimination because they are perceived as excessively agentic (Heilman et al., 2004; Rudman & Fairchild, 2004).

Unlike discrimination based on descriptive stereotypes, reducing ambiguity and/or providing more information about a target does not reduce the likelihood of discrimination based on prescriptive and proscriptive stereotypes (Gill, 2004). This is arguably driven by different motivations underlying these stereotypes, where descriptive stereotypes involve generalizations about the likelihood of a given trait among men or women, while prescriptive and proscriptive stereotypes evoke moral injunctions and as a result, are more likely to be laden with emotion.

Other variables/relationships relevant to the proposed model

Effects of gender discrimination on labor market choices and outcomes

To maintain a reasonably narrow scope for this theoretical framework, I do not explicitly address many inputs and outputs that are undeniably connected to the division of labor, stereotypes, and discrimination, along with many variables that likely affect the relationship between these concepts. First, discrimination can affect labor market choices and outcomes (Figure 1, Path E) by leading to “feedback effects,” where the expectation of gender discrimination in a given occupation leads women to avoid the occupation entirely (Blau et al., 2006b). On top of these feedback effects, direct experiences of discrimination can affect one’s decision to stay in certain occupations (Shaffer et al., 2000).

Causes of the division of labor

The division of labor by gender has been documented throughout humanity’s history and across cultures (Blau et al., 2010; Sanday, 1981; Wood & Eagly, 2012), although there is notable flexibility in the division and the types of tasks that have been designated for one gender (see Wood & Eagly, 2012 for review). According to the biosocial construction model of sex differences in behavior (Wood & Eagly, 2012), local environmental demands and physical sex differences lead to a division of labor. However, many of the ultimate explanations for the division of labor do not provide guidance for understanding how many modern occupations and/or fields become segregated by gender. It is possible that many modern roles do not clearly align with gender stereotypes about agency or communion, and as such, may be stereotyped relatively arbitrarily (e.g., based on economic conditions or technological advancements). For instance, computing was originally perceived to be an occupation suitable for women because of their involvement in activities that required meticulous precision, like knitting or weaving. However, the stereotypes of programmers changed drastically over time and programmers are now stereotyped as obsessed with technology and socially awkward. These changes, in combination with the growing value of computing for companies, which increased the status associated with programming, led to a shift towards greater gender segregation in computing (for a historical overview of women in computing, see Thompson, 2019). Although the causes of the division of labor

are not crucial to the central arguments of this paper, they are important for understanding how to counteract discrimination by diversifying the roles of men and women, and in turn, changing the content of gender stereotypes.

How are stereotypes formed and represented?

Several models have been proposed to explain the formation and representation of gender stereotypes, including prototype models, exemplar models, models based on schemas or base rates, and connectionist/associative network perspectives on stereotyping, along with models that combine one or more perspectives (for review, see Hilton & Hippel, 1996). Recent evidence demonstrates features of stereotypes most closely meet the assumptions of a connectionist perspective, suggesting gender stereotypes about agency and communion may be represented in this way (Cox & Devine, 2015). Under the connectionist framework, stereotypes reflect a pattern of activation that is based on two inputs: the context and the connection weights in an underlying network of nodes. Connection weights are updated incrementally as one gains exposure to different experiences in a process described as “learning.” Even though there is evidence for connectionist models of stereotype formation and representation, other models cannot be completely eliminated from the realm of possibility (Bordalo et al., 2016). As a result, the current proposal does not adhere to a specific model for the formation and representation of gender stereotypes about agency and communion and invites future research to address this question.

When are gender stereotypes initially learned?

Considering the influence of experience in driving the associations inherent in stereotypes, it is also important to consider how early these stereotypes develop. There is mounting evidence that gender stereotypes are learned at a young age (Martin & Ruble, 2009; Poulin-Dubois et al., 2002; Serbin et al., 2002). For instance, 10-month old infants are able to associate faces of women and men with gender-typed objects (Levy & Haaf, 1994), suggesting, at minimum, a capacity for primitive gender stereotypes within the first year of life. Although stereotypes have been shown to decrease among children, the degree to which gender stereotypes change among adults is still unclear given the current literature on the topic.

Paths between components of model

Many parts of the model are likely linked in ways that are not covered in the current paper for the sake of interpretation and parsimony. For instance, it is likely that gender stereotypes about agency and communion feed into the division of labor (reverse direction of Paths A and B from Figure 1), such that Paths A and B are bidirectional in reality. Gender stereotypes about agency and communion likely encourage women to invest more into the home and men to invest more into work (Benard & Correll, 2010; Park et al., 2008, 2010), especially since people arguably gain utility from behaving in alignment with their gender identity, which affects their economic decisions (Akerlof & Kranton, 2000).

Effects of division of labor at home and work on labor market choices and outcomes

Additionally, the division of labor at home can lead to gender differences in labor market outcomes outside of the effects of gender stereotypes about agency and communion (hypothetical arrow from Figure 1, Box 1 to Figure 1, Box 6), which is most prominent in careers that have less flexible time constraints and pay disproportionately more for longer hours (Goldin, 2014). Within the context of these environments, women who need flexibility or request fewer hours to fulfill household and childcare responsibilities earn far less than their male counterparts. Notably, the deleterious effects of job interruptions because of household responsibilities holds for both men and women (Butler & Skattebo, 2004; Coltrane et al., 2013; Rudman & Mescher, 2013; Wayne & Cordeiro, 2003). Since women are typically shouldering more household responsibilities (Bianchi et al., 2012), their labor market outcomes are more likely to be affected by the division of labor (Goldin, 2014; Goldin & Katz, 2010, 2011).

Effects of labor market choices and outcomes on division of labor at home and work

Additionally, gender disparities in the labor market can contribute to a division of labor at home (hypothetical arrow from Figure 1, Box 6 to Figure 1, Box 1). For instance, men and women may divide labor based on relative income within the household, where the individual who earns less is assigned more housework, arguably because their labor force participation is deemed less important for maintaining the household income (Bittman et al., 2003). At the same time, gender norms about the division of labor at home trump any efficiency gained from having the high earner of a household spend less time on housework. That is, when a couple violates gender norms because the wife outearns the husband, she spends even more time on housework (Bertrand et al., 2015; Bittman et al., 2003). Thus, the relationship between relative earnings and division of labor is affected both by gender norms and efficiency concerns, such that women's relative earnings reduce their household labor in couples where the wife earns less than the husband, but women who outearn their husband spend more time on housework. Relatedly, when a wife's potential income exceeds that of her husband, she is less likely to be employed or, if employed, earns less than expected given her education and experience (Bertrand et al., 2015). Although Bertrand et al. (2015) did not test whether beliefs shaped these outcomes, they suggest that these findings reflect the persistence of beliefs about the division of labor in the home, where men are prescribed to earn more than their wives, which motivates couples to find ways to compensate for any deviation from this standard, either by having the wife exit the labor force entirely or reduce labor force participation, or by having the wife spend extra time on household production. In fact, unemployed husbands spend less time on housework than their partners (Blau et al., 2010), suggesting the power of norms in driving the division of labor at home. These differences start as early as the teenage years, where girls spend more time on housework than their male counterparts (Hilbrecht et al., 2008; Porterfield & Winkler, 2007). Similarly, there is evidence that perceptions of the amount of time women spend on childcare was relatively unaffected by the number of

hours they purportedly worked, suggesting that these stereotypes hold despite evidence that they would presumably have less time for childcare (Park et al., 2008).

Future directions

Exploring mechanisms for backlash against stereotype-violating men

Burgeoning evidence suggests men are also likely to suffer from discrimination when they display counterstereotypical traits (Allen & Russell, 1999; Brescoll et al., 2012; Brescoll & Uhlmann, 2005; Butler & Skattebo, 2004; Caleo, 2018; Cohen & Bunker, 1975; Etaugh & Riley, 1983; Gerdes & Kelman, 1981; Heilman & Wallen, 2010; Judge et al., 2012; Kim & Weseley, 2017; Moss-Racusin et al., 2010; Rudman & Mescher, 2013; Wayne & Cordeiro, 2003). For instance, men who request family leave are evaluated less favorably (Rudman & Mescher, 2013) and male leaders who seek help are perceived as less competent, which was mediated by perceptions of their atypicality (Rosette et al., 2015). Similarly, male job applicants who advocate for others over themselves are less likely to be suggested for promotion, as mediated by perceptions of low agency (Bosak, Kulich, et al., 2018) and men who are agreeable (e.g., are trustworthy, modest, compliant, and straightforward) are far less likely to be recommended for career advancement in management (Judge et al., 2012). It is possible that men are permitted less flexibility in their behavior than women (Vandello & Bosson, 2013), so they may be punished to a greater degree when they exhibit counterstereotypical behavior, but more research is needed to understand whether and why this may occur (Manzi, 2019).

Understanding stereotypes and discrimination based on intersectional identities

Understanding the intersectional nature of these perceptions is important – especially considering evidence that these effects may differ based on one’s race, ethnicity, and sexual orientation, among several other identities (Derous et al., 2015; Livingston et al., 2012; Sesko & Biernat, 2010). Gender stereotypes about different races will vary based on historical differences in the division of labor at the intersection of gender and race. During industrialization, married Black women were far more likely to be employed, either as domestic servants or in agriculture in the South, than married White women (Blau et al., 2010). This was likely out of necessity, since the ideal work for women was still perceived to be in the home (Blau et al., 2010). Historical employment rates likely affect stereotypes about Black women today, and in turn, the likelihood of discrimination based on gender stereotypes about agency and communion. For instance, Black female leaders are less likely to be punished for dominant behavior than their White counterparts, arguably because descriptive stereotypes about Black women include higher levels of agency relative to White women (Livingston et al., 2012). Also, an incredibly important step for future research to make this model more relevant to individuals of different sexual orientations is to expand the current literature on discrimination at the intersection of gender and sexual orientation. It is unclear, based on the limited research available, how stereotypes about agency and communion among gay men or lesbian women affect discrimination, and in

turn, labor market outcomes. There is some evidence suggesting gay men are perceived as more suitable for stereotypically feminine jobs relative to heterosexual men (Barrantes & Eaton, 2018; Steffens et al., 2019), but it is unclear whether a division of labor at home drives these stereotypes and if/how these perceptions lead to discrimination.

Understanding mechanisms of discrimination based on perceiver gender

Another topic that needs more exploration is how mechanisms underlying discrimination may vary based on perceiver gender. In most studies, there are typically no differences based on a participant's gender in the tendency to engage in discriminatory behavior (Heilman & Caleo, 2018b). This may be surprising given women's greater exposure to gender discrimination. However, it is important to realize both women and men are constantly exposed to these stereotypes (Kite et al., 2008). More research is needed to understand whether there are differential motives for men and women to penalize others based on their gender (Derks et al., 2011; Parks-Stamm et al., 2008). For instance, there is some evidence that women may penalize other women who succeed in male-typed domains to protect their own ego (Parks-Stamm et al., 2008).

Testing implications of the model

Do gender stereotypes persist over time or are they responsive to contextual changes?

Women's labor force participation has increased exponentially over the past several decades (Goldin, 2006; U.S. Labor Bureau of Statistics, 2020), rising from 32% to 57% between 1960 and 2018 (where women here are defined as 16 years or older) (Blau & Kahn, 2017; Eagly et al., 2019; U.S. Labor Bureau of Statistics, 2020), while men's participation has decreased over the same period (from 82% to 69%). As a result, the gender gap in labor force participation fell to a 12% difference. Additionally, women have been increasingly entering male-dominated occupations (Blau et al., 2013; England, 2010; Reskin & Roos, 2009). The current model would imply that the drastic reduction of the gender gap in labor force participation and women's entry into male-dominated professions would change gender stereotypes about agency and communion over time. Moreover, it is likely that stereotypes about women will change more than stereotypes about men since their roles changed more drastically. Specifically, the model would predict that women will be perceived as more agentic over time given their increased labor force participation. To make the insights from the proposed model actionable, it would be useful to identify 1) if gender stereotypes about agency and communion are flexible in response to gender role change over time and 2) the consequences of stereotype flexibility for gender discrimination.

Diekmann & Eagly (2000) provide experimental evidence suggesting the flexibility of stereotypes in response to changes in the division of labor, where participants were asked to rate the typical characteristics of men or women in the future (year 2050) while varying the division of labor (i.e., equal division of labor, more traditional division of labor than the

one found today, same division of labor as the one today). As roles shifted towards equality, participants expected the traits of the typical man and woman to converge over time. An additional study addresses the possibility that perceptions of gender convergence in traits are driven by optimism about gender equality in the future by including traits associated with negative gender stereotypes. Contrary to this alternative explanation, women were expected to have increasingly positive and negative agentic traits as roles converged (Diekmann & Eagly, 2000). A follow-up study in Diekmann & Goodfriend (2006) directly manipulates cross-temporal changes in social roles and replicates the findings from Diekmann & Eagly (2000), while simultaneously showing changes in the division of labor mediate the relationship between time and gender stereotypes. Other evidence within the field substantiates these experimental findings (Garcia-Retamero et al., 2011; Lopez-Zafra & Garcia-Retamero, 2012). The dynamic nature of stereotypes has been observed across cultures, including Brazil, Chile, Germany, Spain, and Ghana (Bosak, Eagly, et al., 2018; Diekmann et al., 2005; López-Zafra et al., 2008; Wilde & Diekmann, 2005). Despite these findings, other research suggests that stereotypes are relatively stable over time (e.g., López-Sáez et al., 2008; Lueptow et al., 1997; Spence & Buckner, 2000) or have mixed evidence for the flexibility of stereotypes (Duehr & Bono, 2006; Eagly et al., 2019; Lueptow et al., 1997; Spence & Buckner, 2000). Overall, the field evidence on the changes and/or stability of gender stereotypes over time is mixed. Testing this implication of the model in the field is relatively difficult, given the number of uncontrollable factors that feed into gender stereotypes and their stability (Garcia-Retamero et al., 2011; Prentice & Carranza, 2003). Thus, future research that can address this lingering question in the field using causal inferences will be useful for actionable insights to reduce gender discrimination.

Generalizability of the proposed model

Future research should assess the generalizability of the arguments of this theory across cultures. Most of the research conducted in this area has been conducted in the United States, drawing from “WEIRD” populations (Henrich et al., 2010). Even though the division of labor is found across cultures (Eagly & Wood, 2012; Sanday, 1981; Wood & Eagly, 2002) and throughout history (see Blau et al., 2010 for overview), and there is similarity in gender stereotypes across cultures (Williams & Best, 1990), there is less evidence demonstrating how these feed into differential recognition and penalties for women across cultures. Additionally, to the extent that there are differences in the stereotypes people hold about different roles in society, it is important to understand how these cross-cultural differences affect gender segregation, and in turn, gender stereotypes. A research program dedicated to understanding how stereotypes about roles across cultures arise, especially in response to changes in gender segregation within said roles, and how these changes in turn affect gender stereotypes, is an important, albeit difficult, step to expand upon the current model.

Assessing whether actor-observer bias about agency and communion is exacerbated based on gender

Abele & Wojciszke (2014) argued that perceivers care more about others’ communion because it reflects others’ intentions. Based on this argument, women may be punished

more for failing to be communal than being excessively agentic because observers weigh communion more heavily than agency. On the other hand, it is possible that actively engaging in agentic behaviors is more noticeable to perceivers relative to a communion deficit, arguably because traits manifested at high levels might be more likely to come into perceiver's conscious awareness than traits manifested at relatively low levels. More research is needed to directly compare whether intensified proscriptions (i.e., high agency) or intensified prescriptions (i.e., low communion) elicit greater punishment. Relatedly, the pseudo actor-observer bias described in Abele & Wojciszke (2014) has important implications for the discrepancy between what women want to portray in the workplace and what others expect them to portray. Namely, women want to appear agentic (especially if they are aware of stereotypes that people think they are less competent), yet observers may weigh their communion more because they are women (especially in a counterstereotypical context). This can lead to a greater actor-observer bias when people are perceiving women rather than men, an area of research that has not yet been explored.

Summary and conclusion

Although women now have more “choice” in determining their labor market outcomes than ever before (Furchtgott-Roth & Stolba, 1999), this does not necessarily imply that their choices are not constrained within a discriminatory context. In many cases, discrimination and choice can coexist, as Crosby et al. (2004) clearly illustrate: “That a slave chooses to obey his master rather than to attempt to break away tells us little about the slave's preferences for slavery over freedom. That a gay serviceman chooses to remain ‘in the closet’ rather than be given a dishonorable discharge and deprived of his pension does not mean that the ‘don't ask, don't tell’ policy is nondiscriminatory.”

This paper aims to understand one of the core processes leading to discrimination: the division of labor both at home and work that feeds into gender stereotypes about agency and communion. Although previous research has emphasized the importance of stereotypes about agency and communion in driving gender discrimination (Heilman, 2012; Heilman & Caleo, 2018b; Welle & Heilman, 2007), the origins of these stereotypes were not addressed. Even though all of the paths described in the model are backed by strong causal evidence in the lab, the evidence for these paths within the field is scant and requires more exploration in future research. In sum, by providing evidence of the effects of the division of labor on gender stereotypes about agency and communion, the current paper attests to the importance of balancing gender roles as a means of reducing gender discrimination in the future.

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