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Gender Stereotypes

Naomi Ellemers

Faculty of Social Sciences, Utrecht University, 3508 TC Utrecht, Netherlands;
email: N.ellemers@uu.nl

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Abstract

There are many differences between men and women. To some extent, these are captured in the stereotypical images of these groups. Stereotypes about the way men and women think and behave are widely shared, suggesting a kernel of truth. However, stereotypical expectations not only reflect existing differences, but also impact the way men and women define themselves and are treated by others. This article reviews evidence on the nature and content of gender stereotypes and considers how these relate to gender differences in important life outcomes. Empirical studies show that gender stereotypes affect the way people attend to, interpret, and remember information about themselves and others. Considering the cognitive and motivational functions of gender stereotypes helps us understand their impact on implicit beliefs and communications about men and women. Knowledge of the literature on this subject can benefit the fair judgment of individuals in situations where gender stereotypes are likely to play a role.

Contents

1. DIFFERENT PEOPLE OR DIFFERENT WORLDS?

"Women are from Venus, men are from Mars" is a phrase that is often used to explain observed differences in the way women and men think, feel, and act. It conveys the inevitability of such differences by suggesting that men and women originate from planets that are millions of miles apart, implying that they are as inherently different as they would be if they were separate species.

There is no denying that there are differences between men and women in many life domains. The question, however, is to what extent these differences reflect the way men and women essentially *are*, and to what extent they result from how we *think* men and women differ from each other because of gender stereotypes. Identifying the nature and content of gender stereotypes clarifies the fact that they not only describe typical differences between men and women, but also prescribe what men and women should be and how they should behave in different life domains.

Even if men and women display similar characteristics, preferences, and ambitions, the different views and stereotypical expectations that we have of them place them in different worlds. Considering the origins and the implications of gender stereotypes helps us understand how these relate to gender differences in society. The research reviewed in this article reveals how gender stereotypes contribute to the development and perpetuation of such differences by leading people to treat men and women differently.

2. THE NATURE OF GENDER STEREOTYPES

Stereotypes reflect general expectations about members of particular social groups. However, even if there is an overall difference between these groups, not all individual exemplars in these groups will necessarily differ from each other. For instance, on average, men are taller than women, but we all know individual men and women for whom this is not true or for whom the difference is even reversed. Yet the stereotypical perception that a particular feature characterizes

membership of a specific group typically leads people to overemphasize differences between groups and underestimate variations within groups.

The tendency to perceive individuals as representatives of different social groups has been documented for a variety of groups in a range of contexts. Research has also revealed that the impact of such social categorization on the assignment of traits and features to members of particular groups can be quite fluid depending on the situation and the contrast with relevant comparison groups that seems most salient (Oakes et al. 1994). For instance, psychologists may seem quite creative when compared to physicists but appear much less creative when compared to artists. Additionally, there are many situations in which psychologists are not even evaluated as representatives of their profession simply because their qualifications are not relevant (e.g., in a sports contest) or not visible (e.g., when walking in the street).

However, such stereotype fluidity and context dependence are much less likely to emerge in relation to gender categorizations and gender stereotypes. Gender is considered a primary feature in person perception. Children and adults immediately and implicitly cluster unknown individuals by their gender, even when this categorization is not relevant to the situation and has no informational benefits (e.g., Bennett et al. 2000, Ito & Urland 2003). Furthermore, even though we all know examples of gender bending, gender continues to be seen as a binary categorization, in which we tend to compare men to women and women to men, anchoring any differences in terms of a contrast between them. Thus, gender categorizations are immediately detected, are chronically salient, seem relatively fixed, and are easily polarized. This contributes to the formation and persistence of gender stereotypes and reinforces perceptions of differences between men and women.

2.1. A Kernel of Truth?

Gender stereotypes reflect the primary importance we attach to task performance when judging men and to social relationships when considering women. Assertiveness and performance are seen as indicators of greater agency in men, and warmth and care for others are viewed as signs of greater communality in women (e.g., Kite et al. 2008). Differences in the emphasis placed on agency versus care are, indeed, visible in the way men and women behave and the life choices they make. Action tendencies and overconfidence in men result in more risky choices (e.g., in sexual behavior, alcohol and drug use, gambling, driving; Byrnes et al. 1999), whereas women are more cautious in these domains. Men and women also tend to work in different occupations and take on different caretaking roles. Social survey and census data show that, across 30 industrialized countries, there is a clear segregation according to gender in occupational roles: Certain occupations (such as policing) are dominated by men, whereas other occupations (such as nursing) are dominated by women (Jarman et al. 2012). Women across different countries and cultures spend more time on household activities than men do, regardless of their employment status. In 2015, an average difference of 50 minutes per day in the time spent on housework was observed between the male and female members of couples living in the United States (Bur. Labor Stat. 2016). Furthermore, even though both men and women are willing to incur personal costs to help others, they typically do this in different ways. For instance, men are more likely to engage in emergency rescues (displaying agency), whereas women are more inclined to volunteer for the Peace Corps (indicating communality) (Becker & Eagly 2004).

These observations of how men and women behave seem easily explained by referring to inherent biological differences between them (see also Ellemers 2014). Indeed, the larger physical strength of men and the ability of women to bear children predispose them for different types of activities and relate to testosterone and oxytocin levels, which can also impact behavior. Accordingly, these gender differences are often seen as deeply rooted in evolution and hard-wired in

the brain, reflecting the different roles and survival values of agentic versus caring behaviors for men and women living in hunter-gatherer societies. However, this account does not adequately represent current scientific insights.

For instance, recent evidence suggests that the division of gender roles in hunter-gatherer societies is much more egalitarian than is often assumed (Dyble et al. 2015). Furthermore, there is no one-to-one relationship between specific hormones and specific behaviors. For instance, although testosterone tends to be seen as a precursor of aggressive behavior, it can also elicit prosocial behavior and care (Van Honk et al. 2011). Hormonal changes not only depend on gender but are also triggered by important life events and situational experiences. Indeed, men and women show equal increases in oxytocin levels 6 months after the birth of their first child, which helps them accommodate the caring demands of the new situation (Gordon et al. 2010). Furthermore, there is no evidence that the brains of men and women are wired differently. Magnetic scans of over 1,400 human brains could not establish reliable differences in the nature and volume of the tissue (gray matter, cortex) or connectivity between areas in male and female brains (Joel et al. 2015; see also Fine 2013). Similarly, a review of hundreds of studies on cognitive performance (e.g., math ability), personality and social behaviors (e.g., leadership), and psychological well-being (e.g., academic self-esteem) reveals more similarities than differences between men and women (Hyde 2014). In fact, the studies cited above generally observe larger differences among individual women and individual men than between men and women as groups, providing evidence against the impact of biology as the main factor in creating behavioral gender differences.

Thus, if there is a kernel of truth underlying gender stereotypes, it is a tiny kernel and does not account for the far-reaching inferences we often make about essential differences between men and women (Bussey & Bandura 1999). Instead, research indicates that gender differences develop over the life span, due to the way boys and girls are raised and educated. In this process, biological differences set the stage for shared beliefs about the characteristic traits and abilities of women and men. But research evidence strongly indicates that the different societal roles and power positions of men as economic providers and women as homemakers—rather than biological distinctions between them—emphasize and enlarge initial differences. Social roles—over and above gender—have been found to impact hormonal regulation, self-regulation, and social regulation, which ultimately elicit different thoughts, feelings, and behaviors in men and women (Eagly & Wood 2013).

2.2. Helpful or Harmful?

Stereotypes in general and gender stereotypes in particular may be helpful when there is a need to make quick estimates of how unknown individuals are likely to behave or when trying to understand how large groups of people generally differ from each other. However, these very same functions make stereotypes much less helpful in estimating the exact potential or evaluating the defining characteristics of specific individuals. Yet this is what we often do when we rely on group-based expectations instead of judging individuals by their own merits. Gender stereotypes exaggerate the perceived implications of categorizing people by their gender and offer an oversimplified view of reality. They reinforce perceived boundaries between women and men and seemingly justify the symbolic and social implications of gender for role differentiation and social inequality. The broad awareness of gender stereotypes has far-reaching implications for those who rely on stereotypical expectations to evaluate others, as well as those who are exposed to these judgments. Gender stereotypes are shared by women and men, and their implications affect stereotype users and targets of both genders.

If we take the perspective of stereotype users, there is overwhelming research evidence that gender-stereotypical expectations influence the way we judge the abilities of women and men. That

is, both male and female evaluators tend to perceive and value the same performance differently depending on the gender of the individual who displayed this performance. This is evident from experimental studies where identical information about individual achievements is ascribed to either a woman or a man. Similar conclusions emerge from real-life observations, where diverging evaluations of men and women are traced back to objective performance criteria.

In educational contexts, gender stereotyping causes female students to be seen as less talented than male students in all areas of science (Leslie et al. 2015). For instance, in biology, male students are seen to excel even when their female classmates actually have higher grades (Grunspan et al. 2016). Experimental studies further reveal that an identical CV and application letter results in different perceived competence levels and job offers depending on whether the applicant is identified as John or Jennifer (Moss-Racusin et al. 2012). Imaginary differences in perceived skill have also been documented in the evaluation of creative products, such as the design of a house, depending on whether it carried the name of a male or female architect (Proudfoot et al. 2015).

Gender stereotypes not only influence the perceived potential of men and women when they are being selected for future careers, but also impact how the work actually performed by men and women is rated and valued. This was revealed in an experimental study where evaluations of teacher behaviors (e.g., promptness) during an online course were rated nearly a full point higher (at 4.35 instead of 3.55 on a five-point scale) when the instructor was identified by a male name instead of a female name (MacNell et al. 2015). These evaluative differences prompted by gender stereotypes can have important consequences for the career development and income levels of men and women, which can accumulate into substantial gender inequalities in the course of a life span. This has been documented many times, for instance, in census data comparing the wages of men and women entering the labor market with equal qualifications and employed in similar job types (Buffington et al. 2016).

Throughout their careers, women are less likely than men to be selected for promotions and prestigious positions. For instance, female professors of management were less likely than male professors to be awarded an endowed chair, even when there was no difference in their objective performance (academic publications, citations), nor in their personal circumstances at work (years into career, discipline) or at home (children) (Treviño et al. 2015). That this reflects a broader tendency to undervalue the professional performance of women is clearly visible in a meta-analysis of almost 100 empirical studies conducted among 378,850 employees in different industries (Joshi et al. 2015). Even considering the fact that the work performance of women tends to be evaluated less favorably than the performance of men, observed gender differences in rewards (salary, bonuses, promotions) are almost 14 times larger than these performance ratings would indicate.

These differences have been documented most extensively and most clearly in educational and work contexts, where reliance on gender stereotypes can be tested against objective performance differences. However, mirroring higher expectations of men in general ability and task performance domains, we see that women are evaluated more favorably than men in terms of warmth, empathy, and altruism—even when this is unfounded. For instance, in many countries, fathers have no or very limited access to parental leave and are less likely to be granted custody of their children after divorce, based on the assumption that men attach less importance to parenthood than women do or are less well equipped to take care of children than women are.

2.3. Can We Avoid Gender Stereotypes?

In light of the visible evidence that men as well as women can and do care for family members and friends and that women as well as men can display high levels of performance and ambition, it would seem silly to maintain that warmth typifies (all) women and competence characterizes (all) men.

Indeed, at present, many people would be reluctant to explicitly make such claims. Nevertheless, their private convictions and implicit beliefs still often rely on these stereotypical associations—without them realizing that this is the case. For instance, in computerized reaction time tasks, people more quickly and effortlessly connect names and faces of women to various aspects of family life, whereas names and faces of men come more easily to mind when thinking about professional careers (Greenwald & Banaji 1995). Indeed, across different cultures and contexts, even those who are reluctant to claim that women are less competent (i.e., do not endorse hostile sexist views) may still believe that women are particularly sensitive and need to be protected by men (so-called benevolent sexism; Glick et al. 2000).

People find it difficult to recognize that these more subtle and implicit beliefs may also reflect stereotypical views of women and men (Barreto & Ellemers 2015). Yet the gender stereotypes implicitly endorsed in this way can overrule more explicitly stated intentions to treat men and women equally. For instance, the admiration for stereotypical qualities of women that character-izes endorsement of benevolent sexist views is associated with acceptance of domestic violence against women (Glick et al. 2002) and a desire to restrict their rights to regulate pregnancy and reproduction (Huang et al. 2016). In couples that implicitly endorse gender stereotypes in this way, the needs of the male partner for intimacy are prioritized over the achievement ambitions of the female partner (Hammond & Overall 2015). In task contexts, benevolent and implicit—rather than more hostile and explicit—references to gender stereotypes cause women to downplay their achievements and ambitions and to emphasize their interpersonal skills (Barreto et al. 2010).

The power of implicit beliefs is also visible among parents, even those who claim that they show no difference in how they raise boys and girls. Those who implicitly make gender stereotypical associations are more likely to behave differently toward their sons than their daughters, for instance, when disciplining them (Endendijk et al. 2014). Thus, from a very early age, children are implicitly taught about gender stereotypes and reproduce them in their own beliefs and behaviors. For instance, the implicit assumption that math is not for girls is already observed among girls at age nine. This assumption becomes stronger in adolescence and better predicts academic achievement and enrollment preferences than girls' explicit views about gender and math (Steffens et al. 2010). Thus, even though explicit attitudes toward men and women have become more egalitarian over the years—and, in many countries, legislation is in place to enforce equal treatment—at the implicit level, gender stereotypes continue to shape our judgments and behaviors.

2.4. Gendered Expectations

Across different domains, gender stereotypes implicitly impact the expectations we have about the qualities, priorities, and needs of individual men and women, as well as the standards to which we hold them (see **Table 1**). The implicit impact of gender stereotypes is clearly visible in research revealing that relational criteria dominate the way we regard and evaluate women. Indeed, men as well as women are inclined to evaluate women primarily in terms of their appearance, rather than their accomplishments, whereas they do not evaluate men in this way (Fredrickson & Roberts 1997). As a result, looks dominate our judgment of the general worth of women, even in contexts where they should be irrelevant. This was the case for Ann Hopkins, a consultant who had clearly established her professional credentials and earning power. However, she was rated unfit for partnership in her firm because her behavior, make-up, and dress style were considered insufficiently feminine (see also Fiske et al. 1991). Research has revealed that this case represents a more systematic pattern in how women of different races and occupations are evaluated, which emerges regardless of how familiar or attractive they are. Unfortunately, women are perceived as less competent and are even considered less fully human when evaluators focus on their appearance

Table 1 Gender stereotypes and gendered expectations

Gender stereotypes	Male	Female
Stereotypical domain	Agency	Communality
Relevant behavior	Individual task performance	Care for others
Anticipated priorities	Work	Family
Perceived qualities	Competence	Warmth
Neglected needs	Interpersonal connection	Professional achievement

(Cikara et al. 2011). Such objectification effects do not diminish the perceived qualities of men, even when they are evaluated in terms of their appearance (Heflick et al. 2011).

Gender stereotypes also implicitly affect the way we search for romantic partners and the qualities we seek in them. When describing their ideal partner, men claim that they are attracted to women who are as intelligent as or more intelligent than they are. However, when actually interacting with a specific individual, they indicate being less romantically interested in women who seem to outsmart them (Park et al. 2015). Even if men do value a romantic partner who is assertive and independently minded, women tend to assume that men will be more attracted to them when they behave in a deferential, accommodating, and agreeable way (Hornsey et al. 2015). Thus, even for those who explicitly indicate that gender stereotypes should not matter, stereotypical preferences and beliefs implicitly shape the way men and women try to appear attractive and engage in romantic and work relationships.

Finally, parenthood also causes us to perceive men and women differently, with gender stereotypes implicitly guiding our judgment. When women become parents, we tend to assume that caring for their children will be their first priority and should make them less committed and ambitious at work. However, when men become fathers, this does not impact negatively on their perceived suitability as workers. These implicit expectations—even if unwarranted—impact the job and career opportunities that women and men receive. A survey of over 40,000 employees in 36 countries revealed that men and women reported similar issues in combining work and family roles (Lyness & Judiesch 2014). Yet managers see these issues as more of a problem for women than for men. For instance, in a study in which job applications were rated, mothers were approximately two times less likely to be recommended for the job than women without children, despite the fact that their stated qualifications were identical (Correll et al. 2007). Indeed, the lower perceived competence of mothers, in particular, causes them to be considered less suitable for promotion at work (Heilman & Okimoto 2008). Thus, different studies have revealed that professional women are seen as less competent after they become mothers, whereas this is not the case for men who become fathers. As a consequence, people are generally less willing to hire, promote, or educate working mothers than working fathers or workers without children (Cuddy et al. 2004).

Women are not the only ones to suffer from implicit gender stereotypes; men do as well, albeit in different ways. Men are underrepresented in occupational and family roles that emphasize communality and care, and gender stereotypes implicitly prevent their interest and inclusion in such roles (Croft et al. 2015). Yet the implicit assumption that relationships with others and interpersonal vulnerability are less relevant for men can have debilitating effects over time. These effects were illustrated in a meta-analysis of 78 samples surveying nearly 20,000 research participants. This survey revealed that men who were prompted by the masculine stereotype to be self-reliant and exert power over women suffered social costs, regardless of their race, age, or sexual orientation. They displayed all manner of unfavorable outcomes indicating negative social functioning and impaired mental health, including depression, loneliness, and substance abuse (Wong et al. 2017).

3. MAKING SENSE OF THE WORLD

We use stereotypes to make sense of the world. Our stereotypical expectations activate specific brain areas that help us identify, interpret, and remember the things we see, hear, and learn about others (Amodio 2014). By determining what captures our attention, what information seems valuable, and what should be remembered, stereotypes generally form a very strong and powerful filter through which we process objective information about men and women (e.g., Fiske & Taylor 2013). For the reasons discussed above, gender stereotypes perform all of these functions even more consistently and pervasively than stereotypes about other groups. This makes stereotypes resilient to change because information revealing that they no longer form an adequate shorthand to characterize the group is likely to be ignored, discounted, or forgotten (Wigboldus et al. 2003).

3.1. Cognitive Functions

Competence and warmth are basic dimensions in human perception. Research has found that they are primary features we assess when evaluating unknown others and are universally applicable dimensions that help us compare different groups in society. We use these dimensions to predict the most likely behavior of others, inferring their abilities from competence judgments and their intentions from perceived warmth (Fiske et al. 2002). The perception that men as a group are more competent and women as a group are more warm thus elicits the expectation that the abilities of men are likely to be superior to those of women and the intentions of women to be more benevolent than those of men. As indicated above, these stereotypical expectations may come to dominate the views we have of individual women and men, as they influence the way we respond to and process more specific information that might help us refine our judgment.

Individuals who clearly violate stereotypical expectations capture our attention, and stereotype-inconsistent information can dominate our judgment, as detailed in Section 3.3. However, in any situation where information about specific individuals is scarce or ambiguous, we tend to favor information that confirms the stereotype. For instance, we are more likely to attend to information that matches our stereotypical expectations. Event-related potentials in the brain (P600, a peak in electrical brain activity elicited by linguistic errors and anomalies) indicate that it is easier for people to capture and understand information about unknown others that is consistent with the gender stereotype (she is a nurse) than counter-stereotypical information (she is a mechanic) (Canal et al. 2015).

The impact that this has on people's judgments of others was demonstrated in a study where participants received equal amounts of information about the achievements and fame of men and women. Yet when asked to assess unknown men and women, participants relied on general gender stereotypical expectations to assign more fame to men than to women, instead of benefiting from the concrete information they had just received (Banaji & Greenwald 1995). At the same time, research participants were probably unaware of their failure to attend to information that was inconsistent with the gender stereotype, as this failure occurred irrespective of whether they explicitly agreed with gender stereotypes.

When processing information, we tend to consider observations that match our stereotypical expectations as more veridical, reliable, and informative than counter-stereotypical observations. This has been documented quite extensively in the attributions that are made for identical achievements of women and men in education or work (Swim & Sanna 1996). Performance successes or failures that seem to match stereotypical expectations are seen as accurately reflecting individual talents and abilities. However, accomplishments that are not in line with the stereotype tend to be discounted. These are attributed to external circumstances (e.g., help from others) or temporary conditions (e.g., an easy assignment, exceptional effort, or cheating). For instance, mathematics

teachers saw high test results of boys in the class as indicative of their ability for logical reasoning, whereas identical achievements of girls were ascribed to exceptional effort. Conversely, performance failures of boys were seen as indicating lack of effort, whereas they were considered diagnostic of lack of ability for logical reasoning in girls (Tiedemann 2000).

Similar mechanisms also make it less likely for women to get credited for their contribution to a team result or joint performance. For instance, in a series of experiments in which people were asked to evaluate the work of a mixed-sex dyad, the contribution of the woman in the dyad was devalued. That is, women were seen as being less likely than men to have contributed to or influenced the work that had been carried out by the dyad (Heilman & Haynes 2005). This has important implications for many work contexts where people work together as a team or have to share credit for joint performance or achievement of group targets.

Finally, stereotypes facilitate the recall of information that is stereotype consistent over stereotype-inconsistent information. Stereotypes are used as a memory retrieval cue, even for things that people remember about their own past behavior. This was revealed in research where high school students were asked about the marks they had received for different school subjects. Two studies showed that the recall of actual school results was biased by gender stereotypes. Female students who endorsed gender stereotypes consistently underestimated the marks that they had actually received for math and overestimated their school marks in language and arts subjects. Likewise, men who endorsed gender stereotypes recalled their math grades to be higher than they actually had been (Chatard et al. 2007). Judgments that are made about others are also impacted by the selective recall of achievements that match gender-stereotypical expectations, as seemed to be the case in a study of the remuneration of male and female executives of listed firms in the United Kingdom (Kulich et al. 2011). This study determined that the high performance and achievements of male executives were taken into account to determine their bonuses, whereas the performance of female executives seemed to be forgotten when decisions about bonus affordance were made.

All these different mechanisms work together, as gender stereotypes are used to attend to, organize, and store information about individual men and women. Because privilege is given to information that matches stereotypical expectations, the threshold for noticing, valuing, and retaining counter-stereotypical information is higher than that for information that matches gender stereotypes (see **Figure 1**).

3.2. Communication

In the case of groups about which many people have little to no knowledge, such as homeless people or migrants from faraway countries, it is relatively easy to understand why we rely on stereotypes to predict and understand the behaviors of individual group members. When we have no detailed knowledge of the group, lack first-hand experience with individual group members, and have little concrete evidence of their intentions and abilities, it makes sense to infer expectations about individuals from characteristics of the group. It also makes sense not to discard these group-based expectations on the basis of a single diverging experience, especially when the group is seen as a potential source of threat. It is better to be safe than sorry. But all these valid considerations fall away in the case of gender stereotypes. Most of us have intense and intimate connections with members of both gender groups, and interactions are mostly positive instead of aggressive (Radke et al. 2016). Plenty of information is available about the concrete qualities, desires, and achievements of individual men and women, and it is clear that men and women are not all the same. How, then, is it possible that group-based expectations materialize from all these individual experiences, and how are gender stereotypes communicated?
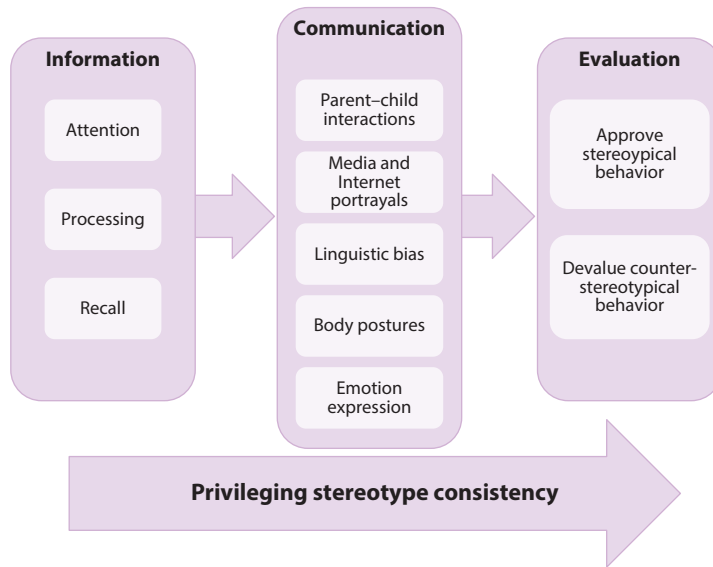
Information
- Attention
- Processing
- Recall

Communication
- Parent–child interactions
- Media and Internet portrayals
- Linguistic bias
- Body postures
- Emotion expression

Evaluation
- Approve stereoypical behavior
- Devalue counter-stereotypical behavior

Privileging stereotype consistency

Figure 1

Privileging stereotype consistency in how people deal with information, communicate with each other, and evaluate others.

This communication mostly happens implicitly, through the way we speak about and portray the activities, desires, and achievements of men and women. For instance, in the way they raise and educate their children, parents may implicitly teach them what (in)appropriate behaviors for women and men are. Even parents who may consciously avoid buying gender-specific toys and claim they treat their sons and daughters equally communicate these implicit expectations, for instance, when reading a picture book with their children. They convey what they consider to be appropriate behaviors and activities for boys and girls by making more positive comments about images of children engaging in gender-stereotypical activities (Endendijk et al. 2014).

Media representations also reinforce stereotypical expectations of men and women, for instance, by primarily showing men in expert roles and women in caregiving roles in advertisements, TV series, and news programs or by printing photographs portraying the face and upper torso of men while providing full-body images of women, which facilitates the tendency to evaluate women on the basis of their dress style and body shape (Matthews 2007). Likewise, media coverage of public figures focuses on the achievements of men, for instance, in sports or politics, while addressing the appearance or personal relationships of women. This happened, for instance, at the Wimbledon tennis tournament of 2016, when news reports elaborated on Serena Williams' tennis dress instead of her stellar play. Information provided on the Internet also conveys and reinforces gender stereotypes. For instance, Google was criticized because its image search algorithms almost exclusively come up with gender stereotypical representations for various occupations (such as doctors versus nurses) (Cohn 2015). These media and Internet portrayals are not without consequences. In fact, one review of research revealed that, over time, the gender stereotypes implicitly conveyed in this way impact the beliefs that girls develop about gender roles, their bodies, and sexual relationships (Ward & Harrison 2005). An experimental study further found that undergraduate students who were induced to play a video game as a sexualized female character showed diminished self-efficacy as a result of this experience (Behm-Morawitz & Mastro 2009).

The verbal accounts we provide and receive about the behaviors of others and ourselves also implicitly convey and reinforce gender-stereotypical expectations. The words we choose to describe specific achievements reflect the stereotypical attributions we tend to make. Experimental research shows that we use more abstract terms (such as adjectives) to describe behavior that matches stereotypical expectations. Conversely, when these same behaviors are displayed by someone for whom they are counter-stereotypical, more concrete terms (such as action verbs) are used (Maass 1999). To the person receiving such verbal messages (e.g., "he is smart" versus "she did well on the test"), the more abstract terms implicitly communicate a stable disposition or characteristic property of what the person is, whereas more concrete terms are seen to convey the situational and temporary nature of what the person does (Wigboldus et al. 2000). Such communications implicitly maintain gender stereotypes as an adequate representation of the group, even when recounting examples of counter-stereotypical behaviors.

Such linguistic biases can have far-reaching implications, as was revealed, for instance, by an analysis of 1,244 recommendation letters from 54 countries, submitted to support the grant applications of postdoctoral researchers in the geosciences. Across the board, female applicants were significantly less likely to be described as "excellent" by those who were trying to support them, regardless of whether the recommendations were made by men or women (Dutt et al. 2016). Likewise, recommendation letters for applicants for an academic faculty position were more likely to contain "standout" (excellent, outstanding, exceptional, unmatched) and "ability" (talent, genius, brilliant, gifted) words for male candidates, whereas "grindstone" words (hardworking, conscientious, dependable, thorough, dedicated) were chosen more often to praise the abilities and achievements of female candidates (Schmader et al. 2007). To perform well in many professional jobs and roles, both talent and dedication are needed. Yet evaluators may be implicitly prompted to prioritize perceived talent over demonstrated dedication, for instance, by the language used to ask for their judgments, as was revealed by an examination of 2,823 applications for an early career grant from the Dutch National Science Foundation. Female applicants received lower ratings than male applicants on forms containing gendered evaluation labels and were less likely to have their applications awarded, even though there was no difference in the perceived quality of the proposals they submitted (Van der Lee & Ellemers 2015).

Non-verbal communications, particularly body posture, may also implicitly convey and reinforce gender stereotypes. In public situations, men and women tend to adopt different body postures, with men displaying more expansive and open postures (arms and legs spread up or out, taking up physical space), whereas women are more likely to show closed and contractive postures (crossed arms and legs, squeezing in) (Cashdan 1998). Male and female dress styles (pants versus skirts), the differential body size of men and women, and childhood socialization about proper demeanor for girls and boys all contribute to these differences. The implicit activation of gender stereotypes also leads women to adopt more contractive body postures (De Lemus et al. 2012).

However, open and expansive body postures also relate to dominance and high power, whereas closed and contractive body postures indicate submission and low power. Such postures convey information to others but also affect the way people perceive and present themselves (Carney et al. 2010), as was illustrated by a study where participants were asked to take on specific body postures while preparing for a mock job interview. In this study, men and women who had adopted an expansive (versus contractive) posture before the start of the interview were perceived by others as more captivating and enthusiastic during the interview and were considered more hirable by their evaluators. In fact, their body language, rather than their verbal presentation, dominated these ratings (Cuddy et al. 2015b). Thus, the body postures typically shown by women—which are reinforced when gender stereotypes are implicitly activated—signal submissiveness and low

power to others as well as to themselves. This makes them behave less confidently and causes them to be considered less competent in a work context, unwittingly enacting gender stereotypes.

Finally, the emotions expressed by men and women also communicate and reinforce gender-stereotypical expectations. Research suggests that men and women tend to have similar emotional experiences. However, the way they communicate about their emotions is different, with men expressing all negative emotions as anger—an emotion related to action and agency—and women more likely to indicate sadness—which is associated with lack of control over the situation (Plant et al. 2000). Likewise, gender stereotypes guide the way we recognize and label emotions expressed by others. Research shows that parents reading a picture book implicitly teach their children to label emotions in gender-stereotypical ways by referring to gender-neutral drawings of a sad child as female, while assuming that an angry child is male (Van der Pol et al. 2015). Thus, the ways we express, interpret, and communicate about emotional experiences are modified by gender stereotypes.

3.3. Stereotype Disconfirmation

Individuals who clearly disconfirm stereotypical expectations tend to be devalued. We decide that they are not representative for their gender group rather than revising stereotypical expectations. This happens, for instance, for women working in male-dominated jobs, who are seen as unfeminine (Badgett & Folbre 2003), and for professional women, who are seen as members of a specific subtype of women that is high in competence but low in warmth—just like men (Fiske et al. 2002). At the same time, flamboyant gay men are seen as low in competence and high in warmth—just like women (Clausell & Fiske 2005).

Gender stereotypes thus not only capture how we expect men and women to behave, but also communicate how we think they *should* behave (Prentice & Carranza 2002). Indeed, women who behave in line with the stereotype are evaluated more positively than women who seem to challenge gender-stereotypical expectations (Eagly & Mladinic 1994). In fact, men and women agree that gender-stereotypical views indicate both that men are more competent than women and that they *ought* to be more competent. Likewise, these views convey the idea not only that women tend to be more communal and warm than men, but also that this is the way they *should* be (Ramos et al. 2017). Thus, gender stereotypes also provide people with shifting standards against which the qualities and achievements of men and women are evaluated (Biernat & Manis 1994). As a result, men who behave modestly in a professional context violate expectations of the masculine stereotype and are disliked because they are seen as weak and insecure (Moss-Racusin et al. 2010). Conversely, women who display agentic behavior (by being competent, ambitious, and competitive) seem insufficiently nice and are disliked and devalued as a result (Rudman & Phelan 2008).

This places women in leadership roles in a difficult position because, in different countries across the world, the type of behavior that is required for professional success seems incompatible with how women are expected to behave on the basis of their gender (Schein et al. 1996). Indeed, women in supervisory roles are less likely to elicit threat responses and competitiveness in their male subordinates when they show their leadership in a feminine way by being an efficient project manager, rather than displaying ambition and asserting their authority (Netchaeva et al. 2015, Williams & Tiedens 2016).

The incompatible requirements for female leadership also play out more implicitly, for instance, in preferences for voice pitch. Women, on average, have higher-pitched voices than men. However, both men and women prefer male and female leaders with lower voices (Klofstad et al. 2012), even in stereotypically feminine domains (Anderson & Klofstad 2012). Having a deep voice apparently

helps people to be successful in leadership roles. For instance, analysis of natural speech performed by almost 800 chief executive officers (CEOs) at public companies revealed that those with deeper voices managed larger companies, made more money, and held longer tenure (Mayew et al. 2013). For women, however, there is a cost to lowering their voices to be more effective leaders. Even though women tend to be perceived as more dominant when they have lower voices (Borkowska & Pawlowski 2011), they are also considered less attractive by men (Feinberg et al. 2008).

When professional and life roles do not fit gender stereotypical expectations, this inconsistency impacts perceived self-efficacy and restricts life choices for both women and men. The female stereotype restricts the professional choices of women, as beliefs about the characteristic behaviors of a good mother or a good worker dominate work–family decisions (Williams et al. 2016). These beliefs overrule rational arguments and clear business cases documenting the benefits of equal treatment of men and women. For instance, when women start earning more money than their husbands, they increase (rather than decrease) the amount of time they invest in household work, presumably to avoid violating stereotypical expectations of a good wife (Bittman et al. 2003). In other contexts, too, women provide unpaid care to comply with stereotypical norms—not because they are intrinsically motivated to do so—which makes them less available for paid work and causes them economic disadvantage (Folbre 2012).

Likewise, the male stereotype discourages men from taking on caring roles in the family because others do not value these roles in men. Experimental research reveals that fathers who give up employment and sacrifice financial security to care for their children are devalued, whereas mothers who make identical choices are highly approved (Riggs 1997). In reality, stay-at-home and employed fathers do not differ from each other in terms of the masculine and feminine features that characterize them; they only have different attitudes toward the division of gender roles (Fischer & Anderson 2012). Yet a series of studies has indicated that men and women express less liking for stay-at-home fathers than for employed fathers and also think that stay-at-home fathers are not regarded very highly by others (Brescoll & Uhlmann 2005).

4. RESILIENCE TO CHANGE

Due to their prescriptive nature—elucidated above—gender stereotypes are not neutral a priori expectations. Instead, they prescribe what a good group member is like and, thus, tap into the very basic desire of individuals to be respected and included as a proper and good group member (Ellemers & Jetten 2013). The easiest way to achieve this goal is to embrace and enact behaviors and preferences that are prototypical for the group. Thus, gender stereotypes motivate men and women to adapt their self-views, behavioral expressions, and life choices to what seems appropriate for their group and in this sense function as self-fulfilling prophecies (Ridgeway & Smith-Lovin 1999).

Gender stereotypes help us to perform well in domains that seem gender appropriate and prevent us from excelling in counter-stereotypical domains, such as mathematics for women and social sensitivity for men (Koenig & Eagly 2005). The undermining effects of stereotype threat (versus stereotype lift) have been documented in many domains, ranging from academic to sports performance. Different mechanisms have been found to contribute to this, and these mechanisms occur at least partly outside of people's awareness (Schmader et al. 2008). Physiological stress at the prospect of having to perform in a counter-stereotypical domain impairs the ability of individuals to process information in the prefrontal cortex. Furthermore, under these circumstances, individuals are prevented from fully attending to the task because part of their brain is occupied with monitoring their performance (Krendl et al. 2008) or social acceptance (Ståhl et al. 2012b). Finally, extra effort is needed to suppress negative thoughts and emotions. All these mechanisms

take up cognitive resources needed to perform well on the task (Schmader & Johns 2003). Even though individuals may be motivated to invest the additional effort needed to compensate for these cognitive and emotional demands, they are unable to keep this up, causing their performance to suffer over time (Ståhl et al. 2012a).

4.1. The Motivation to Be a Good Group Member

The impairment of people's performance in counter-stereotypical domains may seem a purely cognitive problem, but it is also driven by motivational concerns. That is, all these debilitating effects of gender stereotypes on task performance emerge most strongly for individuals who attach high importance to their gender identity and desire to behave as a good group member (Schmader 2002). Indeed, individuals who are strongly identified with their gender group find it highly threatening to be seen as a nonprototypical group member (Schmitt & Branscombe 2001). As a result, men entering a stereotypically masculine occupation (e.g., marine commando recruits, surgical trainees) were found to be less motivated and more likely to abandon their professional ambitions when they considered themselves to be less masculine than their coworkers (Peters et al. 2015). Likewise, lack of fit of women's occupational choices with the gender stereotype makes individuals less committed and ambitious at work (Peters et al. 2012). Thus, the motivation to be a good group member and accommodate gendered expectations places individuals in a self-defeating cycle, causing them to underperform, lose their self-confidence, and indicate lack of engagement in domains that do not match the stereotype (Derks et al. 2007).

4.2. The Motivation to Believe the World Is Just

Motivational processes not only make individuals conform to gender stereotypes, but also make people believe in these stereotypes as accurately indicating the abilities and motives of individual women and men. That is, even if we can see that men and women have different social roles and outcomes as a group, we strongly believe that this is the result of individual differences in preferences and abilities or reflects biological differences, as indicated above. This illusion of meritocracy is so strong that it prevents us from seeking, processing, or accepting evidence indicating that differences in societal outcomes may stem from gender stereotyping (Barreto & Ellemers 2015). As long as people perceive gender-stereotypical task preferences and life choices—including their own—as individual choices, they can maintain the conviction that men and women have equal opportunities and can make counter-stereotypical choices if they want to do so. Indeed, a study of stay-at-home mothers established that individuals who viewed their current situation as resulting from personal choice were less inclined to perceive workplace barriers to be related to gender (Stephens & Levine 2011). In general, the belief that social differences stem from individual choices masks the possibility that members of different groups are not treated equally and discourages attempts at relieving such inequality. Instead, it perpetuates the conviction that gender stereotypes offer a veridical and accurate picture of what men and women are and the societal roles they freely choose to fulfill.

The motivation to see the world as a just place where everyone receives the outcomes they deserve also makes people ascribe more valued features to groups that already have high status (Ridgeway 2001). Thus, we see that gender stereotypes are slightly adapted across situations, so that the male stereotype consistently represents characteristics that are the most valued in that context. For instance, it was found that the degree to which individualism versus collectivism is nationally valued predicts the likelihood that individualism versus collectivism is associated with the stereotype of men (Cuddy et al. 2015a).

4.3. The Motivation to Act Effectively

Finally, stereotypes motivate people to accommodate to existing expectations because challenging the status quo is incompatible with the behavior prescribed by the stereotype, particularly for women. On the one hand, the stereotype implies that women are expected to care for and help each other instead of trying to stand out. This does not match the requirements of many work and life contexts, where individuals are expected to compete with each other for the best opportunities or outcomes. In these contexts, the ambition and competitive behavior that is considered quite acceptable or even desirable for men is seen as inappropriate and unfeminine when displayed by women (Faniko et al. 2016). This poses an invisible hurdle for women who try to get ahead or improve their situation.

When, on the other hand, women express resentment at unequal outcomes or point out that they are disadvantaged by gender-stereotypical expectations, they are seen as complainers (Kaiser & Miller 2001). As long as the pervasive impact of gender stereotypes is not acknowledged, those who speak up are disliked for acting inappropriately, even by other women (Garcia et al. 2010). Indeed, for men, expressions of anger can instill respect and enhance their perceived standing. For women, expressing anger reduces their perceived competence, results in lower wages, and undermines their status in the workplace (Brescoll & Uhlmann 2008). These social costs of expressing anger have far-reaching implications, as they also prevent women from contesting current gender inequalities by engaging in collective action—for which the expression of anger is an important requirement (Radke et al. 2016).

These different motivational mechanisms all implicitly contribute to the reproduction of stereotypes and maintenance of the status quo. The motivations to justify, explain, and reproduce gender stereotypes work slightly differently depending on whether the individual is afforded privilege or disadvantage as a result (see **Figure 2**). In the next sections, I elaborate on each of these perspectives in turn.
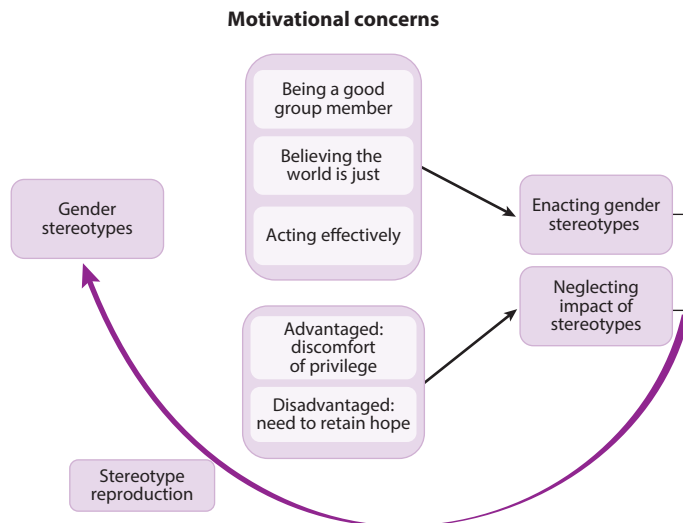
Figure 2

Motivational mechanisms that contribute to the reproduction of gender stereotypes.

4.4. The Discomfort of Privilege

Most individuals find themselves, at least sometimes, in situations where gender stereotypes would give them the benefit of the doubt. This is the case, for instance, for men who seek career advancement at work or for women who hope to be awarded custody of their children after divorce. At the same time, the awareness that stereotypes can be a source of advantage for them causes people discomfort. It is much more satisfying to maintain the conviction that one's successes in life reflect personal character (leadership ability) or individual effort (time invested in childcare). Believing that there is a contingency between individual merit and societal outcomes protects people from feeling guilt about any undeserved privilege they might enjoy and from shame at being unable to provide similar opportunities for others.

The discomfort of privilege has been documented in empirical research. The awareness that groups have unequal chances in society raises emotional responses indicating a focus on prevention and resistance toward reparation measures among those who benefit from current arrangements (Ellemers et al. 2010). Other studies have documented increases in blood pressure and heart rate when individuals are confronted with the possibility that their group will lose its privileged position. For instance, men showed a cardiovascular threat response when they were asked to discuss gender inequality and changing gender relations in society with women (Scheepers et al. 2009).

The reluctance to acknowledge unwarranted privilege also explains why group-based differences tend to be downplayed and denied—particularly by those who benefit from these differences. This tendency is visible, for instance, in responses to empirical evidence that gender stereotypes play a role in explaining the underrepresentation of women in science, technology, engineering, and mathematics (STEM) fields. Studies consistently show that men are more reluctant than women to accept the validity of data showing this role, especially when they work in STEM fields themselves (Handley et al. 2015, Moss-Racusin et al. 2015). These results resonate with the more general phenomenon that feelings of collective guilt at having enjoyed group-based privilege induce denial more easily than inviting compensation efforts, especially among individuals who are strongly identified with their group. In fact, experimental studies have revealed that men may act out against women when the privilege of their group is called into question. For instance, a set of studies established that highly identified men who think that the legitimacy, value, or distinctiveness of their male identity is under threat are more inclined to harass women by exposing them to pornographic images (Maass et al. 2003).

4.5. The Need to Retain Hope

It may seem obvious that those who benefit from group-based differences are motivated to retain them. However, those who suffer disadvantage due to their group membership also contribute to maintaining the status quo. Why would this be the case? Individuals who have the ambition to carve out their own life choices would be discouraged by realizing that gender stereotypes will limit their options and curb their ambitions. For them, it is threatening to accept that the mere reality of their gender—which they cannot change—would determine important outcomes in life, regardless of their individual achievements or the personal sacrifices they are willing to make.

This is why even those who may be disadvantaged by gender-stereotypical thinking resist the notion that gender stereotypes impact the way they are evaluated by others: Not acknowledging group-based disadvantage offers them a way to retain their hope. For instance, women prefer not to seek evidence that gender stereotypes may reduce their chances of being offered an attractive job (Stroebe et al. 2010). Indeed, countering the common belief that people easily claim discrimination to mask personal failures, evidence from several studies reveals that there is a general reluctance to make such claims, which are psychologically and socially costly (for a review, see Barreto et al.

2008). Thinking of gender discrimination in the past motivates men to display their best abilities. However, it was found to reduce women's perceived chances of individual success in the present, undermine their ability to perform well, and prevent them from taking advantage of opportunities offered (Barreto et al. 2004).

Women who are successful in masculine job types and functions often claim that they were not held back by their gender, and others willingly accept the validity of these claims. Yet these women (labeled queen bees) tend to demonstrate their suitability for such jobs by emphasizing how different they are from other women. Thus, their strategy to avoid being held back by gender stereotypes leads them to put down other women who make different life choices. This has been documented in studies for a variety of job types and work contexts, ranging from academia to the police force (Derks et al. 2016, Faniko et al. 2017). Although this may be a viable strategy for individuals to maintain hope that success is feasible in a masculine work environment, it also reinforces the notion that stereotypically masculine properties and behaviors are more important at work.

A different strategy is followed by those who emphasize the added value of gender-stereotypical contributions to enhance advancement opportunities for women. This has been documented in research on the glass cliff effect (Ryan & Haslam 2007), where women are selected for positions of leadership due to their allegedly superior social emotional skills. Although this may seem a productive way to induce more gender equity, research has revealed that it also places women in very risky positions, where they lack the necessary material resources and interpersonal support to do well (Ellemers et al. 2012).

The common thread connecting these different strategies is that they help individuals retain hope that they will not be restricted by gender stereotypes in reaching important life goals and outcomes. Yet, to the extent that this causes them to neglect the impact of gendered expectations on the way they formulate their ambitions and are viewed by others, these strategies also lead them to reproduce the very stereotypes they try to escape (Ellemers & Barreto 2015). Again, these mechanisms that contribute to maintaining the status quo have been documented most extensively for women who seek advancement in male-dominated professions or job types. But they are likely to be just as valid for men trying to function in female-dominated contexts. In general, when individuals aiming to disconfirm the validity of gendered expectations are not seen as proper group members by themselves or by others, stereotypical expectations of the gender group will not change. Moreover, if gendered abilities or achievements do not contribute to success in counterstereotypical domains, then the ambitions of other individuals are curbed. As long as people fail to recognize that gender stereotypes—rather than individual merits and choices—lie at the root of such differences, change is very unlikely.

5. HOW WE CAN BENEFIT FROM THIS KNOWLEDGE

Gender stereotypes not only affect the way we perceive others and the opportunities we afford them, but also impact our conceptions of self, the demeanor we see as desirable, the life ambitions we consider appropriate, and the outcomes we value. These effects may harm our resolve to engage with domains we find personally valuable, undermine our ability to perform well, and impair our life outcomes. Paradoxically, then, the firm belief that gender stereotypes accurately reflect the achievements and priorities of most men and women prevents individuals from displaying their unique abilities and acting in line with their personal preferences.

How can we benefit from the knowledge gained about the origins, nature, and functions of gender stereotypes? To begin with, it is important to realize that they contain a kernel of truth that is tiny but self-fulfilling, because gendered expectations have a strong impact on the way we perceive and enact gender differences. Gender stereotypes reflect gendered role relations in

society: Only when substantial numbers of men and women can be observed in a broader range of roles will our stereotypical associations change. This change can be achieved in different ways:

1. Acknowledge the pervasive nature and the cognitive and motivational functions of gender stereotypes. This constitutes an important step in combating their negative side effects. Accepting that we are all subject to gendered expectations and that these may bias our judgments of specific individuals makes it possible to identify and correct for such biases. Indeed, because gender stereotypes are so ubiquitous and implicit, we cannot rely on explicit intentions to consider individual merit alone. Outsourcing the responsibility for equal treatment to a diversity office can reduce vigilance against implicit bias and invite unequal treatment (Kaiser et al. 2013).

2. Lift the burden of proof from those who may be disadvantaged. This makes us less dependent on their ability to recognize unequal treatment and their willingness to complain. In fact, the identification of whether and how gender stereotypes may bias individual evaluations and result in unequal opportunities is more powerful and effective when it is done by those who are advantaged (Drury & Kaiser 2014). For instance, fathers who take an equal part in household duties cause their daughters to express counter-stereotypical preferences and ambitions (Croft et al. 2014).

3. Educate people about the descriptive and prescriptive nature of stereotypes. Knowledge of the pervasiveness and implicit effects of stereotypes releases people from the conviction that all gender differences are biologically determined and hard-wired. Such knowledge enables them to recognize the implicit effects that gender stereotypes may have for themselves and others. Sharing these experiences helps them to develop concrete strategies to deal with gendered expectations (Williams & Dempsey 2014).

4. Support employees in reconciling stereotypical male and female role expectations regarding work and family demands. Male and female workers experience stress when work and family roles seem incompatible. However, when supervisors at work acknowledge both types of demands and facilitate the possibility of combining work and family roles, this benefits the work satisfaction, work performance, and indicators of physical health of men and women over time (Van Steenbergen & Ellemers 2009).

5. Reconsider and re-evaluate the nature of different social roles and job types. The unidimensional distinction between masculine roles that rely mainly on competition and achievement and feminine roles that require empathy and care does not do justice to contemporary requirements in social interactions or in the workplace. People cannot function well in the modern workplace without emotional intelligence and interpersonal skills. Likewise, a broader range of task abilities and achievements is needed for families to function well in a globalized and digitalized world. The inclusion of a larger variety of individuals with a more diverse set of skills and abilities will benefit individual as well as collective outcomes. Clarifying how different functions and job types require masculine as well as feminine skill sets raises the interest of both men and women in performing in these roles (Diekman et al. 2017).

Gender stereotypes prevent women and men from equally sharing the care for children and family members and from equally benefiting from the interpersonal connections made through these activities. Gender stereotypes prevent women with successful careers from finding a romantic partner and men without employment from feeling valued. They cause us to underestimate the emotional burden of care functions for women and the physical burden of strenuous labor for men. This is not only costly for the individuals involved but also for society, as it impacts the psychological and physical well-being of individuals, the resilience of families, and the long-term availability and contributions of workers in the labor market. We are only human and have to

accept that we are subject to stereotypical thinking and gendered expectations. Accepting our fallibility in this way, rather than denying that gender stereotypes play a role while implicitly reproducing them, makes it easier to correct for any undesired outcomes that may result.

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