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Gender

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Gender is a salient social category used to make sense of others and ourselves. This chapter provides a synthesis of current social psychological research, with connections to relevant work in related fields, on gender and gender-based disparities. This summary integrates consideration of diverse and intersecting gender identities, as well as changing views of gender across time and culture. The chapter consists of six main sections. The first section describes how gender is a social category that is unique in several ways and offers definitions that distinguish between gender and related constructs. The second section continues with a review of research on gender differences and similarities and a consideration of biological and historical perspectives that contribute to present-day gender segregation into different roles, occupations, and positions of status. The third section reviews how these disparities are encoded into cultural stereotypes that both describe and justify a gendered status hierarchy. The fourth section discusses how these gender stereotypes, as cultural constructs, can be internalized into the self, depending in part on the early development of one's own gender identity. The fifth section then reviews research on gender-based prejudice, with a specific focus on how prejudice maintains gender conformity and the degree to which sexism varies across time and culture. The sixth section summarizes how research on gender stereotyping and prejudice informs our understanding of how bias and discrimination unfold through interpersonal processes and can be embedded in systems and environments. Finally, the seventh section concludes with a consideration of how social psychological research informs and is informed by ongoing societal efforts toward gender equality and the need for broad cross-gender support toward these efforts.

I. GENDER AS A CENTRAL SOCIAL CONSTRUCT

The United Nations estimates that 385,000 babies are born every day (The World Counts, 2023), and one of the first pieces of information most people want to know about newborns is their sex. People are so certain that this information provides them with insight into who these new humans are or will be that many parents choose to learn their baby's sex before birth (Kooper et al., 2012; Samuel, 2015). In this handbook, other chapters will discuss how social identities more generally shape social perception, self-definition, and intergroup conflict (e.g., Bodenhausen & Cheryan, 2025; Chen & Critcher, 2025; Ellemers & Scheepers, 2025). This chapter focuses specifically on the social psychology of gender.

Gender deserves focused attention because it is an identity that is unique in several ways. First, along with age, gender (and its links to sex) is thought to have evolutionary significance that is universal across culture given its relevance to human sexuality and reproduction (S. T. Fiske, 2017; Sidanius & Pratto, 1999). Second, evidence suggests that gender is a fundamental aspect of social perception that underlies a basic tendency to see even non-social aspects of the world in gender-binary ways (A. E. Martin & Slepian, 2020). Third, unlike many other social groups, gender groups are intimately interdependent with one another and yet still embedded in social hierarchies. Finally, because of each of these factors above, one's gender identity often provides a deeply meaningful way to construct, understand, and navigate experiences throughout one's life. And yet because gender is often embedded in social systems, normative conceptions of what it means to be a man or a woman create a series of affordances and constraints to the options and opportunities people have.

Defining Terms

Before delving into research on gender, clear definitions that distinguish between gender and related constructs are important. *Assigned sex* is the term used to identify a person as female, male, or intersex based on the allosomes underlying the characteristics of one's reproductive anatomy. Although the majority of humans (and other mammals) have XX (female) or XY (male) allosomes, 0.018% to 1.7% of the population are intersex, or due to other conditions develop nondimorphic sex organs or inconsistent phenotypical and chromosomal sex (Fausto-Sterling, 2000; Sax, 2002).

Distinct from a person's assigned sex, gender refers to the characteristics of a person that are socially or culturally constructed such as for example behaviors, roles, and expressions associated with being a girl/woman, boy/man, or gender diverse identity. Gender identity refers to one's own psychological sense of oneself as a girl/woman, boy/man, nonbinary, gender-queer, or gender-fluid person. Nonbinary/gender-queer individuals do not classify their identity in conventional binary gender distinctions whereas gender-fluid individuals' identity shifts between gender binary labels. One's assigned sex and gender aligns for those who are cisgender but does not for those who are, for example, transgender.

News headlines that tout a sharp rise in transgender identification give the impression of culture-wide changes in gender identity (Ghorayshi, 2022). However, data are more consistent with an interpretation that gender-diverse people feel increasingly permitted to authentically express themselves in some cultures. For example, data from the United States suggests that 0.5% of adults (about 1.3 million people) identify as transgender, with rates being higher but still low in absolute terms among teenagers (1.4%; Herman et al., 2022).

Finally, *gender expression* is the term that describes the suite of behaviors and preferences falling along different continuous dimensions that are often associated with a given gender. Researchers originally labeled these dimensions femininity and masculinity but the labels communion and agency are increasingly preferred. Although these dimensions of gender expression are often associated with a given gender, considerable variability exists between as well as within gender (Carothers & Reis, 2013).

Gender Diverse Identities

This chapter focuses on gender as a social construct that people use, in part, to define themselves and others. Although the psychological and developmental aspects of transgender and nonbinary gender identities are increasingly investigated (Morgenroth & Ryan, 2018), the vast majority of social psychological research on gender concerns the experiences of cisgender people, as well as social constraints placed by gender binary thinking and associated gender stereotypes. As such, much of this chapter will summarize research on gender through a binary lens. In fact, the social psychological processes that categorize and stereotype others based on sex and gender contribute to an overreliance on thinking about the self and others in gender binary terms.

Throughout this chapter, the term gender is used to discuss variation based on the categorization of self and others as a woman/girl or man/boy. As categories of assigned sex, the terms male and female are used when discussing research that is explicitly about biological distinctions, evolutionary or comparative evidence, or broader categories that include human and non-human animals. When possible, this chapter discusses the implications of sex and gender research for those who identify as transgender or nonbinary.

Similarly, when available, this chapter reviews research that considers gender through intersectional, cross-temporal, and cross-cultural perspectives. Considering these perspectives is crucial as many traditional gender stereotypes apply most strongly to White women and men, with women and men of color sometimes facing other types of gender-based biases. Furthermore, evidence points to changes in people's endorsement of gender stereotypes and prejudice across time and culture. At the same time, several patterns of gender segregation persist and are sometimes even stronger in more economically developed and gender-equal countries.

II. GENDER DIFFERENCES AND SIMILARITIES

How Different Are Women And Men?

Gender is a key defining feature of identity, in part, because scholars and laypeople alike have long been convinced that men and women are fundamentally different. As early as 400 years BCE, the Greek philosopher Aristotle proclaimed in his work Politics that "as regards the sexes, the male is by nature superior and the female inferior, the male ruler and the female subject." About a century ago, Geddes and Thompson (1890) explained that men's superiority to women, "was based firmly upon anabolic-catabolic biology which could not be reversed." More recently, Simon Baron-Cohen (2010, p. 1) has suggested that "The female brain is predominantly hard-wired for empathy. The male brain is predominantly hard-wired for understanding and building systems."

These persistent beliefs assert that men and women are not only different, but also that men are superior, and that these differences are grounded in biologically immutable roots. And yet, psychological evidence often calls into question the universality, stability, and strength of many specific differences. The past five decades of psychological research provide us with an historically unique opportunity to measure, quantify, and synthesize data on psychological similarities and differences based on sex or gender. This section reviews evidence that women and men are similar in many ways, but also different in some. Scholars in the field continue to discuss and debate the origins, magnitude, and implications of those differences.

Gender Similarities In General

In response to ongoing debates over the magnitude of gender differences and their origins, Hyde advanced the gender similarities hypothesis (Hyde, 2005, 2014). According to this hypothesis, women and men at a fundamental level are more similar than different on the vast majority of trait and ability measures. Summarizing evidence across 106 meta-analyses with data from over 12 million participants, Zell and colleagues (2015) concluded that the absolute difference between men and women on all phenomena studied thus far is about one-fifth of a standard deviation (d = .21) with the majority (86%) of effects being either small or very small ($d \leq .35$). In general, the size of this overall gender difference estimate did not vary by culture, time, or age.

The gender similarities hypothesis and the empirical data to support it suggests that there are many more similarities than differences between men and women. That said, the gender differences that do exist can have significant implications for women's and men's outcomes in life and thus identifying what those differences are, what explains them, and whether they are malleable remains an important endeavor in the field. Zell and colleagues' (2015) meta-synthesis identified several areas that revealed moderate to large effect sizes. The largest difference was found on trait dimensions developed and used to capture personality differences explicitly due to gender, that is, masculine versus feminine traits (d = .73). There are other effects where men score higher such as mental rotation ability (d = .57), preferencing physical attributes in mates (d = .53), aggression (d = .45), and confidence in physical abilities (d = .40). On other dimensions, women score higher, such as on reactions to noxious stimulation (d = .56), peer attachment (d = .51), people versus things interest (d = .49), and film-induced fear (d = .41).

Are these differences so large because men's and women's personality profiles are so different, or has research tautologically defined gendered personality as those traits where differences can be measured? As noted by Eagly and Revelle (2022), any measure that selects and aggregates items that are known to show gender differences will yield effect sizes that are larger than the average effect size of those individual items. Thus, when researchers have the goal to specifically describe known differences, the resulting measures are likely to yield larger effect sizes. On that topic, the next subsection turns to a closer examination of gender differences in the two dimensions that were once called masculinity and femininity and are increasingly labeled agency and communion, respectively.

Gender Differences In Agency And Communion

Historical approaches

Social psychologists have long been interested in documenting and understanding key differences based on gender. The original goal was to validate self-report measures to characterize gender differences in personality. Using a single dimension with the two endpoints defined as femininity and masculinity, Terman and Miles (1936) identified traits and preferences that were endorsed differently by girls and boys. A preference for charades, hopscotch, and jump rope indicated femininity because girls had a greater preference for these activities in the 1930s, whereas marbles, kites, and bicycles indicated masculinity because boys had a greater preference for these (Terman & Miles, 1936).

Later approaches disentangled dimensions of masculinity and femininity, positing two orthogonal scales that allowed people to be high or low on one or both dimensions (Bem, 1974; Spence & Helmreich, 1978; see Eagly & Wood, 2017 for a review). Bem's influential *Sex Roles Inventory* (1974) was the first to do this and to move toward measuring traits rather than activities. By measuring masculinity and femininity as orthogonal dimensions, Bem's scale also allowed for the identification of people who are androgynous, that is, who endorse both masculine and feminine qualities. A few years later, Spence and Helmreich (1978) created the *Personal Attributes Questionnaire*, which included several methodological refinements, and renamed these dimensions instrumentalism and expressivism, to distinguish them conceptually from gender.

Modern frameworks

In modern scholarship, researchers have realized that the two dimensions underlying gender differences in personality are not inherently gendered. Rather, the same two dimensions repeatedly emerge in the study of individual and cultural differences and social perception more broadly. These two dimensions are assigned various names: agency/communion (Abele & Wojciszke, 2007), interdependence/independence (Markus & Kitayama, 1991), and competence/warmth (S. T. Fiske, 2018; Yzerbyt, 2018). Most recently, in a theoretical synthesis, Abele and colleagues (2021) advocated for naming them vertical and horizontal dimensions, where the vertical dimension captures a focus on asserting one's self-interest (getting ahead), and the horizontal dimension captures a focus on attending to and fostering others' interests and well-being (getting along). This two-dimensional approach to social perception (of selves, others, and groups) is paralleled by other theories of two-dimensional variability in cultures (Markus & Kitayama, 1991) and personality (Saucier, 2009). In this review, the terms agency and communion are prefered as these are the labels most commonly used in gender research.

With this modern framework in hand for understanding gender differences, to what degree do men and women differ in agency and communion? Recently, a meta-analysis aggregated data on this question from nearly 1,000 studies with over 250,000 participants collected across five decades (Hsu et al., 2021). Results showed evidence of overall gender differences in people's self-perceptions. Men rated themselves as higher in agency (g = 0.40), whereas women rated themselves as higher in communion (g = -0.56). The magnitude of these differences is smaller than found on explicitly-gendered measures of masculinity-femininity (d = .73) but also larger than the overall difference from Zell's meta-synthesis (d = .21). This said, research has documented that these gender differences are neither stable nor universal.

Variation in gender differences across time and culture

Aristotle, Baron-Cohen, and Geddes suggested that differences between men and women do not only exist but are 'by nature,' 'hard-wired,' and thus, 'cannot be reversed.' From this view, one might expect gender differences to be stable across time and culture. However, Hsu et al.'s (2021) meta-analysis revealed that the size of gender differences in agency and communion has been decreasing over time, a narrowing driven both by decreases in women's self-reported communion and relatively greater decreases in men's self-reported agency.

In the same meta-analysis, Hsu et al. (2021) discovered that the gender gaps in communal self-views are larger in nations with greater occupational gender segregation, where men and women are disproportionately represented in different types of jobs. This happens to be more so in countries

that are more economically developed and gender egalitarian. Relatedly, another cross-national study of nearly 30,000 respondents across 62 countries found that gender gaps in self-ascribed agency were smaller in more gender-egalitarian countries, whereas gender gaps in communion were larger (Kosakowska-Berezecka et al., 2022).

It seems surprising and paradoxical that men and women see themselves in more dissimilar ways in cultures that otherwise encourage more gender equality. However, these patterns mirror other evidence that higher economic development or gender equality also predicts larger gender gaps in communal personality traits (Lippa, 2010; D. P. Schmitt et al., 2008) and prosocial preferences (Falk & Hermle, 2018). These distinctive patterns might be interpreted as evidence that in wealthier, more egalitarian countries, women are increasingly socialized and encouraged to adopt the roles and traits of men, but at the same time, men are not necessarily encouraged to adopt the roles and traits of women (Block et al., 2019).

Gender gaps in gender and sexual minorities

As there is relatively less research on people who identify as transgender or non-binary, this section has thus far reviewed differences measured among self-identified women and men. However, in one meta-analysis, Hsu et al. (2021) found evidence of smaller gender gaps among those identifying as gay, lesbian, or bisexual compared to straight samples. That is, gender differences in agency (g = -0.13) and communion (g = -0.21) were smaller in gay and lesbian samples and even smaller in bisexual samples (agency g = 0.06; communion g = -0.14) than in straight samples (agency g = 0.47; communion g = -0.58).

Future work is needed to understand whether gender gaps in these core dimensions are also smaller among those who identify as nonbinary, gender fluid, or transgender. Research by Olson and colleagues (2022) suggests that transgender children (and perhaps also adults) exhibit gender differences in personality that align more with their gender identity than their assigned sex. Other available evidence suggests that those who do not identify in traditional cisgender, heteronormative, or gender binary ways also show less evidence of gendered personality.

Agency and communion encompass two broad and largely orthogonal dimensions along which behavior can vary, thereby providing a conceptual frame and an established set of measures for understanding gender differences more broadly (Sczesny et al., 2019). Although gender differences in more specific behaviors have been investigated, an exhaustive review of such evidence is beyond the scope of this chapter. Moreover, specific gender differences often depend on task choice and contextual factors. For example, one behavioral manifestation of agency is competitiveness and meta-analytic evidence reveals that men's compared to women's greater willingness to enter competition is constrained to tasks (e.g., math, sports) where men are often assumed to have an advantage (Markowsky & Beblo, 2022). Also, even when women are less willing to *enter* competition on a task, they are not more likely to *opt out* of competition if their participation is assumed (He et al., 2021). Thus, although it might seem that behavioral effects would be a purer way to measure similarities and differences than measures of traits, research needs to be mindful of the moderating role that context can play in specific behaviors.

Evolutionary And Biological Contributions To Gender Differences

The relationship of gender expression with one's sex assigned at birth raises the possibility that biological differences linked to sex differences in chromosomes, anatomy, or hormones (at least partly) underlie gender differences in behavior. As the examples given at the beginning of this section make clear, biological explanations have often been assumed. In modern scholarship, biologically-based explanations for sex/gender differences are grounded in evolutionary theory, especially as it relates to mate preferences and sexual selection (e.g., J. Archer, 2019). Greater detail on these topics is provided in Simpson and Gangestad's (2025) chapter. This chapter touches on these topics as they relate to explaining differences and variability in gendered patterns of behavior.

Sex Differences In Dominance And Care

From an evolutionary perspective, sex (and gender) differences in traits related to dominance and caregiving are the result of sexual selection pressures (Darwin, 1871). Across many species, genetic advantages are afforded to females who prefer mates who offer status and protection, and to males who prefer mates who are physically and psychologically equipped to bear and care for their offspring. According to parental investment theory (Trivers, 1972), females' greater physical risk associated with bearing, birthing, and caring for young offspring leads them to be choosier in selecting a mate and to adopt a more long-term mating strategy, relative to males. As a result of these selection pressures, males engage in more competition with each other to attract high-quality female mates. These sexual selection pressures then result in evolved tendencies for males to be larger, stronger, and more dominant (and for these to be desirable male traits); and for females to have physical attributes conducive to fertility and childbirth and behavior preferences for caregiving (and for these to be desirable female traits). Furthermore, human offspring's extended period of dependence requires caregiving from mothers (and others) to maximize survival (Hrdy, 2011).

Within humans (and perhaps other primates), physical and behavioral trait differences are thought to underlie males' greater tendency toward dominance (the vertical dimension) and females' greater tendency toward communion (the horizontal dimension, Sidanius et al., 1995). After all, similar sex differences in traits are seen across a range of species, albeit with variation both within and between species as well as due to ecological conditions (Geary, 2021; Janicke et al., 2016). As summarized by Archer (2019), male-male competition might have provided selection pressures for males' greater aggression, impulsiveness, visuospatial ability, and object-centeredness; whereas females' need to form close relationships with one another might have provided selection pressures for their greater social relational skills and verbal ability, although female-female verbal aggression might also underlie females' vulnerability for depression, anxiety, and fearfulness.

Another view suggests that as compared with males, females might have evolved a suite of mechanisms for the protection of themselves and their offspring that allows them to be sensitive to and respond to threats (Benenson et al., 2021). Such self-protective mechanisms include physiological responses (stronger immune response to pathogens), behavioral differences (more night awakenings), and greater cognitive sensitivities to detect and emotional reactions toward threatening stimuli. Relatedly, some hypothesize (though evidence is limited) that females are more likely than males to react to threats with a tend-and-befriend pattern, whereby the instinct is not only one of self-protection (i.e., fight or flight) but also to connect to and care for others in one's social network (S. E. Taylor, 2006).

Evidence presented as support for evolutionary explanations for sex or gender differences is often hotly debated (e.g., Buss, 1989; Eagly & Wood, 1999). Also, some scholars have cautioned that because human males spend relatively more time engaged in childrearing than many other male primates, the standard 'males compete/females choose' theory of sexual selection might exaggerate the magnitude of sex/gender differences among humans (Stewart-Williams & Thomas, 2013). An evaluation of the evolutionary perspective on human sex differences draws upon three key sources of biological evidence: cross-species comparative analyses, research on hormonal influences on behavior, and research on brain and behavior.

Comparative Analyses

Comparative analyses can draw on sex-typical behaviors across a range of species, but it is often considered most useful to focus on our closest primate relatives. In his in-depth study of non-human primates, Frans de Waal (2022) notes that chimpanzees (Pan troglodyte) and bonobos (Pan paniscus) are equally genetically similar to humans, yet exhibit marked differences in behavior. Of the two species, chimpanzees engage in more male-male competition, dominance, and aggression to obtain and maintain status. In contrast, bonobos live in more female-led troops where the status quo is established and maintained through reciprocal sexual activity, not dominance. In both species, however, females take primary responsibility for caring for their offspring.

In addition to differences between the two species, de Waal (2022) documents within-sex variability in gendered behavior. For example, some females adopt more male-like patterns of behavior, and some males provide care and comfort to others. In other words, it is an oversimplification to categorize non-human primates only in terms of the sex-based binary of male and female. Rather, much like in humans, gendered behavior is distinct from natal sex in chimpanzees and bonobos.

Comparative analyses are sometimes used to provide an opaque window into human's evolutionary past by seeming to strip away thousands of years of culture. And yet, observations of the behavior of these two species would lead to quite different conclusions. A study of sex and gender differences in chimpanzees provides comparative evidence for male dominance and female caregiving, whereas the same study in bonobos would complicate that picture given quite different patterns of behavior and sociality, and lower levels of dominance more generally. Interestingly, in mid-2023, a search of the research literature yields seven times more articles on chimpanzees compared with bonobos.

Evidence also suggests that the depiction of our closest primate relatives might underrepresent female dominance. We commonly view males across many species as being inherently more aggressive and dangerous. Yet in many species, it is the mothers who are most aggressive, especially when they are acting to protect their young (de Waal, 2022). Furthermore, female chimpanzees have and maintain dominance hierarchies, albeit ones that are less dynamic, precarious, and influenced by competition than the ones of male chimpanzees (Foerster et al., 2016). By contrast, in humans, dominance-based physical competition among men has increasingly been replaced with prestige-based competition for skills and competence in modern society (Henrich & Gil-White, 2001), which also allows for greater competition between men and women (Guimond et al., 2006; Rendall, 2017).

In sum, there are notable sex differences in the behavioral tendencies of female and male primates, but there is also variation in these tendencies both within sex and across different species. That

said, across our closest nonhuman relatives, females do, on average, engage in more care of the young. Another source of information about human sex/gender differences might be found in any observable differences in the human brain.

Brain And Neural Differences

Researchers have sought to identify sex or gender differences in the brain using both structural and functional methods. Structural methods have revealed some differences in brain size and composition. Male brains tend to be larger than female brains (adjusting for body height; Ritchie et al., 2018) and differ in gray matter (Lotze et al., 2019). Based on these and other structural differences, the assigned sex of a person can be identified from structural brain differences with an accuracy ranging between 69% to 93% (N. E. Anderson et al., 2019).

Linking these structural differences to behaviors or traits, however, has proved challenging. In one of the most rigorous studies to date (van Eijk et al., 2021), researchers sought to examine relationships between brain structure and behavioral measures within sex, thereby sidestepping interpretative challenges found with any between-sex comparisons. Although correlations between brain structure and behavior (i.e., measures of cognitive ability, personality, and mental health) emerged overall and within sex, these correlations were non-significant when controlling for sex differences in brain size. Thus, even if structural differences in the brain play a causal role in sex/gender differences in behavior, the magnitude of these effects appears to be small.

Increasingly, neuroscience focuses less on structural distinctions or regional patterns of activation and more on functional connectivity. Here too, research finds little evidence to support strong claims of sexual dimorphism in the brain. For example, a review of three decades of research concluded that differences that have been reported are not replicable and are often spuriously linked to brain size (Eliot et al., 2021). Other work has linked sex/gender-specific patterns of activation to psychological adjustment. A study of almost 1,000 participants sought to identify the functional brain networks (at rest) that maximally distinguish between male and female brains (Luo & Sahakian, 2022). Rather than focusing on categorical distinctions, however, this study examined resting-state functional connectivity that fell in between the extremes, thus representing 'psychological androgyny.' Those individuals with this more androgynous pattern of functional connectivity had better mental health outcomes (i.e., less evidence of depression or anxiety, Luo & Sahakian, 2022). Such evidence suggests that sex-based neural function might not be psychologically adaptive.

There are, of course, interpretative challenges when studying group differences in patterns of neurological activation or connectivity. Compared to functional differences, structural differences would seem easier to associate with assigned sex. However, any observed gender differences in dynamic processes of activation or connectivity might merely underlie differential patterns of learned behavior, rather than reflecting inherent biological differences due to sex. Similar interpretative challenges exist when examining research on gender/sex differences in hormonal processes.

Hormonal Differences

Hormonal data are often assumed to be the clearest biological mechanism to explain sex/gender differences in preferences or behavior. On the one hand, sex differences in hormones are

undeniable. Adult men and women (assuming they have not undergone hormone therapy or have atypical genetic conditions) have largely non-overlapping levels of testosterone (Handelsman et al., 2018). Yet, despite this stark difference in underlying biology, the links to sex/gender differences in behavior have often been difficult to detect. Absolute levels of testosterone do not appear to play a direct role in aggression, dominance, and status-seeking behavior (Sapolsky, 1998a). Furthermore, research has tried and failed to isolate direct relationships between testosterone and risk-taking (Schaefer et al., 2022), personality (Sundin et al., 2021), or leadership behavior (Van der Meij et al., 2016).

Reducing an animal's ability to produce testosterone through castration is, however, a tried and true method to reduce aggression in a variety of species (Sapolsky, 1998a). Yet in humans, changes in circulating testosterone lead to only small but reliable changes in aggression (Carré & Archer, 2018; Geniole et al., 2020). The evidence that prenatal exposure to testosterone in the womb is linked to later aggressive tendencies in men is also mixed (Hoskin & Meldrum, 2018). In addition, in studies examining the effects of gender-affirming testosterone therapy among 664 transgender men, only about half of the studies observed significant pre to post level changes in aggression-related experiences after starting hormonal therapy (Kristensen et al., 2021). In sum, although testosterone is linked to aggressive behavior, there is no one-to-one relationship between higher testosterone and higher aggression.

Alongside this mixed evidence for hormones being the primary causal influence on behavior, clearer evidence suggests that changes in behavior can causally lead to changes in circulating hormone levels. For example, one meta-analysis found that testosterone increased after winning a competition, although this effect was strongest for men and athletes, and was not found for women and non-athletes (Geniole et al., 2017). Another meta-analysis found that men's testosterone is slightly but significantly reduced when men engage in caregiving behavior (Meijer et al., 2019). Similarly, men who become fathers or take care of their child show reduced levels of testosterone, an adaptive response that might reduce aggressive behavior (van Anders, 2013).

If testosterone is the hormone presumed to underlie men's dominance, oxytocin is the hormone proposed to underlie women's caregiving. As adults, women have higher levels of circulating oxytocin than men (Marazziti et al., 2019). Oxytocin is commonly acknowledged for its role in female-specific functions such as inducing labor during childbirth and lactation afterward (Prevost et al., 2014). Relatedly links between oxytocin and attachment and bonding between infants and their mothers have been suggested (Galbally et al., 2011). But scholars have speculated that perhaps this hormone plays a more general role in trust and social skills. For example, the administration of intranasal oxytocin increases the tendency to quickly recognize happy and angry faces (Shahrestani et al., 2013), to trust similar others (van Ijzendoorn & Bakermans-Kranenburg, 2012), and to be cooperative (X. Yang et al., 2021).

Despite these findings, however, this literature has been criticized given the lack of evidence that intranasal oxytocin could breach the blood-brain barrier to directly affect social perception and behavior (Evans et al., 2014). Even if spontaneously induced changes in oxytocin are linked to socio-emotional skills and behavior, it remains unclear if this would explain sex or gender differences in communal traits and preferences. For example, in non-human species, there is little evidence for sex differentiation in the oxytocin system that is correlated with sex-typed behavior (Caldwell, 2018).

In sum, an evolutionary perspective on sex/gender differences in humans provides a set of compelling explanations for why evolution might have favored men who are more physically

dominant and focused on gaining and maintaining status and favored women who are better able to detect environmental threats and have more caregiving capacities. These theories presume that biological mechanisms should underlie sex-linked differences between men and women in traits, behaviors, and preferences, and yet clear and undisputed evidence of those mechanisms is surprisingly scarce (but see J. Archer, 2019 for a broader summary). This is not to deny the existence of any biological differences linked to sex/gender, but rather to situate those differences within a broader historical and social-psychological context.

Historical And Environmental Contribution To Gender Differences

Psychology is not a science with a long agreed-upon list of natural laws, yet one truism is that variability in traits and behavior is a function of both nature and nurture (e.g., Eagly & Wood, 2013). Even the most basic biological mechanisms thought to underlie gender differences in behavior can only be understood in interaction with environmental affordances and constraints. The neuroendocrinologist Robert Sapolsky, for example, writes in his book on testosterone that, "Violence is more complex than a single hormone (…) our behavioral biology is usually meaningless outside the context of the social factors and environments in which it occurs" (Sapolsky, 1998b, p. 158).

Given that gender identity, and the expression of gendered traits and preferences, are distinct from more categorical classifications of sex, it is particularly important to consider how gender has and continues to change in historical context. Strict evolutionary approaches assume that biological differences between the sexes should produce behavioral differences between men and women that are largely stable across time and universal across culture (Heine & Norenzayan, 2006). However, evidence that gender differences vary by time and place would suggest that historical and environmental influences play an important role.

Those working at the interface of political science, economics, and anthropology document various ways in which notions of gender and indices of gender equality are tied to historical, geographical, and economic considerations (see Giuliano, 2017 for a review). Most notably, societies show evidence of greater gender equality (most often defined in terms of women's autonomy) to the degree that women retain more control over land, food production, or other economic resources. For example, in hunter-gatherer societies, women's gathering provides the majority of calories, affording them relatively greater independence than in agrarian societies where men have a disproportionate role in food production (Iversen & Rosenbluth, 2010).

Variability in how labor was divided in agrarian cultures centuries ago is related to variability in gender equality today (Alesina et al., 2013). Partly tied to geographical features such as soil type, some societies, over time, moved to use the plow to till the land. Because this technological innovation required greater upper body strength than hoes and other hand tools, it afforded a gendered division of labor with more men (who are, on average, physically stronger) working the fields and women managing work inside the home. This division of labor, it is reasoned, gave men greater control over economic resources and work outside the home. Gender role attitudes then developed to justify this division of labor, with echoes persisting in modern society. In fact, cultural variation in historic use of the plow centuries ago correlates with greater gender inequality today, in terms of women's lower labor market participation, political leadership, and company ownership (Alesina et al., 2013).

Gender differences and gender equality also relate to other cultural correlates. For example, although men are often assumed to be inherently more competitive, there is a small tendency for this pattern to reverse in matrilineal societies, in which lineage and inheritance transfer through women rather than men (Gneezy et al., 2009). Similarly, the often-observed gender difference in spatial reasoning favoring men is also eliminated in matrilineal societies (M. Hoffman et al., 2011). In addition, religion appears to play a role in gender disparities. In colonial times, both Catholicism and Protestantism had practices of setting up missionary schools, but Protestant missions were more likely to educate both boys and girls. Perhaps as a result, women today have higher educational attainment in regions with a Protestant rather than a Catholic mission (Nunn, 2014).

Examples such as these suggest that women's presumed inequality and inferiority to men have been a product of cultural evolution (Inglehart, 2018). This is not to say that biology plays no role in how labor is divided between men and women (see Eagly & Wood, 2012). Rather, biological differences between the sexes provide systematic differences in constraints and capacities that, in interaction with certain environmental needs and affordances, can lead to gender differences in behavior. For example, adult males are, on average, significantly taller and have greater muscle size and density than adult females. Human reproduction necessarily requires females to invest more in the gestation, and often early care, of offspring. These physical differences set the stage for a more gendered division of labor when geographic conditions and technological advances afford different opportunities to men and women due to physical strength or constraints due to childbearing.

These ideas are at the heart of Wood and Eagly's (2012) biosocial construction theory of sex/gender differences. Historically, men's greater size and strength paired with women's abilities to bear and care for infants promoted a gendered division of labor to maximize the safety, health, and wealth of a family. From this point of view, men's and women's different roles in society originally developed and are maintained over time a function of biological constraints in interaction with environmental demands and affordances. The implication is that these roles can and will change as structural, environmental, and economic constraints change. Furthermore, changes in women's and men's social roles bring along change in the traits and values associated with these binary gender categories.

The past century has seen an unprecedented level of change to the traditional notion of gender roles across many countries (Inglehart, 2018). The combination of economic development and scientific advances has meant that many countries have moved away from more traditional values, embraced values of gender equality, and have created cultural and technological innovations (e.g., birth control, baby formula, access to safe abortions) that provide women with more control over their fertility.

During the same time, the wealthiest nations entered a post-industrial information age, which favored cognitive and intellectual skills over physical strength (Rendall, 2017). These innovations have occurred alongside political movements to secure and preserve women's rights and free women from constraints to entering fields once dominated by men. Worldwide support for gender equality is high (Horowitz & Fetterolf, 2020), and yet, as summarized in this chapter, gender disparities still exist.

Gender Segregation In Modern Societies

Discussions about progress toward gender equality sometimes fail to appreciate the two core ways in which gender segregation occurs. Sociologists draw an important distinction between vertical and horizontal gender segregation (e.g., Charles & Grusky, 2011). *Vertical gender segregation* describes the tendency for men to have occupations and social roles with higher status and power than women and thus reflects gender inequality in a social hierarchy. *Horizontal gender segregation* describes the tendency for women and men to sort (or be sorted) into occupations and social roles that differ in psychological and physiological affordances and demands but that need not differ in status. Economic changes over the past century have contributed to a reduction in vertical gender segregation, but in some cases this is paralleled by an increase in horizontal segregation (Charles & Grusky, 2004; Jarman et al., 2012).

Vertical Segregation

Women's relatively lower status in society has long been reinforced by a gendered division of labor, wherein men are the primary breadwinners working outside the home and women are the primary caregivers working within the home (Gerson, 2017). These patterns relate most directly to straight couples with children; same-gender couples often show a more balanced division of labor (Evertsson & Boye, 2018; van der Vleuten et al., 2021). Traditional gender roles between men and women in the home may contribute to vertical gender segregation with fewer women than men in positions of leadership and power.

Women's equality with men in an economic-based status hierarchy first requires their ability to enter the labor force. The economic, political, and technological advances summarized above have increasingly allowed women over the past century to carry out paid work outside the home. Across the world, just over 50% of working-age women are in the labor force (World Bank, 2022). The percentages are closer to 66% in North America, Europe, East and Central Asia, and Sub-Saharan Africa; but are at or below 25% in the Middle East, North Africa, and South Asia.

Across all of these regions, these percentages have remained flat for the past three decades and persistently below the percentage of men in the labor force, which ranges from 74% to 83% across all world regions. For example, from 1970 to 1990, women's labor force participation in the United States increased from 53% to 70% and has not changed much since (England et al., 2020). The exception to this stagnation is Latin America, where rapid economic development over the past 30 years has allowed women to increase their labor force participation to levels seen in other post-industrialized nations. The largest gender gaps in labor force participation are found for men and women in lower to middle-income countries (World Bank, 2022).

In addition to being able to work outside the home, women in recent years are more likely than men to pursue higher education, in stark contrast to former times. In fact, across the globe there currently are 112 women enrolled in tertiary education for every 100 men, except in sub-Saharan Africa (where post-secondary rates of education are low overall; Rubiano-Matulevich et al., 2019). In the United States, for example, women now make up more of the college-educated labor force than men (Fry, 2022). The success of women in education has also led to a discussion about whether boys and men are falling behind and the implications this might have for society more broadly (Reeves, 2022).

However, despite women's academic advantages, they still earn lower salaries than men. In the United States, comparing only full-time workers, women make about 0.78 cents for every dollar earned by men (Bolotnikova, 2016; Goldin, 2014). Economists estimate that 15% of that wage gap

comes from women working in careers that earn lower salaries (that is, horizontal segregation, Goldin, 2014). A substantial proportion, Goldin claims, comes from non-linear compensation structures in certain industries where employees can earn considerably more for working more hours, which incentivizes a career versus family division of labor in many couples.

In several countries, women have gained more positions of political power. For example, in 2022, women held 28% of the seats in the United States Congress. However, this is still far short of gender parity, and at the current rate, it has been estimated to take another 130 years for women to reach 50% of those in positions of political power (UN Women, 2022). Even more dramatic disparities can be found in business, where only 8% of S&P 500 companies have a woman as their CEO, although women make up 47% of the workforce in these companies (Catalyst, 2023). In terms of political and economic power, women do not rise into top positions of leadership at equal rates to men.

Despite progress toward greater gender equality across many countries, sociologists have noted that the movement toward vertical equality has not only stalled (Blau et al., 2008; England et al., 2020; Ridgeway, 2014) but in some cases has reversed (Zhu & Grusky, 2022). Scholars are still searching for clear answers to explain the stalled gender revolution toward vertical equality, but some suggest that gender stereotypes and interdependent gender roles place constraints on men's interest in caregiving, with repercussions for women's career advancement (Croft et al., 2015).

Finally, when it comes to gender roles, there remains a status asymmetry where activities and work by men are assumed to have a higher value than activities and work by women (Ridgeway, 1991; Schmader et al., 2001). As such, women are encouraged to enter into and excel in domains once dominated by men, more so than men are encouraged to do the same in domains dominated by women (Croft et al., 2015).

Horizontal Segregation

Even as people, in general, have developed more favorable attitudes toward gender equality, and women have been free to pursue higher education and work outside the home, the type of occupations and roles that men and women pursue remain segregated. There was a movement toward more gender integration in the United States between 1970 and 2000 both in terms of men's and women's major fields of study and occupational pursuit. However, this has also slowed or stalled over the past two decades (England et al., 2020; Gatta & Roos, 2005). For example, from 1970 to 1990, the percentage of women in computer and mathematical occupations in the United States increased from 20% to 35% but then declined to 26% in 2021 (Society of Women Engineers, 2022).

Some of these patterns of gender segregation also vary by race, ethnicity, and social class (Wong & Charles, 2020). For example, gender segregation in the United States is weakest among Asian Americans and strongest among Latinx. Perhaps related to demographic differences in higher education rates, gender segregation has remained more pronounced among those without a college degree. The gender integration that has happened is largely among middle-class occupations and professions (England, 2010).

Cultural increases in gender egalitarianism need not imply a decrease in assumptions about men's and women's inherent differences in interests and abilities (Grusky & Levanon, 2008). People can adopt the perspective that men and women are equal but still essentially different. As a result, economically developed and egalitarian societies maintain a separate but equal mindset on gender that encourages women's freedom of choice, while also denying that structural forces might

constrain those choices (Soylu Yalcinkaya & Adams, 2020). Men's own choices and interests are often assumed to be unconstrained, when in fact strong social psychological pressures discourage men from entering into roles and occupations dominated by women (Croft et al., 2015).

Relatedly, people in modern egalitarian societies, such as the United States, exhibit an asymmetric approach to realizing gender equality. There is greater acceptance of women becoming more like men than men becoming more like women. Perhaps as a result, progress made to encourage more women to pursue occupations in science and technology fields typically held by men is not matched by equivalent efforts to encourage men to pursue fields such as nursing and teaching typically held by women (Block et al., 2019). This asymmetry is notable as many countries contend with a crisis of care where workers cannot be found to fill growing needs in care economy jobs (Dowling, 2021).

Recent sociological research suggests that changes over time in occupational segregation are linked to asymmetries in whether people's careers follow in the footsteps of their parents (Zhu & Grusky, 2022). Mothers show a more gender-egalitarian transmission of occupations to their children. That is, the type of career a mother has is not related to children's tendency to pursue gender stereotypic jobs. In contrast, fathers show a biased pattern of promoting or inspiring stronger tendencies among their sons to pursue gender stereotypical jobs. In more recent years, daughters are even less likely to pursue their fathers' male-dominated careers.

Summary

Scholars and laypeople alike have long been invested in identifying the size, nature, and scope of gender/sex differences. The science of human behavior has generally revealed that, as binary social categories, women and men are more similar than they are different, with greater behavioral variability occurring within than between gender groups. That said, some reliable differences do emerge, especially as they relate to dominance/power and care/communality.

Although these gender/sex differences are likely shaped by the interaction of biological, historical, and socio-cultural factors, research on the origins of differences tends to focus on these predictors as distinct, and even mutually exclusive, explanations. Yet, strong evidence of inherent, culturally invariable biological differences as a primary cause is lacking. Rather, social psychologists most often adopt an interpretation of biological distinctions based on sex that historically has led to gender role differentiation (Eagly & Wood, 2012). The echoes of those past differences then have the power to imprint themselves on present-day patterns of vertical and horizontal segregation. However, these structural differences are created and maintained by the social psychological forces of gender stereotypes and prejudice.

III. GENDER STEREOTYPES: SOCIALLY CONSTRUCTED CONSTRAINTS OF THE GENDER BINARY

Gender Stereotypes Of Men And Women

Social psychologists have long been interested in how psychological differences (and similarities) among different gender groups relate to gender stereotypes. This has included perspectives on how

the perceptions of different roles and behaviors by gender foster the creation and maintenance of stereotypes, as well as how these stereotypes then influence both how people of different genders are perceived and how they perceive themselves. This section focuses on the role of stereotypes as cognitive constructs that can shape social perception.

Defining Gender Stereotypes

Stereotypes are a central social psychological construct used to understand—if not explain—gender differences in personality and behavior (Bodenhausen & Cheryan, 2025). Like any stereotype about a social group, gender stereotypes are cognitive schemas containing information linked to or associated with gender categories (Ellemers, 2018). By definition, stereotypes help perceivers make sense of a complex and dynamic social world by carving nature at (what are perceived to be) its conceptual joints. Notably, stereotypes do not merely exist in the minds of social perceivers; they are embedded in all levels of culture (Diekman & Schmader, 2024). They are part of our cultural belief system, are represented in and afforded by institutions, and manifest through social interaction. Gender stereotypes are thus socially constructed, consensually known beliefs and associations that are thought to differentiate gender groups—most often women and men—and inform the impressions people make of each other.

Gender stereotypes describe the assumed traits that differentiate people based on their gender, but also have normative power in prescribing and proscribing how men and women *ought* and *ought not to be* (Burgess & Borgida, 1999; Moss-Racusin, 2014; Prentice & Carranza, 2002). For example, women are often expected to be highly communal, and are proscribed from being dominant (Rudman, Moss-Racusin, Phelan, et al., 2012). As a result, women who display dominance can face penalties that hinder their advancement into leadership positions (Heilman, 2001; Phelan et al., 2008). Men, in contrast, are often prescribed to display strength and assertiveness, and are proscribed from being weak or emotional (Rudman, Moss-Racusin, Phelan, et al., 2012). The proscriptions against men displaying such characteristics can create barriers to men's involvement in activities and roles typically occupied by women (Bosson et al., 2005; Vandello & Bosson, 2013). Later sections will discuss how these prescriptive and proscriptive stereotypes can be internalized in ways that shape people's own identity and behavior but also fuel gender prejudice.

Finally, because research in the field has almost exclusively focused on stereotypes of the two largest gender categories, most of this summary will focus on discussing stereotypes of women and men. Although this binary focus is a clear limitation of existing research, it is precisely this binary and essentialized view of gender that so strongly constrains people's social perceptions of others and themselves in ways that can be both inaccurate and unjust. When available, this section includes research on people's stereotypes about subgroups within larger gender categories as well as stereotypes about gender nonconforming people.

Stereotypes About Communion, Agency, And Competence

The primary dimensions known as communion and agency, already discussed in research on gender differences and similarities, also inform research on gender stereotypes. That is, women are stereotyped to be more communal and men are stereotyped to be more agentic (Eagly et al., 2020). This broad distinction between agency and communion traces to Bakan's (1966) work proposing that two fundamental motivations underlie human behavior. More recent theorizing highlights

similar distinctions between vertical (agentic) and horizontal (communal) traits, self-perception, and behavioral tendencies (Abele et al., 2021).

Gender research often mentions and measures communion and agency. However, two distinct types of agency should be acknowledged: dominance-agency and competence. Dominant-agency includes an orientation toward gaining power, status, or control over others; it is measured with traits such as aggressive, competitive, forceful, and ambitious. Competence includes an orientation toward achieving mastery over tasks (and not status over people); it is measured with traits such as competent, intelligent, and organized. Although gender research has not always distinguished between dominance and competence, there are both theoretical and empirical reasons to do so.

First, these two dimensions parallel other theoretical distinctions in the broader psychological literature. For example, McClelland (1987) expanded on Bakan's two-dimensional framework of human motivations to postulate three core motives: power (described here as dominance), achievement (described here as competence), and affiliation (described here as communion). If these are three core human motives, then a gender scholar might ask whether women and men are stereotyped to differ in these motivational tendencies. Furthermore, if we understand agency as capturing a broader motivation to achieve status, then dominance and prestige are two theoretical routes to gaining status (Henrich & Gil-White, 2001). Dominance is used to gain status through coercion and fear, whereas prestige involves gaining status through competence and admiration. Thus, consistent with other theories distinguishing agentic behavior in this way, gender stereotypes likely also capture these differences.

Second, empirical evidence of gender differences reveals different patterns for measures of dominant-agency and competence. For example, in a meta-analysis of gender stereotypes assessed in representative public opinion polls in the United States, Eagly and colleagues (2020) differentiate between what is labeled here as dominant-agency (ambitious, aggressive, but also decisive, courageous) and competence (intelligent, organized, but also creative, logical) to show very different patterns of stereotype changes over time on these two measures. Similarly, in a meta-analysis of backlash against agentic women, such harmful effects were only found on measures of dominance and not competence (M. J. Williams & Tiedens, 2016). These two meta-analyses suggest that women are stereotyped to be lower than men in dominant-agency, but not in competence. For these reasons, gender research needs to distinguish between dominant-agency and competence, alongside communal stereotypes.

Measuring Gender Stereotypes Explicitly And Implicitly

Research on gender stereotypes has traditionally relied on self-report measures to assess people's explicit beliefs about gender differences. Over the past three decades, social psychologists have recognized that stereotypes can be conceptualized both as explicit beliefs expressed as propositional statements (e.g., men are aggressive, women are kind) and as implicit associations of concepts that are easily coactivated with gender categories (e.g., men = aggression, women = kindness; Gawronski & Bodenhausen, 2006; Bodenhausen & Cheryan, 2025). Explicit gender stereotypes are commonly measured by asking participants to indicate the degree to which they believe men and women are different or similar on a series of trait dimensions. However, one critique of the research on explicit gender stereotypes is that there is no agreed-upon and psychometrically validated measure of gender stereotypes. Instead, researchers often use the trait ratings that fit their topic, leading to variability in how gender stereotypes are conceptualized across studies.

Implicit stereotypes capture the cognitive associations that are automatically activated when a gender category is brought to mind. In the literature on implicit gender stereotypes, these are commonly measured using reaction time tasks. Such tasks quantify the degree to which activating one category label (e.g., man) facilitates or inhibits one's ability to respond quickly and accurately to stimuli representing traits, roles, or domains that range in how stereotypically associated they might be with that gender group. Among these measures, the implicit association test (IAT) is the most widely used (Greenwald et al., 1998). The gender IAT compares participants' reaction times when they categorize stimuli related to men or women (e.g., photos, names, pronouns) alongside stimuli related to stereotypic associates (e.g., career vs. home) using the same or different keys on their keyboard (Nosek et al., 2002). To quantify the strength of people's stereotypes, researchers compute the degree to which a person's average response latency is faster across two paired blocks in which (a) men = career and women = home are categorized using the same response keys (i.e., a stereotype congruent pairing) compared to when (b) men = home and women = career are categorized using the same keys (i.e., a stereotype incongruent pairing). Auditory variants of this task have been used to document evidence of implicit gender stereotypes in children as young as three years of age (Gonzalez et al., 2022).

One critique of the literature on implicit gender stereotypes is that it does not often provide a clear parallel to the work on explicit stereotypes. When comparing the two measures, the most common measures assess explicit stereotypes as the traits that are seen as differentiating men and women. In contrast, the most commonly used implicit measures assess cognitive associations of women and men with different roles or domains (career/family, science/liberal arts) rather than traits. In this way, one might better conceptualize these measures as tapping into the stereotypic associations of these roles and domains with men or women, not the stereotypic associations of gender *per se*. The popularity of the IAT, and in particular, Project Implicit, for passively collecting large quantities of data has perhaps led to methodological inertia in how implicit gender stereotypes are conceptualized and measured.

As with implicit and explicit measures in general, when measures of implicit and explicit gender stereotypes assess the same or similar construct (e.g., think science, think male), they are often only weakly correlated (*rs* = 0.15-0.22, Charlesworth & Banaji, 2022b). That is, the degree to which one explicitly believes that women and men differ in certain traits or domains has little bearing on the degree to which one implicitly associates women and men with that trait or domain. In addition, because implicit gender stereotypes often connect gender groups to roles or domains, measurement can also be confounded by one's attitudes toward those domains. For example, criticism of the gender-science IAT (which measures a tendency to associate science more with men than with women) includes that it partly assesses gender differences in implicit liking for science versus arts, which could complicate explanations involving this measure (Zitelny et al., 2017).

Other Variants Of Gender Stereotypes

In addition to a more general focus on stereotypes of women as more communal and of men as more dominant-agentic, research has examined the degree to which people explicitly or implicitly associate various roles or domains more with women or men and how these more specific stereotypic associations potentially reinforce patterns of vertical and horizontal segregation. For example, men's positions in higher-status roles are supported by associating men more than women with leadership, brilliance, and prioritizing career over family. The segregation and self-selection of

men and women in different kinds of occupations are supported by associating men more with science and math and women more with arts and reading.

Gender-leader

Interest in understanding gender disparities in leadership has led to work focusing on stereotypical beliefs about leaders. Research on the 'think manager, think male' phenomenon suggests that the characteristics and behaviors thought to be necessary for leadership overlap more with the stereotypical attributes of men rather than women, especially for upper-level leadership positions (Koenig et al., 2011). Men tend to hold this stereotype more strongly than do women. The cultural construal of leadership as masculine produces a perceived lack of fit or role incongruity that induces prejudiced evaluations of women as potential and actual leaders (Eagly & Karau, 2002; Heilman, 2012).

People's gendered perceptions of leaders and the resulting cognitive distortions in how people process information can impair expectations for women's performance in leadership roles but also constrain, women's more than men's, aspirations and success in these roles (Heilman, 2012). Meta-analytic work found that the extent to which leadership is defined in masculine terms relates to the extent to which women leaders face prejudice (Eagly et al., 1992). Furthermore, research suggests that children learn the tendency to associate positions of power more with men than with women already by age six (Reyes-Jaquez & Koenig, 2022).

Gender-brilliance

Distinct from stereotypes linking men more than women with leadership is the tendency to stereotype men more than women with brilliance (Bian et al., 2018). These gender-brilliance stereotypes are held both implicitly and explicitly and can bias who people believe is capable of doing highly intellectually challenging tasks (Storage et al., 2020; Bian et al., 2017). Children typically acquire these stereotypes in early elementary school and they increase in strength with age (Bian et al., 2017; Zhao et al., 2022). Moreover, the brilliance = male stereotype predicts men's overrepresentation in academic fields where scholars believe that brilliance is the key to success (Bian et al., 2018). These fields do not simply represent distinctions between science versus arts/humanities.

There is mixed evidence on the cultural universality of gender-brilliance stereotypes. The brilliant = male stereotype seems to apply mostly to perceptions of White men versus women (Shu et al., 2022) but is reversed and favors women over men when U.S. children evaluate Black Americans (Jaxon et al., 2019). Similarly, when Chinese and U.S. American children evaluate Asian people, both groups of children associate brilliance more with women than with men (Shu et al., 2022). Yet, research that uses implicit measures has found more reliable brilliance = men associations across different race/ethnic groups (Zhao et al., 2022).

Gender-family

The tendency to associate women more with the home and family but men more with work and career is a direct translation of the role conflict women often experience, particularly women with children. This zero-sum frame has lent itself well to studying the implicit associations people have

with men and women. For women, the stereotype of them as a good mother is seen as incongruent with being a good employee, particularly in male-dominated fields (Okimoto & Heilman, 2012; Hodges & Park, 2013) and when women consider taking maternity leave (Morgenroth & Heilman, 2017). Furthermore, the implicit association of women with motherhood is stronger than that for men with fatherhood, which predicts people's assumption that women should default to family obligations when experiencing work-life conflicts (B. Park et al., 2010; B. Park & Banchefsky, 2019).

Gender-stem

The interest in how stereotypes constrain women's entry into science, technology, engineering, and math (STEM) has inspired research on stereotypes about women's math or science ability (Charlesworth & Banaji, 2021; Levine & Pantoja, 2021). The stereotype of a successful scientist is more compatible with the stereotypes people have of men than women (Carli et al., 2016; Cheryan et al., 2013). As a result, naive observers judge women scientists with feminine appearances as less likely to be a scientist (Banchefsky et al., 2016). Research further suggests that children learn to implicitly associate math more with boys than with girls already by age six (Cvencek et al., 2011), and some children demonstrate this stereotype as early as age three (Gonzalez et al., 2022).

As evidence mounts that women's mathematical ability is equal to men's (in many cultures; Else-Quest et al., 2010), recent research goes beyond stereotypes of ability to examine stereotypes of men's and women's different interest in science. A tendency to stereotype boys and men as more interested in science and math appears by age six and is endorsed more strongly than ability stereotypes. Children also seem to use these interest stereotypes to guide what activities they are interested in doing (Master et al., 2021).

Gender-reading

Finally, stereotypical associations link reading more with girls than with boys (Wolter et al., 2015). The strength of this stereotype measured among teachers predicts a gender gap in students' reading self-concept and motivation both early (Wolter et al., 2015) and later in elementary school (Retelsdorf et al., 2015). Relationships have also been found between parents' and teachers' gender stereotypes about girls' presumed advantages in reading or verbal ability and boys' more negative self-views and value placed on reading (Heyder et al., 2017; Muntoni & Retelsdorf, 2019; Retelsdorf et al., 2015). Although gender research, in general, and work on stereotypes, in particular, tends to focus on the stereotypes that might constrain girls' and women's opportunities, research interest in how parallel processes happen for boys and men is growing. Men's relatively lower verbal performance, both compared to women's performance and compared to their math performance, might lead them to have a more asymmetrical preference for STEM careers (Breda & Napp, 2019; M.-T. Wang et al., 2013; Wan et al., 2021).

In sum, research on gender stereotypes has sought to document the assumed differences between men and women using both explicit and implicit measures. Although women and men are most commonly stereotyped to differ in communion and dominant-agency, research has also documented how specific roles and domains are stereotypically associated more with one gender than the other.

Origins Of Gender Stereotypes

Because stereotypes function, in part, as descriptive information used to differentiate social groups, the origin and content of stereotypes are intimately related to the observable differences between groups discussed in the last section. Several theoretical views on the origins of these explicit beliefs and implicit associations exist.

Social Role Theory

Social role theory is the dominant theory about the origins of gender stereotypes (Eagly, 1987; Eagly & Wood, 2012). A key assumption of social role theory is that people have a general tendency to assume people are what they do (Gilbert & Malone, 1995; Ross, 1977). Thus, if women and men are overrepresented in different social roles, the stereotypes people develop of these gender groups will be strongly shaped by the roles they see these groups perform (Eagly & Steffen, 1984; C. Hoffman & Hurst, 1990). As persuasive evidence of this idea, Eagly and Steffen (1984) demonstrated in a series of experiments that when people were presented with men and women performing stereotypically masculine or feminine roles, it was the person's role and not their gender that most shaped others' impressions of them. A key implication is that if women's and men's roles change, corresponding changes in gender stereotypes should occur.

From this perspective, a gendered division of labor both in the home and in the labor market fuels gender stereotypes. Women are and continue to be perceived as more communal than men because they continue to be the primary caregivers in the home and are overrepresented in occupations designed to meet the needs of others (e.g., the service sector, health care, social work, and education; Croft et al., 2015). In contrast, men are and continue to be perceived as more assertive, ambitious, and courageous than women because they are more likely to be the primary breadwinner of their families, occupy more high-status and high-profile roles in society, and are overrepresented in physically demanding or high-risk occupations (Eagly et al., 2000). In response to the question of where the gendered division of labor comes from in the first place, social role theory (Eagly & Wood, 2012) argues that men's and women's different roles are shaped by a complex interplay of biological, structural, and social-psychological forces described in the prior section.

Consistent with social role theory, research has documented that gender stereotypes are learned and accumulated through experience. For example, seeing more women in leadership positions increases women's implicit associations between their gender group and leadership qualities in both experimental and longitudinal field studies (Dasgupta & Asgari, 2004). Specifically, women attending a women's college developed significantly weaker leader = male implicit associations after their first year at college than did women attending a coeducational college in the same region. This relationship was mediated by women's exposure to more women professors in their courses. Relatedly, seeing women increasingly becoming scientists has weakened women's and men's tendency to implicitly associate science more with men than with women from 2007 to 2018 (Charlesworth & Banaji, 2022a) and has increased children's tendency to draw a woman rather than a man when asked to draw a scientist from 1966 to 2016 (Miller et al., 2018). Implicit gender-science stereotypes at the national level are related to, and might even explain, gender differences in adolescents' science and math achievement in that nation (Nosek et al., 2007). That said, other research suggests that it is explicit stereotypes, rather than implicit stereotypes, that become weaker among women and men working in scientific disciplines with more balanced gender ratios (Smyth & Nosek, 2015).

Stereotype Accuracy

Social role theory is not the only perspective that assumes that people's stereotypes of different groups are summary judgments of the differences between them. Social role theory is often contrasted against the evolutionary view of human sex differences, which posits that such differences result from biologically-based adaptations to the reproductive differences between women and men (Buss & Schmitt, 1993). From an evolutionary perspective, the causal model assumes that inherent differences between the sexes should lead to a consistent gendered division of labor across culture, with women having primary responsibility for childcare and men having primary responsibility as breadwinners (Murdock & Provost, 1973). Although there is cross-national variability in the extent to which this is the case, these directional differences are fairly consistent (Olsson et al., 2023).

To the degree that there are measurable average gender gaps in personality, performance, and preferences; especially when gaps have a known biological basis, some have argued that the relevant gender stereotypes are accurate summaries of true differences between men and women (Jussim et al., 2015). For example, if more men major in engineering, is it not accurate to stereotypically associate engineering more with men than women? There is evidence for the accuracy of people's gender stereotypes, suggesting that stereotypes perpetuate but also accurately communicate current gender disparities and inequality (Eagly & Hall, 2025; Jussim et al., 2018).

Other research suggests that stereotypes can lead to exaggerated perceptions of gender differences. For example, although people accurately estimate the empathizing abilities of themselves and other individual women and men, their estimates of the empathizing abilities for groups of women and men significantly overestimate the actual group differences in empathizing (Eyal & Epley, 2017). Eyal and Epley argue that social perceptions will be exaggerated when judging stereotype-relevant attributes that are highly accessible. Furthermore, accuracy at the level of group differences can coexist alongside the inaccurate application of those stereotypes when judging individuals. For example, when asked to estimate the height of an individual person, people's estimates are biased by their accurate belief that men are on average taller than women (Nelson et al., 1990). Yet, this tendency to use stereotypes to make these estimates persists even when there is no average height difference in the men and women being judged and when participants are incentivized for being accurate.

Granting that stereotypes can be accurate directional summaries of group differences, what is up for debate is both the magnitude of those differences and the explanations for where they come from. On the topic of magnitude, this chapter's earlier review speaks to the degree to which: a) there is a great deal of similarity between men and women, b) differences that exist tend to be small to moderate in size, c) the variation within gender is nearly always greater than the variation between gender groups, and d) non-binary conceptions of gender further complicate assumptions of group differences. That said, there are some measurable average differences, particularly in terms of behavioral preferences, roles, and career choices, that merit explanation.

As discussed in the prior section, evolutionary perspectives interpret such differences as evidence of innate predispositions between the sexes (e.g., J. Archer, 2019; Baron-Cohen, 2003). From this point of view, gender stereotypes provide useful information about the social world and thus, need not be regulated, changed, or controlled (Jussim et al., 2016). Social role theory also assumes that gender stereotypes reflect accurate information about the attributes typically required in the different roles that men and women enact. However, those stereotypes then dictate societal expectations and affordances that provide boys/men and girls/women with different opportunities. In other words, from a social role theory perspective, stereotypes are not purely descriptive and

cognitively inert but also come to have prescriptive and proscriptive power to shape the way people perceive others and themselves. For example, even when people's stereotypes reflect average differences between groups, stereotypes amplify those differences beyond what is the actual effect size of that difference (Krueger et al., 2003). Thus, even if men and women are biologically predisposed toward average differences in some traits and abilities, a lifetime of social forces can exaggerate how those differences subtly constrain individuals' options and how they are perceived.

Stereotype Content Model: Complementary Stereotypes And Gender Subgroups

Social role theory was developed specifically to account for gender stereotypes, whereas the stereotype content model is a broader theory asserting that stereotypes about outgroups form in response to the interpersonal and structural relationships between groups (S. T. Fiske et al., 2002; Caprariello et al., 2009). According to this theory, stereotypes about social groups fall in a two-dimensional space defined by inferences of warmth and competence. First, inferences about the degree to which an outgroup behaves cooperatively versus competitively toward one's ingroup (either realistically or symbolically) shape how warm or cold that outgroup is perceived to be. Second, inferences about the outgroup's abilities and status dictate how competent or incompetent they are perceived to be.

From this theoretical perspective, many outgroups are described by ambivalent stereotypes, that is, perceived to be high on one dimension but low on the other (S. T. Fiske et al., 2002). For example, in the most general terms, stereotypes about women are paternalistic, describing them as higher than men in warmth but lower in competence (S. T. Fiske et al., 2002). Across a variety of groups, but especially gender and age, ambivalent stereotypes replicate across diverse cultural contexts (S. T. Fiske, 2017; Sidanius & Pratto, 1999).

Research using the stereotype content model has identified different subgroup stereotypes within the broader categories of women and men (Eckes, 2002; S. T. Fiske et al., 2002). These subgroups vary widely on competence and warmth ratings. For example, both career men and career women are seen as high in competence but low in warmth. Hippy men and housewives are seen as warm but not competent. Notably, not all gender subgroups are described in ambivalent ways. Naïve women and cads (womanizing or misogynistic men) are seen as low on both dimensions (S. T. Fiske et al., 2002). Furthermore, gay men and sexy women are stereotyped to be moderate in both warmth and competence (Clausell & S. T. Fiske, 2005). Thus, subgroups of men and women are often stereotyped in quite distinct ways from broader gender categories.

Some of the stereotypes identified by research using the stereotype content model contain effects that are also consistent with social role theory. An individual's role as having a career or working in business, for example, seems to override stereotypic ascriptions based on the individual's gender. That said, the stereotypes people develop about different occupations are themselves informed by what people perceive to be the gender ratio in those careers (Cheryan & Markus, 2020; He et al., 2019). In science and technology careers where men are overrepresented, people who occupy these jobs are assumed to conform to more masculine traits.

Although the stereotype content model has long assumed only two dimensions that underlie group stereotypes (S. T. Fiske, 2018), recent research points to a third dimension represented by conservative or progressive beliefs (A. Koch et al., 2020). Men are generally stereotyped to be more conservative than women, who as a group, are perceived to be moderate on this dimension

compared to other social groups. Sexual minorities (gays and lesbians) are perceived to be considerably more progressive (A. Koch et al., 2016). The implications of this third dimension is an area for future research.

System Justification Theory: Motivations To Maintain Gendered Hierarchies

Both social role theory and the stereotype content model emphasize how stereotypes develop through observation and experience to describe groups. System justification theory, in contrast, emphasizes the motivated process by which these stereotypes are maintained. Just as people are motivated to think well of themselves and their groups, people are also motivated to think well of and justify the current social systems (Jost & Banaji, 1994). From this perspective, stereotypes themselves do not simply describe perceived or actual differences between groups; they also justify them. Within this framework, ambivalent stereotypes specifically serve a system-justifying function (Glick & S. T. Fiske, 2001b): if women are held up as being more warm and moral, they are less resistant to the stereotypic view that they are less competent or have lower status than men. Ambivalent stereotypes maintain a separate but equal view of men and women, which can underlie gender prejudice.

Evidence supports the reasoning that gender stereotypes justify differences between groups. For example, when people feel that the current system is threatened, both men and women are more likely to endorse essentialist explanations for gender differences (Brescoll et al., 2013). Furthermore, when people are reminded of ambivalent stereotypes about gender groups, they are more likely to justify the status quo (Jost & Kay, 2005). This reciprocal relationship suggests that our stereotypes about groups partly support our need to see stability in the status quo. As such, people will accept and endorse unequal systems when they believe that they have resulted from a meritocratic process whereby the high-status group has earned its place at the top of the hierarchy (Rudman & Saud, 2020).

A prediction unique to system justification theory is that even though existing status hierarchies assume women to have lower status than men (see also Ridgeway, 2001), motives to justify the legitimacy of the status quo can lead women to endorse negative stereotypes and beliefs that disadvantage their own gender (Jost & Burgess, 2000). For example, when motivated to justify the existing status quo, women (and men) derogate those who defy their social standing (e.g., women with business ambitions; Kay et al., 2009) and disagree more strongly with feminists who advocate for social change (A. W. Y. Yeung et al., 2014). Furthermore, to the degree that men and women justify the existing gender status hierarchy, they both engage in greater victim blaming of a woman who has been raped (Ståhl et al., 2010).

Women's tendency to internalize ambivalent gender stereotypes can contribute to gender disparities. Not only do women who endorse system-justifying beliefs endorse negative views and reactions toward other women they also tend to endorse more stereotypical views of themselves (Laurin et al., 2011). Even when there are no differences in the quality of work between men and women, women have been found to pay themselves significantly less than men for the same job (Jost, 1997; Major & Konar, 1984), whereas men feel entitled to greater pay (O'Brien et al., 2012). Similarly, women who are the power brokers at home are less motivated to hold a position of power at work (M. J. Williams & Chen, 2014). In the face of disadvantaged outcomes, system justification can serve as a powerful coping mechanism. Even when women generally report lower well-being than men, this gap is reduced among those who endorse system-justifying ideologies and deny the existence of gender discrimination (Bahamondes et al., 2019; Napier et al., 2020).

A strong hypothesis from system justification theory is that members of the disadvantaged group are more motivated than those from the advantaged group to justify the status quo. However, research suggests that this might not be the case. In a meta-analysis of data from over 150,000 participants, members of lower-status groups were not more likely to endorse the legitimacy of the current status hierarchy (Brandt, 2013). Instead, men (who are advantaged by existing gender status hierarchies), are more motivated to justify the gender hierarchy than are women (Kray et al., 2017), and defend the status quo by endorsing claims of reverse sexism against men when women do advance in status (Bahamondes et al., 2022). In a large meta-analysis of lower status groups' support for group-based hierarchy, women were consistently less supportive of gender-based hierarchy than were men (I. C. Lee et al., 2011). In addition, these gender gaps in support for the status quo hierarchy are larger in more individualistic, economically developed, and gender-equal countries. Women's expectations of equality in more gender-equal countries appear to fuel their support for a less hierarchical structure.

There is also variability among men in the tendency to justify the gender hierarchy that advantages their group. When men are more invested in their masculine identity or endorse more sexist beliefs, they tend to rationalize the status quo more. Variation in system-justifying effects can be seen even in support of symbolic gestures, such as those who hold more sexist beliefs exhibiting higher support for keeping the faces of founding fathers on American money rather than honoring a more diverse set of historical figures (Bushman & Collier, 2018). Among men who are less identified with their gender, the tendency to justify the status hierarchy is weaker. For example, exposure to the 2017 Women's March in Washington led weakly identified men to show a decrease in gender system justification (Saguy & Szekeres, 2018). Moreover, moral convictions for gender equality can outweigh the pull of system-justifying motives (De Cristofaro et al., 2021).

In sum, social psychological theories suggest that gender stereotypes stem both from people's perceptions of the different roles women and men inhabit and the function and quality of intergender relationships. When stereotypes describe average differences between women and men, they can be accurate, however, belief in gender stereotypes can also be motivated and used to justify existing status hierarchies. Because of this, men are more likely than women to explicitly endorse gender stereotypes that reinforce their higher status.

Variations Of Gender Stereotypes

If gender stereotypes reflect and reinforce current gender roles, then variation in those roles should be reflected in variation in gender stereotypes. Notably, women's and men's positioning in the social structure of society has substantially changed over the past century. Beginning with the women's suffrage movement in the early 20th century and later legislation, such as the Equal Rights Amendment to the U.S. Constitution in 1972, women in Western countries have gained in their political, educational, and financial autonomy. For example, since the late 20th century, women in many Western nations have entered social roles once predominantly occupied by men such as the paid labor force, leadership roles in business and politics, and higher education (U.S. Bureau of Labor Statistics, 2022). Given these changes in especially women's roles over the past century, we might also expect to see systematic variation in gender stereotypes both across time and across culture.

Are Stereotypes Changing Over Time?

As discussed, the primary gender stereotypes include traits related to dominant-agency (e.g., dominant, aggressive, assertive) and communion (e.g., warm, compassionate, affectionate). Aligned with social role theory, people reason that if the social roles of women and men were to become more similar in the future (e.g., when women gain more positions in leadership), the stereotypes that describe men and women should also become more similar (Diekman & Eagly, 2000). Specifically, when asked about the past, present, and future, U.S. respondents view women as becoming increasingly more similar to men in their personality traits, cognitive abilities, and physical characteristics; reaching parity for traits and abilities by 2050. Although men are expected to develop more communal traits, these traits are not expected to reach gender parity in the future. Women are viewed as having distinct cognitive and physical attributes that differentiate them from men in ways that are not seen as changing over time. In sum, research with the past-present-future paradigm finds that people believe that stereotypes about women are considerably more dynamic than those about men.

These beliefs about dynamic stereotypes, however, do not necessarily correspond to how stereotypes have actually been changing over time (see Nater & Eagly, 2025). In the meta-analysis of U.S. public opinion polls mentioned earlier, Eagly and colleagues (2020) examined evidence of both consistency and change in stereotypes related to communion, dominance-agency, and competence. Communal stereotypes that present women as more compassionate, emotional, and honest than men have not weakened, but rather have become even more pronounced over the past seventy years and constitute the largest assumed difference between men and women today in the United States. In contrast to people's beliefs that the gender gap in dominant-agency would weaken over time (Diekman & Eagly, 2000; Nater & Eagly, 2025), U.S. respondents' perception of men as more aggressive, ambitious, and courageous has remained constant over the last seven decades (Eagly et al., 2020).

In contrast to these persistent and deeply entrenched dominant-agency and communion stereotypes, there have been dramatic changes in competence stereotypes. Before 1960, men were stereotyped as being more competent and intelligent than women. Since the 1990s, however, the majority of U.S. respondents believe that women and men are equally competent and intelligent, with those who perceive a gender difference decisively favoring women over men. People from different demographic groups agree on the direction of change in gender stereotypes, although women (compared to men) slightly favor their own gender group and ascribe more dominant-agency, communion, and in particular competence to women than men. Also, Black compared to White respondents more strongly ascribe dominant-agency and intelligence to women than men. Taken together, competence stereotypes have changed alongside women's increased educational attainment and greater labor force participation relative to men's. This is a dramatic shift that reminds us that, although it might be difficult to eliminate the tendency to stereotype people based on their gender, the content of those stereotypes changes as women's and men's social roles and relative status change.

Alongside this evidence of changing explicit stereotypes is research examining changes in implicit stereotypes over time. Using data from Project Implicit (Moon, 2011), researchers have tracked variation in two key gender associations: the tendency to associate science more with men and liberal arts with women, as well as the tendency to associate career more with men and family with women. Examining these implicit gender stereotypes from 1.4 million Project Implicit respondents, Charlesworth and Banaji (2022b) document that implicit associations linking men more to science and career have weakened by 13% to 19% from 2007 to 2018. This change is captured across

different demographic groups and geographic locations, suggesting a broad change in these gender stereotypes.

There are important caveats to this evidence of stereotype change. First, although these stereotypical associations seem to be weakening over time, they are far from signaling gender equality. Charlesworth and Banaji (2022b) estimate that at the current rate of weakening associations, it would take 134 years for implicit male = career and female = family stereotypes to be eliminated. This trend toward weakening implicit stereotypes seems to stand in contrast to the trends toward persisting dominant-agentic stereotypes and strengthening communal stereotypes measured using explicit self-report (Eagly et al., 2020). Keep in mind, however, that these implicit stereotypes often assess associations of women and men with domains of competence, making them perhaps more similar to the explicit competence stereotypes that have also moved toward greater gender equality. It remains to be seen if implicit communal/agentic stereotypes are persisting over time in the same way that explicit public opinion poll data suggest.

Do Stereotypes Vary Across Culture?

In addition to showing variation across time, there is also evidence of both stereotype consistency and variability across culture. Theoretically, such variation might be expected for at least one of two reasons: either due to cultural variation in values or due to the cultural variations in the social roles that inform people's stereotypes.

First, there is considerable cross-national consistency in prescriptive and proscriptive stereotypes (Bosson et al., 2022). Across 62 countries, people expect men to be more agentic (operationalized as agency and competence) and women to be more communal. In all countries, men are proscribed from being weak and women from being dominant. There was only limited variability in these stereotypes across countries that related to the relatively stronger constraints of gender stereotypes for men relative to women. In less gender-egalitarian countries, the prescription for men's greater agency is stronger than the prescription for women's greater communion, and women in particular believe that men should not be weak. Although considerable research examines the constraints of gender stereotypes for women, these constraints can be even more dramatic for men. In fact, a cross-cultural study that examined how prescriptive and proscriptive stereotypes relate to social status beliefs in seven nations revealed stronger status expectations for men, and in particular for men in relatively more gender-equal societies (Sczesny et al., 2025). More specifically, this research found that the more gender-equal a society, the stronger—not weaker—were 'gender status norms' that prescribe men to show high-status agentic behavior and to avoid low-status communal behavior. These stronger status expectations likely derive from the increased competition between women and men when societies make progress towards gender equality, which overtly challenges the traditional gender hierarchy that affords higher social status to men than women (Sczesny et al., 2025).

Another cultural dimension relevant to stereotype ascriptions is individualism-collectivism. Because culturally valued traits are typically attributed to dominant groups (Ridgeway, 2001), traits that align with prevailing cultural values should be more easily ascribed to men, who most often hold positions of power and status. Consistent with this logic, although women are stereotyped to be more communal than men in most countries, people show stronger men = communion (e.g., helpful, kind, friendly) associations in more collectivistic Asian cultures (e.g., Bosson et al., 2022; Cuddy et al., 2015; Löckenhoff et al., 2014; Steinmetz et al., 2014). For example, people in Japan (a collectivist country) perceive women and men as similarly communal, whereas people in Germany

(a more individualistic country) perceive women as significantly more communal than men (Steinmetz et al., 2014).

Social role theory suggests that to the degree women's and men's roles vary across culture, corresponding variations in stereotypes should exist. Indeed, the stereotypic tendency to implicitly associate men more than women with science (vs. arts) is weaker in countries where a greater proportion of science majors are women (Miller et al., 2015). The exposure to more women majoring in STEM fields seems to weaken the stereotypes that science and technology are masculine domains.

Predictions from social role theory have also been examined through cross-cultural comparison of data from the United States to countries undergoing considerable economic and cultural transitions. Research with the past-present-future paradigm described before has found that perceptions of women's increasing dominance-agency correspond to women's increased access to education and employment not only in the United States, but also in Ghana, Brazil, Chile, Germany, and Sweden (Bosak et al., 2018; Gustafsson Sendén et al., 2019). Several of these countries also reveal increases in perceptions of men's communal personality traits, albeit with weaker effects. Changes in dynamic stereotypes have shown a different pattern in Spain, where the gender gap for communion has narrowed over a 10-year period but gender stereotypes for agency have widened (Lopez-Zafra & Garcia-Retamero, 2021). These subtle variations across countries are not yet well-understood.

Tracking changes in stereotypes within countries undergoing a transition from developing to developed is particularly illuminating. When Chile and Brazil transformed from largely agrarian economies to industrialized economies in the latter half of the 20th century, both men and women gained increased access to employment opportunities outside the home combined with a cultural shift from a more communal/collectivist frame to a market pricing frame that emphasizes individual output and gains (A. Fiske, 1992). When Diekman and colleagues (2005) examined how gender stereotypes have changed in these countries, compared to the United States, they found substantial variation. In Chile and Brazil, both men and women were perceived to have become more dominant-agentic over time (whereas in the United States, only women were perceived to have become more dominant-agentic). In all three countries, the gender gap in communion was perceived as narrowing, but more because of women becoming less communal rather than men becoming more communal.

In sum, variation in gender stereotypes across time and culture seem to suggest that increases in individualism that come with economic development might fuel a cultural prioritization for agency over communion. Women's entry into the labor market and their attainment of higher education have perhaps especially contributed to a narrowing gender gap in perceived competence. However, according to public opinion poll data, men's dominant-agency advantage has not reduced or disappeared, likely because people underestimate the continued gender segregation of the labor force and the fact that women who enter occupations dominated by men often are in more communal job categories within the profession (Eagly et al., 2020).

Intersectional Stereotypes

Admittedly, most of the research on gender stereotypes treats men and women as large and homogeneous groups and does not often deal with the complexities of intersectional stereotypes for subgroups of men and women. The evidence that does exist suggests that broader gender stereotypes are most applicable to the perceptions of White men and women in traditional gender

roles (Ghavami & Peplau, 2013). The tendency to assume that the prototypical man or woman is White appears early in childhood and increases with age (Lei et al., 2022). Yet, stereotypes at the intersection of gender with race/ethnicity and age vary.

At the intersection of gender and race/ethnicity, Asian men and Black women, in particular, are viewed as less prototypical of their respective gender categories (Schug et al., 2015). Asian men are stereotyped to be more feminine than the prototypical man and Black women are stereotyped to be more masculine than the prototypical woman. The strong Black woman stereotype leads people to expect more aggressive and dominant behavior from Black women than from White women (Donovan, 2011; Motro et al., 2022). More generally, stereotypes of Black women and men are more similar than those of White women and men. For example, gender-STEM stereotypes are stronger for White American men and women than for Black American men and women (O'Brien et al., 2015; Starr et al., 2022). Although this relative freedom from gender stereotypes could come with some advantages for Black women, it can also lead social perceivers to deny Black women's experience of sexism (Coles & Pasek, 2020).

Age and gender interact as well to shape stereotypes. The prototypical stereotypes about men and women best describe people's view of men and women as young to middle-aged adults. As people age, they are perceived to be less masculine/agentic; although judgments of femininity/communion do not change (Kite et al., 1991). Some stereotypes also tend to be dynamic across childhood. For example, stereotypes about boys' greater ambition and girls' greater submissiveness seem to only exist in people's perceptions of adolescents but not of younger children (Sullivan et al., 2022).

Even though people hold intersecting stereotypes about different demographic subgroups, research suggests that when gender is salient, people primarily view others through the lens of gender, losing focus on other intersecting identities such as race/ethnicity or age. For example, when compared with White men, Black women might be more readily associated with weapons when people are judging targets using a racial lens but are less readily associated with weapons when judged through a gender lens (Petsko et al., 2022). Such evidence again suggests that men and women of color might at times be protected from constraints of gender stereotypes, but this will also vary substantially by context.

Summary

Gender stereotypes are cognitive constructs that describe what men and women are like, on average. Stereotypes can be measured as explicit beliefs or as implicit associations. They are to some degree shaped by the different roles that women and men have in society as well as the functional interdependence between women and men. However, those stereotypes can also justify a gender-based hierarchy where women are presumed to be different than, but also inferior to, men. As such, prominent stereotypes are ambivalent, they presume that women are more communal and that men are more dominant-agentic. Yet, these stereotypes show some variation across time, culture, and by intersecting identities.

IV. GENDER SOCIALIZATION AND SELF-STEREOTYPING

The prior section described what gender stereotypes are and where they come from. In doing so, stereotypes both describe presumed differences in traits and behavior and underlie a motivation to

maintain a gendered hierarchy. Stereotypes assume that men and women are fundamentally different and that men are and should be more dominant and status-oriented than women, whereas women are and should be more caring and communal than men. These stereotypes do not only have the potential to shape how people view each other, they also have the potential to shape people's self-views. Given that such internalization seems to assume the development of a gendered self, this section begins with a summary of developmental perspectives on gender identity (see also Olson & Yarrow, 2025).

The Process Of Developing A Gendered Sense Of Self

Gender is a central construct not only for how we see others but also for how we see ourselves. Its developmental origins begin in early childhood (see Liben et al., 2002). There are several interrelated facets to this development, including the knowledge of gender as a concept and category, the recognition and labeling of one's own gender identity, learning how social stereotypes are associated with gender categories, and the internalization or rejection of those stereotypes as self-descriptions.

Development Of Gender Identity In Children

Children understand and notice gender early on. Infants as young as three months can recognize gender as a social category (Quinn et al., 2002). By five months of age, they distinguish voices by gender, even before they categorize faces by gender (S. P. Johnson et al., 2021). By ten months of age, children can detect correlations between the gender of a person and a set of neutral objects women and men tend to be associated with, a capacity that sets the stage for learning gender stereotypes (Levy & Haaf, 1994).

By around the age of two, children develop an idea of their own gender identity (Ruble & C. L. Martin, 1998), and research from the 1970s showed that this is true regardless of whether a child's gender identity matches their assigned sex (Green, 1976). This period in development marks a more notable increase in the use of gender labels for oneself and others and a greater understanding of gender-consistent and inconsistent activities and preferences (Liben et al., 2002; C. L. Martin et al., 2002). Young children show tendencies to adopt increasingly more rigid beliefs about themselves (peaking around age 4-6) and about others (peaking around age 5-6), before these stereotyped cognitions relax somewhat later in childhood and adolescence (Halim, 2016). Relatedly, as children grow older, they develop greater knowledge of the gender stereotypes prevalent in their culture but also stronger beliefs that people need not be confined to these (Signorella et al., 1993). After reviewing how gender identity develops, this chapter will discuss the internalization of gender stereotypes.

Contrasting Theoretical Perspectives

Early debates about the development of gender identity focused on the causal question of whether a child's sense of their own gender develops before or after they begin to adopt and internalize gender stereotypic preferences (see C. L. Martin et al., 2002 for a review). Social learning theories and cognitive theories provide contrasting answers to this question. Social learning approaches theorize that children's observations of others' reactions to their behavior lead them to develop a

gender identity, whereas cognitive approaches theorize that gender identity develops first, and this then guides children's gender-congruent behavior.

Social learning theories

Applied to gender development, Mischel's (1966) social learning approach focused on external influences and assumed that through trial and error, children learn that they are rewarded for behaviors considered appropriate for their gender, and punished for behavior incongruent with their gender. The observation of their own preferences, having been shaped in this way, will lead children to draw an inference about and develop their gender identity. Thus, when a young girl perceives that she is rewarded for doing "girl things" and punished for doing "boy things," she concludes that she must be a girl (C. L. Martin et al., 2002).

Bussey and Bandura (1999) later suggested that biological, environmental, and cognitive factors combine to shape young children's developing understanding of their gender identity. For example, children might use shared biological features to categorize others based on sex, attend to those of the same sex, and use these same-sex role models to learn appropriate behaviors and preferences. In this view, children might seek out environments that either reinforce or conflict with gender stereotypes as they develop a sense of their identity. However, the assumption is still that children learn their identity through social learning processes.

Cognitive development theories

The social learning view of gender identity development was challenged by those who espoused a cognitive approach. According to cognitive-developmental views, first proposed by Kohlberg (1966), children develop a concept of their gender identity, that is, the perception of themselves as a girl or boy, by around the age of 2. By the age of 4, children come to believe that gender identity is stable over time and remains (mostly) constant even in the face of changes in one's appearance, behaviors, and preferences (Slaby & Frey, 1975). Once children form a stable sense of their gender identity, this guides their attention toward and adoption of behaviors and preferences that they experience as consistent with that identity (Kohlberg, 1966; Liben & Signorella, 1980; C. L. Martin & Halverson, 1981; Ruble & Martin, 1998).

Consistent with this view, Bem's gender schema theory (1981, 1993) proposes that children's gender schemas—semantic networks of gender information—guide their attention toward and memory for gender-relevant information, incorporating schema-consistent information into their emerging self-view. But notably, according to this theory, individuals differ in how gender schematic they are. Whereas those who are gender schematic are thought to use gender as a salient feature for understanding others and themselves, those who are gender aschematic do not.

To conclude, the social learning and cognitive development approaches suggest different processes for the development of gender identity. Social learning theories emphasize the influence of parents, teachers, and the media, and conceptualize children as rather passive recipients of environmental influences. Cognitive theories, in contrast, focus on children as active perceivers of their environment who selectively process or ignore information depending on what is self-relevant. Most likely, processes from both approaches are involved in the development of one's gender identity. As suggested by a constructivist-ecological approach (Liben, 2017), gender identity develops through a complex interaction between children and their environments. Observations

and interactions with others help children develop gender schemas, and these schemas guide children's gendered behavior, with the two processes shaping and reinforcing each other.

Development Of A Transgender Identity

Given the above evidence of young children's early ability to learn and attend to gender category information, how do transgender children develop a sense of gender identity that is not matched to their assigned sex? Research on this question is ongoing and has important social and political implications. Those who espouse an extreme version of a social learning view worry that prevailing social norms create social contagion effects that lead some adolescents to experience 'rapid onset gender dysphoria' (ROGD; Littman, 2018, 2019). Even though ROGD was identified only by surveying parents' perceptions of their children's experiences, not children's own experiences, this social contagion theory of transgender identity has been controversial as it has fueled public and professional concern about providing gender-affirming care for transgender children (e.g., puberty blockers that delay the onset of physical changes for teenagers) and motivates restricting the discussion of gender and sexual diversity in early elementary years.

In contrast to this contagion view, psychological scholars adopting a social cognitive perspective point to evidence that children develop a stable view of their gender identity at a young age, before puberty (J. Olson et al., 2015). From this cognitive perspective, one's gender identity can be largely endogenous to environmental factors. For example, one's gender identity as cisgender or transgender is moderately genetically heritable (M. Diamond, 2013). That said, the supportiveness of one's environment will play a large role in one's ability to come out and live authentically as a transgender person, with implications for mental health (K. R. Olson et al., 2016). In 2021, the American Psychological Association issued a resolution that the incongruence between sex and gender is not a mental disorder and has argued against efforts encouraging children to adopt a gender identity or expression more stereotypical of their sex assigned at birth (American Psychological Association, 2021).

Such policy statements are aligned with other research that is considerably more consistent with a social cognitive view than with a social contagion view of transgender identity. In a study of nearly 200,000 U.S. adolescents in 2017 and 2019, the percentage of those self-identifying as transgender has decreased somewhat over time (from 2.4% in 2017 to 1.6% in 2019, Turban et al., 2022). Furthermore, counter to claims that identifying as transgender is a socially attractive option for adolescents, those who identify as transgender reported more experiences with bullying and higher rates of attempted suicide (Turban et al., 2022).

In the psychological literature, research has made progress in understanding the development of a transgender identity. Before puberty, transgender children (those who are living as a gender different than their assigned sex) are indistinguishable from their cisgender peers and siblings in the degree to which they both explicitly and implicitly identify with their expressed gender identity (J. Olson et al., 2015). Newer research has created non-binary measures of gender identity. For example, the gender spectrum measure (Gülgöz et al., 2022) asks children to indicate 'how they feel on the inside' on a continuum from 'feeling totally like a boy' to 'feeling totally like a girl.' Research using this measure with gender-diverse samples of children ranging in age from 3 to 14 years reveals that both cisgender and transgender children show remarkably similar bimodality of identity (Gülgöz et al., 2022). The vast majority of transgender and cisgender boys identify as 'feeling like a boy inside' and the vast majority of transgender and cisgender girls identify as 'feeling like a girl inside,' although there is some variability in the strength of these feelings.

This research suggests that transgender children who socially transition and express their gender identity (as an identity that does not match their assigned sex) show stability of that identity over time. Five years after having socially transitioned, 94% of transgender children reported having the same gender identity, and an additional 3.5% identified as gender nonbinary (K. R. Olson et al., 2022; see also Hässler et al., 2022). The best available data thus suggest it is a relatively rare occurrence for children who decide to socially transition to revert to a cisgender identity later on, though such 'detransitions' do occur (Littman, 2021; Turban et al., 2021).

This emerging area of research has largely focused on the experiences of transgender children, yet studies are beginning to examine the nature of nonbinary identity. Not surprisingly, gender non-conforming youth show a more diffused distribution of responses across the gender identity spectrum measure (Gülgöz et al., 2022), consistent with their non-binary view of their gender. And yet there is individual variability in this group as to where individuals place themselves on that continuum. Other evidence suggests that both nonbinary and transgender children have a more flexible view of gender. Those who identify as transgender or nonbinary, for example, are less likely to categorize voices in gender-binary ways (Hope & Lilley, 2022). Also, although both transgender and cisgender children show an equivalent tendency to essentialize a person's sex, transgender children as young as age six show evidence of more flexibility in thinking about gender in non-essentialist ways (Gülgöz et al., 2022).

Finally, research has examined the degree to which transgender and cisgender children differ in their gender expression, and the tendency to have gender stereotypic traits, preferences, and behaviors. A key takeaway from this emerging body of research is that cisgender and transgender children are very similar in the strength of their gender identity and patterns of gender expression, even though they differ in whether or not their assigned sex at birth matches their gender identity (see DeMayo et al., 2022 for a review). Although cis and transgender groups show considerable within-group variability in their preference for traditionally feminine or masculine clothing, toys, and behavioral preferences, there are no mean differences between these groups. In other words, transgender children are just as likely to adopt gender-stereotypical preferences as their cisgender counterparts. And in line with the idea that gender identity and gender expression are distinct concepts, these are only moderately correlated for cisgender children (*rs* = 0.39-0.46) and tend to be uncorrelated for transgender children (Gülgöz et al., 2022).

Taken together, evidence suggests that transgender children develop an identity that is contained within the same binary gender classification that shapes cisgender children's identity development. More research is still needed to understand the experience of those who do not identify in gender binary terms. Nonetheless, the similarities between cisgender and transgender children suggest that our binary concept of gender still holds a powerful influence over how we categorize ourselves and others.

Development Of Gendered Expression And Preferences

Gender As An Essentialized Social Category

Children's ability to learn gender stereotypes and internalize them into their emerging view of themselves is facilitated by the tendency to essentialize gender. Gender essentialism is the inference that binary sex/gender categories have an inborn essence that causally shapes group differences in

gender expression, that is, in traits, preferences, and behaviors (Gelman & Fine, 2020; Gelman et al., 1986). When people see gender as essential, they are more likely to endorse binary conceptions of gender, believe that differences between men and women are large and immutable, and overestimate the extent to which people are homogenous within gender groups (K. Y. Lee et al., 2020). Developmental researchers have shown that young children essentialize gender by assuming that gender-based traits and preferences are inherently tied to one's gender category and thus unlikely to change (Gelman et al., 1986; M. G. Taylor et al., 2009). Although older children and adults tend to explicitly reject these ideas, at a more heuristic or implicit level, they often draw similar inferences (Eidson & Coley, 2014).

Are these essentialist beliefs about gender immutable or do they develop from experience? Research suggests that gender essentialist beliefs are sociocultural beliefs learned from our surroundings. In conversations with their children, mothers communicate and transmit their gender-essentialist beliefs in the way they talk with their children (Gelman et al., 2004). By implication, exposure to less binary or essentialized views of gender might shape people's essentialist thinking. For example, exposure to scientific evidence for gender similarities (vs. gender differences) in the brain reduces people's gender essentialist views (Şahin & Soylu Yalcinkaya, 2021).

Gender essentialist thinking is also related to people's experience with and observation of gender (non)conformity. Transgender and cisgender children hold similar beliefs that one's biological sex is essentialized, but are less likely to draw gender essentialist inferences based on simply hearing that one is a girl or a boy (Gülgöz et al., 2021). Beliefs about gender essentialism can also be affected by developmental changes in adulthood. For example, when women become mothers, the unique aspects of women's biology become apparent, leading people to have more essentialized views of mothers than of fathers (B. Park et al., 2015). Such gender essentialism beliefs set the stage for gender to be a defining feature for how people define themselves and each other.

Gendered Toy Preferences

Toy preferences are often used as a method to understand children's earliest gender-stereotypical behavior. Studies with very young infants often use a technique called preferential looking whereby interest is measured as the time infants spend looking at different stimuli, most often dolls and trucks. With older children, variables such as reaching for, interacting with, or time playing with various toys are often added as measures. Research using these methods suggests that children, on average, exhibit gender-stereotypic toy preferences by 12-18 months of age, with some research documenting such preferences as early as 3-8 months of age (Alexander et al., 2009).

Evidence of stereotypical toy preferences at young ages raises questions about the extent to which these reflect innate sex-linked preferences, rather than an infant's socialized conformity to prevailing gender roles. This is a controversial question with data supporting both claims. Evidence for innate sex differences is supported by comparative studies showing similar stereotypic toy preferences in non-human primates (Alexander & Hines, 2002). However, the search for a clear biological mechanism in humans has yielded mixed effects. There is some evidence of exposure to prenatal testosterone predicting girls' (but not boys') later preferences for stereotypically masculine behavior during preschool years (Hines et al., 2002; see also Hines & Davis, 2018). Moreover, children with congenital adrenal hyperplasia (a genetic condition involving increased prenatal adrenal androgen production) tend to exhibit more male-typed behavioral preferences in boys and girls. However, in another study, naturally-occurring variation of testosterone in amniotic fluid

among typically developing children did not correlate with gendered behavior or preferences (D. Spencer et al., 2021).

On the other hand, if these gender differences in toy preferences are socialized, then parents' broader endorsement of gender equality might lead to narrowing gaps in children's toy preferences over time. It also is debatable whether this is the case. Two meta-analyses report evidence of large effects for sex-stereotypical toy preference in young children (*d*s > 1.00) but disagree about whether these effects have changed over time. Todd et al.'s (2017) meta-analysis of 16 studies of children's free play (ages 1 to 8 years old) reported evidence that children's preferences to play with gender-stereotypic toys has decreased over time. In contrast, Davis and Hines' (2020) broader meta-analysis of 75 studies used different methods and reported no evidence for changes over a 50-year period.

Regardless of whether these sex/gender-linked preferences are present at birth, socialization processes likely magnify gender differences in stereotypic toy preferences. First, gender-stereotypical toy preferences increase during early childhood development, as shown by Davis and Hines' (2020) meta-analysis. Similarly, in a study with 5- and 12-month-old infants, only older infants showed a clear gender-stereotypic toy preference (Boe & Woods, 2018). Second, children's knowledge of gender stereotypes predicts their preferences for gender-stereotypical toys. For example, children's ability to associate different toys with girls' and boys' faces and voices (evidence of gender stereotyping that is first shown by girls at around 18 months) is related to their own preference for gender-stereotypical toys (Serbin et al., 2001). Third, children's exposure to gender-stereotypic toys at home predicts their tendency to play with gender-stereotypic toys in the lab (Eisenberg et al., 1985; Serbin et al., 2001).

Finally, pressures toward gender conformity appear to be stronger for boys than for girls. Several studies find that at or before one year of age, both boys and girls show a similar preference for dolls over trucks; the gender gap emerges as boys' interest in dolls decreases with age (Jadva et al., 2010). This finding parallels other evidence that boys more than girls exhibited an increase in stereotypical preferences during childhood (Goldberg & Garcia, 2016; Kanka et al., 2019). Such effects are consistent with other work revealing that stereotypes place larger constraints on boys' than on girls' behavior (Blakemore, 2003; Levy et al., 1995), a phenomenon discussed in the later section on prejudice.

Gendered Expectations From Others

Children learn gender stereotypes and internalize them into their emerging view of themselves from a young age. These stereotypes are partly socialized through parents' and teachers' differential expectations for boys and girls (Lytton & Romney, 1991; Morawska, 2020). Parents with more traditional beliefs about gender tend to have children with more gender-stereotypical beliefs about themselves and others, though these effects are typically small (r = 0.16; Tenenbaum & Leaper, 2002). Same-sex parents, on the other hand, who likely have less traditional beliefs than straight parents, tend to have children with less gender-stereotypical beliefs (Sutfin et al., 2008).

Gendered expectations can be communicated directly, but they might often be transmitted in more indirect ways. For example, parents exhibit more positive initial nonverbal reactions when their 18-23 month old infant engages with toys stereotypical for both the infant's and parent's gender compared to non-stereotypical toys (Caldera et al., 1989). Similarly, although 2-4 year old boys and girls do not vary in their interest in playing with puzzles, parents are more engaged and use more spatial language when playing with puzzles with their sons than with their daughters (Levine et al.,

2012). These differential patterns of communicating with boys and girls during stereotype-relevant activities might be a key mechanism by which stereotype-relevant self-beliefs and values are socialized (Gunderson & Levine, 2011; Tenenbaum & Leaper, 2003).

Finally, in terms of parents' role in socializing children, research often focuses more on mothers, as data from mother-child dyads tends to be easier to collect. However, the research on social learning of aggression suggests that fathers' differential treatment of sons and daughters plays an important role in producing gender differences. This finding parallels other work suggesting that fathers sometimes play a stronger role in shaping children's stereotypical beliefs and behavior (Croft et al., 2014; Galdi et al., 2017; Zhu & Grusky, 2022). In one study with 7 to 13 year old children, more gender-egalitarian contributions of fathers to household labor related to daughters' higher expectations for having a career outside of the home (Croft et al., 2014). More research is needed to better understand fathers' roles in gender socialization and how socialization might vary as a function of culture and ethnicity as well as in same-gender families.

Research documenting socialization effects often focuses on specific domains. Given the focus in this chapter on dominant-agency, competence, and communion, the review below focuses in on specific topics relevant to these domains where gender differences and stereotypes are often studied.

Gender-stem socialization

To a large extent, research on gender socialization has focused on academic interests and competencies. For example, expectancy-value theory (Wigfield & Eccles, 2000) maintains that children's academic choices are governed by the value they attach to different domains and their expectations of being successful there. Importantly for children's socialization, these expectations and values are shaped by cultural stereotypes about both gender and the domains themselves.

Research often applies expectancy-value theory to examine how girls and boys might be differentially socialized to excel at and pursue math and science (Gunderson et al., 2012; Levine & Pantoja, 2021). In U.S. data collected between 1984 and 2009, parents showed a small but significant tendency to assume that boys are better than girls at math (d = .24) and this stereotype predicted their daughters having a lower math self-concept and placing less value on math (Starr et al., 2022). Although both White and Asian parents showed evidence of endorsing these stereotypes, the socialization effect on their children's self-beliefs and attitudes was only present for White families, perhaps owing to cultural differences in valuing math and science more generally. These socialization effects may play an important role in explaining women's later underrepresentation in STEM careers (M.-T. Wang & Degol, 2013). Even in the absence of gender differences in math performance, girls begin to show lower self-concepts for math and higher math anxiety in later childhood (Levine & Pantoja, 2021). This gender gap in math self-concept is larger in countries with less gender diversity in STEM (Niepel et al., 2019), again suggesting that girls likely internalize these self-views from their environment.

Gender-dominance socialization

Concerning the socialization of dominant-agency, gender differences in aggressive behavior—particularly physical aggression (Eagly & Steffen, 1986; Bettencourt & Miller, 1996)—might be relevant. Although physically aggressive behavior is not the same as dominance, aggressive and

externalizing behavior are part of a broader dominance behavioral system (S. L. Johnson et al., 2012) and aggressive tendencies among children might be early signs of dominance-agency. As early as 18 months of age, boys are observed to be more physically aggressive than girls (Baillargeon et al., 2007; Maccoby & Jacklin, 1980). Furthermore, young boys (more than girls) are reinforced for dominant behavior by gaining status during competitive play (Adler et al., 1992).

The appearance of these differences in dominance and aggression both in early human development and in chimpanzees points toward possible sex-linked differences (Sabbi et al., 2021). However, there is also evidence of socialization magnifying these effects. Most notably, fathers who themselves are more gender stereotypic tend to use more physical control with their sons than their daughters, partly accounting for gender differences in children's aggressive behavior (Chang et al., 2003; Côté et al., 2007; Endendijk et al., 2017; Meier et al., 2009). Again, aggression is one facet of dominance, but such research suggests that different patterns of parental socialization can play a role in shaping gender differences in dominance-linked behaviors. Media also plays a role. Analyses of television programming reveal that male characters are more verbally and physically aggressive than female characters and that female characters are better-liked and more family-oriented than male characters (Aubrey & Harrison, 2004; Leaper et al., 2002; Sink & Mastro, 2017)

Gender-communion socialization

Relatively less research has focused on the socialization of communal values, traits, and interests. However, there is some evidence that mothers engage in more supportive talk with their daughters than with their sons (Leaper et al., 1998). Although early research suggested that perhaps mothers specifically use more emotion-related language when talking to their daughters than to their sons, a more recent meta-analysis does not support that conclusion (Aznar & Tenenbaum, 2020). Furthermore, although there is no sex difference in the preference for prosocial agents among infants (Margoni et al., 2022), girls show greater empathy and prosocial behavior than do boys by later childhood or early adolescence (Eisenberg et al., 1987; Kuhnert et al., 2017; Van der Graaff et al., 2018). Relatedly, by the time they enter school, girls are more likely than boys to value being nice and kind (Block, Gonzalez, et al., 2018). More research is needed to better understand the mechanisms by which gender differences in communal skills and values are internalized.

Gender Stereotypes In The Media

Parents and teachers can shape the internalization of gender-stereotypic self-views, but children can also learn gender stereotypes from the media, which tends to provide simplistic rules for behavior (Signorielli, 2012). Indeed, research reveals that gender stereotypes are deeply embedded in books, movies, and television programming. A large-scale linguistic analysis of word embeddings found that "female" is associated more with good, home, arts, and reading; whereas "male" is associated more with bad, work, science, and math (Charlesworth et al., 2021). Although the strength of these gender stereotypes in natural language seems to have weakened over the past two centuries, they are still quite prevalent in the media that adults and children are exposed to every day.

The evidence above speaks to the association of men and women to different roles, yet the same data also show how men's and women's communal and dominant-agentic traits are embedded in the media too (Charlesworth et al., 2021). Across these same corpora, the concept of 'male' is more strongly associated with being strong, independent, and tough; whereas 'female' is more strongly

associated with being retiring, pleasant, affectionate, and gentle. Interestingly, in this language analysis, there were vastly more female-typed traits (76%) than male-typed traits, perhaps an indication of androcentrism. That is, girls and women are described in the media in ways that differentiate them from boys or men; whereas men constitute the cultural default and thus need no added differentiation (Bailey et al., 2019, 2022). But again, some stereotypes (associations of female = arts/reading, male = science/math) are weakening over time, perhaps especially in child-directed media and books (Charlesworth et al., 2021).

This linguistic analysis of gender is designed to identify how different sex and gender categories are associated with words and concepts in differentiated ways. But other work highlights how women, compared to men, are simply underrepresented in many different types of media. For example, in film, less than 40% of main characters in top-grossing films are women, and 85% of films include more characters who are men than women. Speaking to the importance of intersectionality, an analysis of U.S. popular magazines found that individuals who are less prototypical of their race/ethnicity and gender categories, namely, Asian men and Black women, were less likely to be depicted relative to their White counterparts (Schug et al., 2017). Moreover, when girls and women are portrayed, the media regularly portrays them in stereotypic, discriminatory, or misogynous ways (United Nations Economic and Social Council, 2019; Ward & Grower, 2020). Such depictions of women uphold the status hierarchy and reinforce women's relatively lower status in society by communicating social norms. In children's programming, gender representation tends to be more balanced, but characters who are girls/women are still more likely to be sexualized and Black and Latino men are underrepresented compared to Black and Latina women (Geena Davis Institute on Gender in Media, 2022).

To what degree does exposure to media content shape children's and adolescents' own gender stereotypes and self-views? Meta-analyses suggest that greater exposure to screen media predicts boys and girls developing more stereotypic beliefs about appropriate behavior and more constrained career interests (Ward & Grower, 2020). These effects tend to be small but significant and are somewhat larger for experimental studies ($r = 0.24$) than nonexperimental studies ($r = 0.12$) in how media exposure shapes gender beliefs (Oppliger, 2007). For instance, experimental studies that present children with stereotypical or counterstereotypical examples of characters report changes in girls' career interests (Bond, 2016) and implicit stereotypes (Block, Gonzalez, et al., 2022). In addition, children's television can contain subtle displays of social approval for characters who conform to gender roles and exposure to these stereotypes can shape expectations of how one ought to behave (Lamer et al., 2022).

Increasingly, people are aware and recognize that unbiased representation matters for dismantling gender stereotypes. In 2017, 54% of European respondents indicated that "there is a problem with the way women are portrayed in media and advertising" (European Commission, 2017, p. 9). Given this acknowledgement of a problem, it is notable that with focused intention and effort, disparities in gender representation can change relatively quickly. For example, after a 2015 report made public that only 19% of interviewed experts in the news and 37% of the reporters doing the interviewing were women, the British Broadcasting Company launched a 50:50 project to achieve gender equality in representation. After two years, the majority of programs that joined this effort had reached this goal (Rattan et al., 2019).

In sum, children are exposed to gender stereotypic information in the media and the broader representation of men and women in stereotypic gender roles. As society develops more egalitarian attitudes, and these gender role expectations break down, there is the potential for children to

develop less stereotypic views of themselves and others. However, such changes happen at a slow rate without intentional efforts to make systemic changes.

Internalization Of Implicit Stereotypes Into The Self-Concept

Research on stereotype internalization has mostly focused on the way that exposure to stereotypic expectancies about gender roles can shape boys' and girls' self-perceptions and values. Typically, this work has focused on explicit beliefs, but increasingly researchers have been interested in how people learn and develop implicit stereotypic associations and how these might shape emerging views of the self in more automatic ways distinct from people's explicitly held values, beliefs, and intentions.

Balanced identity theory suggests that through a fundamental drive toward cognitive consistency, the development of implicit ingroup stereotypes alongside a group identity will shape or maintain an implicit self-association that is logically balanced with other beliefs (Greenwald et al., 2002). If a person holds an implicit association that math = male along with a gender identity of self = female, this person will tend to dissociate math from the self (math ≠ self; Nosek et al., 2002). Consistent with balanced identity theory, a meta-analysis yields empirical support for such balanced relations for both implicit associations and explicit beliefs, though the effect sizes of these balanced relations are consistently stronger at the implicit level (Cvencek et al., 2021).

These balance processes that shape self-associations might play a role in children's developing self-views. Evidence that implicit gender math stereotypes predict more stereotypic self-views has been found in children in early elementary school, in the United States, Chile, Germany, and Singapore (Cvencek et al., 2011, 2014; del Río et al., 2019; Steffens et al., 2010). Furthermore, at the country level, these implicit math/science = male associations are more prevalent in countries where the proportion of women majoring in STEM fields is lower (Miller et al., 2015), and are also related to higher gender gaps in 8th-grade math performance (Nosek et al., 2009).

Experimentally priming people with men and women in stereotypic gender roles also increases the strength of their implicit gender stereotypes, with possible downstream effects on career interest (Rudman & Phelan, 2010). Among university students, experience with successful same-gender role models weakened women's implicit stereotypes and also increased their STEM identification, effort, and engagement (Stout et al., 2011). Even among women who work in STEM contexts, the internalization of implicit STEM = male associations predicts lower organizational commitment (Block, Hall, et al., 2018). Women who have internalized these stereotypes might have greater difficulty feeling a sense of fit between who they are and domains that assume a masculine default as the prototype for success (Cheryan & Markus, 2020; Schmader & Sedikides, 2018).

In sum, the role of implicit stereotypes in shaping self-views is intriguing. Balanced identity theory implies that people's more heuristic system for learning associations automatically encodes gendered patterns in the world around them in ways that are distinct from their more explicitly held motivations or beliefs about their abilities. And yet, these implicit associations can play a role in shaping self-beliefs that predict later choices and decision-making. That said, this is still a rather small literature, and the explanatory power of implicit associations over explicit stereotypes and self-views remains unclear.

Role Congruity And Goal Congruity Theories

As described previously, social role theory asserts that gender stereotypes form as a function of observing that men and women are often sorted into different roles in society (Eagly, 1987; Eagly & Wood, 2012). Expanding on the fundamentals of social role theory, goal congruity theory (Eagly & Karau, 2002) explains how gender stereotypes are internalized in ways that lead to stereotype-consistent choices. That is, perceivers with knowledge of gender stereotypes will be attuned to how others' actions are congruent or incongruent with the stereotypes about their gender group. They will have positive attitudes toward those who conform to gender stereotypes, and negative attitudes toward those who do not. Goal congruity processes are thought to provide the social reinforcement that shapes developing self-views and expression of gendered behavior (Bussey & Bandura, 1999).

Assuming that part of that socialization is to shape girls' and boys' different values, goal congruity theory (Diekman et al., 2020) then maintains that people tend to self-select into roles that are congruent with their values. For example, men express less interest in careers in the care economy, such as teaching and nursing, likely because they are less likely than women to internalize communal values (Block, Croft, et al., 2018). As discussed above, these gender differences in values emerge early in elementary school and are predictive of young girls' expectation that they will prioritize family over their career later as adults (Block, Gonzalez, et al., 2018).

Gender differences in internalized communal values might partially explain women's relatively lower interest in pursuing careers largely occupied by men such as in engineering, technology, or leadership. Communal values can be seen as incongruent with the masculine default culture that is associated with STEM careers, repelling both men and women who endorse more communal values (Brown et al., 2015). Subtle signals to communal stereotypes are communicated by those in power (Joshi & Diekman, 2022), the structure of work assignments (Joshi et al., 2022), or whether the culture supports a fixed or growth mindset (Fuesting et al., 2019). Finally, efforts to rebrand STEM careers in ways that afford communal values can foster greater interest in these careers among young women (Belanger et al., 2020).

Another route to increasing goal congruity is to provide women with salient successful role models who counteract stereotypes (Dasgupta & Asgari, 2004; Dasgupta & Stout, 2014; Stout et al., 2011). Do such role models need to share one's gender to be influential? Feeling some sense of personal similarity to a role model can be important for attracting young women into STEM fields, although demographic representation might be important to keep women there (Cheryan et al., 2011). Furthermore, research suggests that at a younger age, ingroup role models might be a stronger cue of fit. In a study of children between the ages of 6 to 12 years old, only the gender of the role model, and not the goal affordances of the job, predicted girls' and boys' differential interest in STEM fields (Hayes et al., 2018). Early in development, children and adolescents might use gender as a simple cue to self-concept fit and belonging; later the fit to one's goals and values might be more important for career choice.

Summary

Gender differences in self-views and values are often larger than observed differences in ability or behavior. These discrepancies set the stage for considering how gender stereotypes are learned from one's environment and internalized into one's self-concept to guide gendered preferences and behavior. These processes begin early in childhood and are facilitated by the degree to which one categorizes oneself in a binary or essentialized gender category. Future research is needed to better

understand the mechanisms that underlie people's internalization of gender stereotypes, and how internalization affects gendered preferences and choices that maintain gender hierarchies.

V. GENDER PREJUDICE

Defining Gender Prejudice

The last two sections discussed stereotypes as cognitive schemas that contain information linked to gender categories. Distinct from gender stereotypes is gender-based prejudice or sexism. Although gender-based prejudice can take different forms, each form has in common a tendency to reinforce gender inequality. This section describes different types of prejudiced attitudes toward women, men, and gender minorities, reviews the origins of these attitudes and beliefs, and discusses how they have varied over time and across culture.

Traditional Versus Modern Sexism

In psychology, prejudice has historically been defined as a negative attitude or antipathy toward a group (Eagly & Chaiken, 1993; Greenwald & Banaji, 1995). In the 1970s, following political and ideological changes in Western societies that resulted in more women entering social psychology, research on gender attitudes emerged and gained prominence (see review by Glick & Rudman, 2010). Guided by the notion of prejudice as antipathy, early conceptualizations and measures of sexism assumed that people hold negative and hostile attitudes about women (Lips, 1988; Matlin, 1987; Spence et al., 1973). Such assumptions likely stemmed from evidence that women experience discrimination (Eagly, 2004). Decades later, we understand that gender-based prejudice includes both subjectively favorable and unfavorable attitudes toward both women and men.

Traditional sexism

Also called "old-fashioned" sexism, traditional sexism reflects people's beliefs about the gender roles and attributes that women and men should fulfill in society. These include blatant and explicit beliefs that leadership and intellectual roles are for men while caregiving and housekeeping roles are for women (Spence et al., 1973). Thereby, traditional sexist views served to uphold a traditional division of labor and maintain unequal treatment of women. Even in psychology textbooks in 1980's, students learned that "Not only are males viewed as different from females; they are viewed as superior to them" (Lips, 1988, p. 8) and that "By the time they reach adulthood, most women agree with most men that males are superior" (Matlin, 1987, p. 269).

Pioneers such as Spence developed early tools to measure attitudes toward women's and men's rights and gender roles prevalent in the 1970s. The *Attitudes Toward Women Scale* asked participants to rate items including "There are many jobs in which men should be given preference over women in being hired or promoted," and "Sons in family should be given more encouragement to go to college than daughters" (Spence et al., 1973; Spence & Helmreich, 1972b). These sexist attitudes predicted negative reactions to competent women (Spence & Helmreich, 1972a), men's greater aggression toward women (Herrero et al., 2017; Scott & Tetreault, 1987), and greater tolerance of men committing domestic abuse (Hillier & Foddy, 1993). The scale can be viewed as

measuring attitudes toward women's rights rather than attitudes toward women themselves and thus is unrelated to gender stereotypes, gender identity, or women's career choices (see review by Spence, 1999). A large-scale cross-national study of 57 nations found that countries with more negative attitudes toward women as political or business leaders, also have greater systemic gender inequality three years later (Brandt, 2011).

Modern sexism

Traditional sexism weakened after the 1970s as political movements to promote greater equality led prejudice to become less blatant and more covert and subtle (e.g., McConahay, 1986). In public opinion polls over the latter half of the 20th century, U.S. respondents were increasingly less likely to disapprove of women in nontraditional roles. The percentage of respondents who openly disapproved of married women working outside the house steadily decreased from 72% in 1937 to 40% in 1969 to 18% in 1998 (Saad, 2017). Yet, despite this seeming trend toward less negative attitudes toward nontraditional women, discriminatory behavior reflecting an antagonistic view toward women making political and economic demands persisted in the 1980s and 1990s. For example, in one study, managers who were women, relative to men, received lower salary increases despite similar work experience and education in Fortune 500 U.S. companies (Swim et al., 1995). Women more than men reported personally facing gender discrimination and both groups reported seeing more discrimination directed toward women than men (Kobrynowicz & Branscombe, 1997).

Ongoing discrimination despite an apparent reduction in traditionally sexist beliefs led to new ideas and measures of modern sexism in the 1990s. Modern sexism is characterized by the denial of continued discrimination against women, antagonistic feelings toward women making political and economic demands, and a lack of support for policies benefiting women (Swim et al., 1995). By denying continuing discrimination against women, people high in modern sexism perceive women's individual shortcomings to cause their social stagnation, rendering action to improve women's advancement obsolete. The *Modern Sexism Scale* assesses a tendency to disagree with items such as "Women often miss out on good jobs due to sexual discrimination" and "It is easy to understand why women's groups are still concerned about societal limitations of women's opportunities" (Swim et al., 1995).

Both women and men who endorse modern sexist beliefs and thus negate the existence of discrimination against women are more likely to express gender bias, for example, by evaluating a fictitious veterinarian as more competent and worthy of a higher salary if the person is a man rather than a woman (Begeny et al., 2020). In the context of the #MeToo movement, those who endorse modern sexism are more likely to deny pervasive sexual misconduct and oppose workplace harassment training (A. Archer & Kam, 2020). Beliefs that gender bias is a thing of the past uphold the gendered status quo.

Ambivalent Forms Of Sexism

Traditional and modern measures of sexism tap into prejudice against women who step out of traditional gender roles but do not assess attitudes toward gender groups more broadly. An advancement in sexism research was the recognition that a focus exclusively on negative attitudes is too narrow. The theory of ambivalent sexism (Glick & S. T. Fiske, 1996, 2001b) asserts that beliefs about gender groups are marked by an ambivalence encompassing both positivity and negativity

toward women (with later extensions to attitudes toward men). Such beliefs help to maintain the gender hierarchy.

Ambivalent attitudes toward women and men

According to ambivalent sexism theory, culturally ingrained attitudes toward women and men stem from the coexistence of a structural power difference that favors men and heterosexual interdependence whereby men and women depend on each other to satisfy their needs (e.g, sexual/reproductive, household, financial; Ridgeway & Correll, 2004; Rudman & Glick, 2021). As a result, women and men engage in ongoing interaction and cooperation. At the same time, women's entry into careers largely occupied by men has led to increased competition.

The coexistence of power differences, interdependence, and opportunities for competition lead to two forms of complementary sexism toward women: the negative dimension of hostile sexism and the seemingly favorable, yet patronizing dimension of benevolent sexism (Glick & S. T. Fiske, 1996, 2001b). The *Ambivalent Sexism Inventory* (Glick & S. T. Fiske, 1996) includes items measuring both hostile sexism (e.g., "The world would be a better place if women supported men more and criticized them less") and benevolent sexism (e.g. "In a disaster, women ought to be rescued before men").

Hostile sexism reflects the antagonist ideology that expresses hostility toward women in non-traditional roles who are perceived as challenging men's power (e.g., feminists are untrustworthy, complaining, and manipulative). In this way, hostile sexism is similar to modern sexism. Benevolent sexism, in contrast, reflects seemingly positive views toward women in traditional roles who are perceived to deserve men's admiration and protection (e.g., housewives are wonderful and pure). These beliefs are rooted in the 'women are wonderful' attitude whereby women, as a group, are evaluated more positively and morally superior to men (Eagly & Mladinic, 1994; Glick et al., 2004). The ambivalent belief that women are good and pure, but also fragile, can be problematic as it patronizes women as warm yet incompetent creatures who need to be protected and provided for by men. It thereby incentivizes women to accept traditional roles that do not challenge the gendered status quo.

Although ambivalent sexism was originally proposed as a theory to understand prejudice toward women, an emerging body of research assesses ambivalent attitudes toward men (Glick & S. T. Fiske, 1999). In this framework, hostile attitudes toward men include resentment of their greater structural power, and negative attitudes that portray men as power-hungry, juvenile, and sexual predators (e.g., "When it comes down to it, most men are really like children"). Benevolent attitudes toward men include more positive views of men as protectors and providers, and the belief that men ought to be cared for by women at home (e.g., "Men are mainly useful to provide financial security for women"; *Ambivalence Toward Men Inventory,* Glick & S. T. Fiske, 1999).

Ambivalence maintains the gender hierarchy

Ambivalent sexism theory advanced prior work on sexism not only by incorporating both negative and positive attitudes but also by suggesting that these beliefs and associated stereotypes discussed earlier maintain the gender hierarchy. Although less easily recognized as sexism, flattering benevolent beliefs can have especially pernicious consequences on women's outcomes (Salomon et al., 2015). For example, exposure to benevolent sexism can decrease women's cognitive performance (Dardenne et al., 2007, 2013), lead women to de-emphasize their career-related aspirations (Barreto

et al., 2010), and undermine women's collective action for social change (Becker & Wright, 2011). In these same studies, exposure to hostile sexist beliefs does not have the same effects, and episodes of hostile sexism, for example, increases women's collective action.

The system justifying functions of benevolent beliefs are not constrained to women. People in general, but particularly conservative women, with greater motivation to justify the social system endorse more benevolent attitudes toward men but not more hostile attitudes (Russo et al., 2014). Furthermore, benevolent (but not hostile) sexism toward men predicts holding more negative attitudes toward gay men as a subgroup (Sakallı-Uğurlu & Uğurlu, 2016) and judging men who are victims of sexual assault more harshly (Chapleau et al., 2008).

In this way, hostile and benevolent beliefs—toward both women and men—work alongside each other to maintain and perpetuate gender inequalities. Across cultures, hostile and benevolent sexist beliefs toward women and men are almost universally positively correlated (Glick et al., 2000, 2004), suggesting that together they capture a latent preference to maintain a traditional gender hierarchy. Indeed, across cultures, hostile and benevolent beliefs toward women and men relate to the structural gender inequality in a given nation (Glick et al., 2000, 2004). Taken together, research on ambivalent sexism suggests that positive and benevolent attitudes temper and disarm women's resistance to inequality, which might otherwise arise from hostility. The result is a perpetuation of a gender hierarchy in which men have more power outside of the home, but women are placated with a sense of moral superiority and responsibility for care in the home.

Perceiving Men As Targets Of Oppression And Zero-Sum Beliefs

Research on gender prejudice has long focused on women as the targets of gender bias. Consistent with the fact that the movement toward gender equality has met resistance, research has started to measure people's emerging belief that men, rather than women, are the key victims of sexism (Carian, 2022; Zehnter et al., 2021). For example, a Pew Research Poll found that 22% of adults (28% men, 17% women) report that women's gains in society come at a cost to men (Horowitz & Igielnik, 2020). Similarly, among men more than women, the perception that gender discrimination against women is decreasing over time is accompanied by an increasing view that men are targeted by gender discrimination (Kehn & Ruthig, 2013). Importantly, however, these beliefs about the prevalence of inverse sexism against men contradict the consensus in social sciences that women continue to be structurally oppressed on account of their gender (Ridgeway & Correll, 2004).

Sexism shift beliefs entail a social cognitive factor, called zero-sum thinking, whereby women's gains are seen as necessarily involving men's losses. Granting that limited resources sometimes do create zero-sum decisions, there is also evidence of motivated reasoning behind these beliefs. Men typically endorse this perspective more than women (Ruthig et al., 2017; Wilkins et al., 2015). Zero-sum beliefs are what differentiate people who endorse sexism shift beliefs from those who believe that all genders can suffer from some form of gender discrimination. The *Belief in Sexism Shift Scale* measures for example, the belief that men are more oppressed than women (e.g., "Giving women more rights often requires taking away men's rights"; Zehnter et al., 2021). U.S. respondents endorse these sexism shift beliefs at similar levels as modern sexism and hostile sexism (Carian, 2022; Zehnter et al., 2021). Typically, men show higher mean levels than women, as do younger people and people from lower-middle-class backgrounds (Carian, 2022; Zehnter et al., 2021). These beliefs predict attitudes toward current cultural and political issues. Greater endorsement of sexism shift relates to the view that women make false rape accusations and opposition to Hilary Clinton's

presidential bid in 2016 (Carian, 2022), as well as more disrespectful and paternalistic treatment of women in highly competitive workplaces (Kuchynka et al., 2018).

Thus, by holding beliefs that men are now key targets of sexism, people subtly downplay women's abilities and merit in their societal advancement, oppose efforts to overcome bias and discrimination against women, and uphold a gender hierarchy that privileges men over women (Zehnter et al., 2021).

Explicit And Implicit Sexism

Before the 2000s, measures of sexism almost exclusively relied on people's self-reports. These measures have the advantage of being face valid but can be subject to social desirability concerns. When participants are either unable or unwilling to report their attitudes, self-report measures fail to accurately capture actual beliefs and prejudice (Gawronski & Hahn, 2019). As norms have become more egalitarian over time, advances in our understanding of and the ability to measure implicit prejudice have led to new research on implicit gender attitudes.

Early efforts to capture implicit sexism masked the intent of the measure by having people complete short sentence stems with what spontaneously came to mind (von Hippel et al., 1997). Subsequent work revealed that men who finished sentences about women (e.g., "Jenny went home to cook dinner…") in a more sexist way (e.g., "for her husband", "naked") rather than a less sexist way (e.g., "after work"), showed more nonverbal dominance and sexual interest during an interaction with a woman (Logel et al., 2009).

More recent implicit measures capture the more automatically activated valenced attitudes toward gender groups, often using the Implicit Association Test discussed earlier (IAT; Greenwald et al., 1998; Nosek et al., 2007). With the IAT, attitudes toward gender groups are captured by the speed with which one can accurately categorize stimuli into target categories of gender (e.g., woman vs. man) combined with valenced categories (e.g., good vs. bad) in both a compatible and incompatible manner. Faster responses when categorizing stimuli for the woman + good/man + bad task as compared with the woman + bad/man + good task indicate a more positive attitude toward women than men. Thereby, the IAT allows for a direct comparison of valenced attitudes toward women and men, unlike most explicit measures that assess attitudes toward either women or men.

In many intergroup contexts, the marginalized group is often viewed more negatively than the majority group. For gender, in contrast, both men and women have more positive implicit attitudes toward women than men (Rudman & Goodwin, 2004). Interestingly, however, young boys do not start with this pro-women attitude. Both boys and girls as early as age 5 hold more favorable implicit and explicit attitudes toward their own gender group, but by adolescence, boys' own-gender preference declines as they develop a more positive attitude toward women (Dunham et al., 2016). Girls and women, in contrast, show relatively stable implicit and explicit own-gender preference across development.

The gender stereotypes attached to the traditional notions and social roles of women and men likely shape the development of the more positive implicit attitudes people have toward women than men as they grow older (Baron et al., 2014). As reviewed before, stereotypes of men are more negatively valenced (e.g., dominant, aggressive), whereas stereotypes of women include more positively valenced communal and prosocial traits. Relatedly, the increasing competition between men starting in adolescence alongside the emerging associations of men and violence might

underlie men's declining positivity toward their ingroup (Rudman & Goodwin, 2004). The fact that men's own-group implicit attitude becomes more negative as they grow older and gain economic and political power is a unique intergroup phenomenon only found with gender relations.

Objectification And Its Consequences

An aspect of prejudice more generally is the tendency to dehumanize members of the outgroup (Ellemers & Scheepers, 2025). Concerning gender, dehumanization comes in the form of objectifying women, and to a lesser extent men, by viewing their bodies as objects. When objectified, people are denied their full mental capacities, lived experience, and sense of agency; a frame that can justify negative and sometimes violent forms of treatment (Haslam & Loughnan, 2014).

Objectification of women

One aspect of straight men's and women's sexual interdependence is that people—either due to sexual selection pressures and/or sociocultural learning—emphasize aspects of women's physicality that signal beauty, youth, and fertility (Morris et al., 2018). The emphasis on physical appearance can lead to prejudice and devaluation. For example, when asked to focus on women's appearance or bodies rather than their personhood, participants view women as less human, warm, moral, or competent (Heflick et al., 2011; Heflick & Goldenberg, 2009; Loughnan et al., 2010). Similarly, people implicitly associate images of sexualized women, but not sexualized men, more with an animal than with human concepts (Vaes et al., 2011). Neuroscience evidence reveals that such devaluation is particularly likely among men with hostile sexist beliefs. When straight men viewed sexualized women, those higher in hostile sexism exhibited lower activity in the inferior ventral medial prefrontal cortex (mPFC), an area associated with humanization and empathy (Cikara et al., 2011).

According to objectification theory (Fredrickson & Roberts, 1997), living in a culture that objectifies women's bodies can damage women's views about themselves and their bodies. When a society ubiquitously treats women merely as bodies that exist for others' pleasure, as illustrated by both the sexualizing male gaze (Gervais et al., 2012) and the objectifying portrayal of women in the media (Ward, 2016), it can lead women to adopt an observer's perspective about themselves and their bodies. This form of self-objectification is linked to mental health problems such as eating disorders, depression, or sexual dysfunction, all more prevalent among women than men (Moradi & Huang, 2008).

Self-objectification can even impair women's academic performance. When asked to try on a swimsuit (i.e., high objectification) rather than a sweater (i.e., low objectification), women, but not men, reported greater body shame and lower self-esteem, and also showed lower math performance (Fredrickson et al., 1998). Further research has revealed that self-objectification can have negative consequences for women's health (e.g., less use of sexual protection; Impett et al., 2006; Parent & Moradi, 2015), cognitive and behavioral functioning (e.g., worse ball-throwing performance; Fredrickson & Harrison, 2005), and social and environmental outcomes (e.g., less engagement in gender-based social activism; Calogero, 2013; see review by T.-A. Roberts et al., 2018).

Objectification of Men

Research on the objectification of men reveals a nuanced pattern of effects. On the one hand, when men and women are displayed in an objectified way, people dehumanize men less than women (Vaes et al., 2011) and men generally show lower levels of self-objectification than women (Moradi & Huang, 2008). On the other hand, when men do find themselves in self-objectifying situations more common for women, they can show similar negative responses. For example, when asked to wear a Speedo (i.e., high objectification) instead of loose-fitting swim trunks (i.e., low objectification), men show increased body shame, drive for thinness, and impaired math performance, just as women do (Hebl et al., 2004; Register et al., 2015). The stronger internalization of a leanness-muscularity ideal for men is also predictive of their higher body surveillance and poorer body image (Frederick, Pila, et al., 2022). Indeed, a meta-analysis of 54 studies reveals that consuming sexualizing media relates to higher self-objectification among both women and men (r = 0.19; Karsay et al., 2018)

Objectification and intersectional identities

Patterns of objectification vary by identities that intersect with gender. Concerning age, objectification is heightened at the onset of puberty (Daniels et al., 2020) and reduces as women grow older (Frederick, Pila, et al., 2022; Montemurro & Gillen, 2013), with potential benefits for middle-aged women in the workplace (Isopahkala-Bouret, 2017). Concerning sexual orientation, gay men (like straight women) are more objectified than straight men, and report greater self-objectification, body shame, body dissatisfaction, and eating disorders (Frederick, Pila, et al., 2022; Martins et al., 2007; Wiseman & Moradi, 2010). Lesbian women, in contrast, report higher levels of body satisfaction than straight women (Frederick, Pila, et al., 2022; Morrison et al., 2004).

Finally, the role of race/ethnicity in objectification experiences is complex (see e.g., Frederick, Schaefer, et al., 2022). Black women report lower levels of media internalization and more positive body images than women from other backgrounds, whereas Asian women are most vulnerable to internalizing thinness-related media messages (Frederick, Schaefer, et al., 2022). Among men, the lean-ideal and muscular-ideal internalization seems to be particularly strong among Black men (Frederick, Schaefer, et al., 2022; Goodwill et al., 2019). Yet, when self-objectification is cued in the lab, women and men regardless of race/ethnicity experience similar cognitive impairments (Hebl et al., 2004). Thus, an intersectional perspective yields a nuanced understanding of when, why, and for whom societal objectification is linked to negative outcomes.

Prejudice Against LGBTQ+ People

Most research on gender-related prejudice concerns prejudice against women, and to a lesser degree, men. However, gender-based prejudice also can be understood as prejudice against those who are not heterosexual or cisgender. Stigma based on sexual and gender identity and its consequences is more extensively discussed elsewhere; this section only briefly describes prejudice based on sexual orientation and gender identity.

Anti-LGB prejudice

Prejudice based on sexual orientation reflects and serves to maintain Lesbian, Gay, and Bisexual (LGB) individuals' relatively lower power in social hierarchies and often derives from negative attitudes toward their non-conformity to traditional gender norms and roles (Herek, 2009). In contrast to traditional forms of sexism, anti-LGB prejudice is unique as it involves a characteristic

that can often be concealed, is sometimes perceived to be controllable, and that some people may fear having associated with themselves (see Hebl et al., 2010).

Research on anti-LGB prejudice has a comparably short history since homosexuality was only removed from the *Diagnostic and Statistical Manual of Mental Disorders* as a mental disorder in 1973 (American Psychiatric Association, 1973). In the last 50 years, public opinion has shifted dramatically in Western nations, with significant decreases in both implicit and explicit negative LGB attitudes (J. Anderson & Maugeri, 2022; Charlesworth & Banaji, 2019; Kite et al., 2021). For example, the percentage of U.S. respondents who believe that gay or lesbian relations should be legal increased from 32% in 1986 to 79% in 2021 and the percentage of those in favor of equal rights in job opportunities increased from 56% in 1977 to 93% in 2019 (Gallup Inc, 2022). But while people have adopted increasingly favorable attitudes toward LGB rights, evidence of interpersonal prejudice remains (Herek, 2009). An elegant field-based experiment asked research assistants (both women and men) to apply in different Texan stores for a retail job, either wearing a hat saying "Gay and proud" or "Texan and proud." Those presented as gay were just as likely to be called back for an interview, but the coding of those interactions revealed more interpersonal negativity, such as ending the conversation prematurely, less eye contact, and less signaled interest in them as a job candidate (Hebl et al., 2002).

Research finds that demographic characteristics and social norms might shape these negative attitudes. Straight men hold more anti-gay prejudice than straight women (Herek, 2000), a gender difference that persists (and is stronger toward gay men than toward lesbians). In their meta-analysis, Kite and colleagues (2021) find that the root of men's particularly strong anti-gay prejudice lies in the rigid male gender roles that prescribe men to assert masculinity and high status. Cross-cultural research with data from over 215,000 participants from 97 nations highlights the critical role of social norms by showing that religious attendance is uniquely related to greater prejudice against gay men, even in tolerant societies that generally disapprove of prejudice toward LGBs (Hoffarth et al., 2018).

Cissexism

Cissexism describes prejudice or discrimination toward non-cisgender people including transgender and nonbinary people. Discrimination against transgender people is all too common. One large U.S. survey with almost 6,500 transgender respondents revealed that 90% of those surveyed reported experiencing harassment or discrimination on the job, 53% reported being verbally harassed or disrespected in public accommodations such as hotels, 19% reported having been refused a home or apartment, and 19% report being refused medical care because of their gender identity/expression (National Center for Transgender Equality, 2011). These numbers were even higher among African American respondents, who often report facing anti-trans prejudice combined with structural racism.

Anti-transgender prejudice is often framed in terms of the ontology of gender/sex, specifically the belief that sex should equal gender (Schudson & Morgenroth, 2022). The most widely used scale to assess prejudice against gender minorities, the *Genderism and Transphobia Scale* (Hill & Willoughby, 2005), captures ontological beliefs about the nature of gender/sex alongside affective prejudice and behavioral discrimination (e.g., "People are either men or women," "If I encountered a male who wore high-heeled shoes, stockings, and makeup, I would consider beating him up"). In contrast to other gender attitude scales that assess beliefs about gender roles, this scale taps into the perceived

legitimacy of transgender identity (see also Schudson & van Anders, 2022 for a more recent measure).

Such anti-trans prejudice is more prevalent among cisgender men than women and is predicted by political variables (e.g., political conservatism, right-wing authoritarianism), essentialist views of gender, and negative attitudes toward sexual minorities more generally (Schudson & van Anders, 2022; Willoughby et al., 2010; Worthen, 2016). Essentialist beliefs about gender predict people's prejudice toward transgender people and support for legislation that mandates them to use restrooms corresponding with their biological sex (Callahan & Zukowski, 2019; S. O. Roberts et al., 2017). Experimental intervention studies also show that reducing essentialist beliefs increases support for transgender people's rights through reduced prejudice (Ching & Xu, 2018; Wilton et al., 2019).

Cultures vary widely in their recognition and the meaning attached to gender minority individuals. Among many indigenous communities, gender has always been conceived in more fluid, non-binary, and dynamic ways (Fieland et al., 2007). In some cultures, individuals who live outside the binary have long been recognized or considered sacred (e.g., *two-spirit* individuals among Indigenous Northern Americans, and *hijras* within Hinduism). People in many Western nations, by contrast, have only recently begun to recognize gender diversity and have been slower in accepting nonbinary and transgender individuals (Lang & Kuhnle, 2008). However, having personal contact with transgender individuals is related to lower prejudice (Hatch et al., 2022; Willoughby et al., 2010). Such research suggests that educational efforts and greater contact with transgender or nonbinary individuals might be effective at reducing this form of prejudice, although more research is needed in this area.

Origins Of Gender Prejudice

Having provided an overview of what gender prejudice is and how it has been measured, the next section reviews various perspectives on the origins of gender-based prejudice. This review considers psychological, sociological, and evolutionary approaches, which theorize that gender prejudice may result from gender stereotypes, gendered social hierarchies, or the violation of socially constructed beliefs and norms surrounding gender identities.

Gender Prejudice As An Outgrowth Of Stereotypes

Gender prejudice can consist of both beliefs and attitudes, both of which are often tied to gender stereotypes. As reviewed earlier, gender stereotypes describe women as more communal than men and men as more dominant-agentic than women (Eagly et al., 2020). The valenced content of these stereotypes likely contributes to people's attitudes toward women and men, more broadly. For example, women's communality stereotype includes many traits (e.g., gentle, helpful, moral) that are positively valenced, contributing to the 'women are wonderful' effect (Eagly & Mladinic, 1994).

Although men have a positive agency stereotype (e.g., assertive, independent) that is strongly related to power and respect (Wojciszke et al., 1998), their negative agency stereotype (e.g., dominant, aggressive) conveys the idea of pursuing power at all costs. These stereotypes of men as dominant and aggressive have a negative connotation that combined with the more positive stereotypes of women leads people of all genders to report greater liking for women than men. These patterns manifest across cultures (Glick et al., 2004). Although the 'women are wonderful'

stereotype is stronger in less gender-egalitarian countries (Krys et al., 2017), this seems to be due to people's more negative evaluations of men rather than their more positive evaluations of women. The dominant-aggressive expectation for men in more traditional societies might also relate to these cultural differences in gender stereotypes.

People not only have prejudicial attitudes and stereotypical beliefs about men and women generally, but also about subgroups of these larger gender categories. In their stereotype content model, Fiske and colleagues (S. T. Fiske, 2018; S. T. Fiske et al., 2002) describe how relationships between social groups inform cognitive stereotypes, but they also articulate how these stereotypes then evoke particular emotional prejudice toward these subgroups. Rooted in a group's position in status hierarchies and its cooperative or competitive interdependence with other groups, people cluster subgroups of women and men along the warmth and competence dimensions. Depending on people's cognitive image of a specific subgroup, this subgroup is confronted with different types of prejudice.

The subgroups of housewives and traditional women who accept their lower status in the gender hierarchy and support male agency are rated as high in warmth but low in competence. Subgroups in this cluster are liked but disrespected and thus face "pitying" prejudice (Glick & S. T. Fiske, 2001b, 2001a). In the opposite quadrant, feminists and career women who advance their interests and compete with men for power are stereotyped as low in warmth but high in competence. Subgroups in this cluster are respected but disliked and thus face envious prejudice (Glick & S. T. Fiske, 1996; Spence & Helmreich, 1972b). As becomes clear from the four quadrants, people often simultaneously hold positive and negative (and thus ambivalent) attitudes toward a subgroup.

Gender Prejudice As An Outgrowth Of Gendered Hierarchies

One view of prejudice, against any group, is that it is the attitudinal component of social bias. In this view, the stereotypes about the group provide the supporting beliefs that underlie and perhaps even justify one's attitudes. Other theories of gender prejudice go beyond this account to delve deeper into the role of social hierarchy. Prior sections discussed how stereotypes are beliefs that can help maintain social hierarchy; the following sections will also review how prejudice provides an affective reaction to people who uphold, step outside of, or seek to alter that hierarchy.

Sociologists and psychologists have agreed that sex/gender is a cultural tool that organizes social relations hierarchically (Ridgeway, 1991; Sidanius & Pratto, 1999). In most societies and cultures, men are perceived to have more status than women, given their greater power as economic providers and societal leaders. Once this perception of status and power differences in social interactions is in place, any characteristic, trait, or behavior associated with the high-status group becomes a marker of status, importance, and value in itself (Ridgeway, 1991; Ridgeway et al., 2009; Schmader et al., 2001). Thus, because people perceive that "maleness" is associated with having greater interpersonal power, being a man takes on status value.

Evidence of the assumed status value of men can be found in how salaries of occupations drop when more women enter that occupation. For example, U.S. census data from 1950 to 2010 provide causal evidence that a 10% increase in the proportion of women in an occupation leads to a 7-8% decrease in average wages in the concurrent census year and a 9-14% decrease over ten years (Harris, 2022). Status beliefs based on an apparent nominal social difference—such as gender or race/ethnicity—persist in contemporary Western societies, even after the historical inequality in

resources that initially created them disappeared, such as when industrialization or women's entry into the paid labor force transformed gender relations (Ridgeway, 2015).

The persistent belief in women's and men's differing status value gives rise to gender-based prejudice aimed at maintaining the status hierarchy. Jackman (1994) describes how gender roles become the primary means of maintaining the gender hierarchy and enforcing paternalistic ideologies. The maintenance of this hierarchy, including buy-in from women, is particularly important for gender relations given the necessary interdependence between women and men. As a result, women face oppression in the guise of kindness, and the inflexibility of gender roles is justified by strong beliefs about biological sex differences in reproduction (see also Eagly, 1987; Eagly & Wood, 2012).

These gender-specific role assignments then determine which groups of women and men become targets of hostile and benevolent beliefs (Glick & S. T. Fiske, 1996, 2001b). Consistent with ambivalent sexism theory, women and men who challenge men's higher social status by entering non-traditional roles can face hostility. In contrast, women and men in traditional roles are more likely to face benevolence and approval, as their behavior is aligned with societal status value beliefs. In concert, the positive reinforcement women receive for fulfilling feminine ideals may co-opt them into accepting the status quo, making them unwitting accomplices in upholding the gender hierarchy (Jackman, 1994).

Backlash Elicited By Gender Nonconformity

At the root of gender prejudice is a motivation to maintain and reinforce traditional gender roles. This often is examined in terms of vertical gender segregation, where men have greater status and power than women, but there is also likely to be a motivation to maintain horizontal segregation, where women and men are confined to occupations that are seen as congruent with prevailing stereotypes about inherent abilities or interests. The twin social psychological engines that drive this process include efforts to socialize girls and boys into gender-congruent roles at a young age (discussed in the prior section) and backlash against individuals who do not conform.

Backlash is itself an expression of prejudice. This is because stereotypes do not only describe how men and women typically behave, they also have normative power by prescribing and proscribing how men and women ought and ought not to be. As such, people often expect women to display communion and warmth but not dominance, whereas they expect men to display strength and assertiveness but not weakness and emotionality (e.g., Prentice & Carranza, 2002; Rudman, Moss-Racusin, Phelan, et al., 2012). The status incongruity hypothesis proposes that when women and men violate these gender norms by exhibiting gender-atypical traits or behaviors, they violate gendered status expectations that legitimize social hierarchy and group-based roles (Rudman, Moss-Racusin, Glick, et al., 2012). The resulting backlash – most often faced by dominant women, weak men, and gender minorities—can consist of social or economic penalties that discourage challenging the gendered status quo (Rudman, 1998; Rudman, Moss-Racusin, Glick, et al., 2012).

Backlash Against Dominant Women

Women can achieve gender equality in society only to the degree that they can enter and excel in domains once populated by men. To be in these spaces, women often find that they are expected to adopt a more masculine (i.e., dominant and competitive) style of behavior (Berdahl et al., 2018;

Sandberg, 2013). However, such expectations convey the problematic message that women can and should solve women's underrepresentation in male-dominated domains themselves (Kim et al., 2018). Women who display dominance and status-seeking behaviors can face backlash to the extent that such behavior is seen to be at odds with the status of their gender group (Rudman, Moss-Racusin, Glick, et al., 2012). Moreover, dominant women may be perceived as men's competitors, and following the theorizing of the stereotype content model discussed earlier, groups perceived to be in competition with the dominant high status group are viewed as low in warmth (Cuddy et al., 2008). For women, the penalties for nonconforming dominance and status-seeking behaviors theoretically block advancement into leadership and high-status positions (Phelan et al., 2008).

Highlighting the distinction between dominant-agentic and competence-agentic stereotypes, women do not experience backlash merely for being competent in leadership or other male-dominated domains. Rather, others derogate, dislike, and discriminate against women who exhibit dominance (Ma et al., 2022; M. J. Williams & Tiedens, 2016). Experimental research from the U.S. and field data from the Turkish parliament indicates that women politicians who show power-seeking intentions and behavior are less likely to receive votes and promotion in the party rank, whereas men politicians' power-seeking is either unrelated or beneficial for receiving votes and promotion (Okimoto & Brescoll, 2010; Yildirim et al., 2021). Relatedly, women in leadership positions face prejudice, hiring discrimination, and even sabotage when they are highly assertive (Rudman, Moss-Racusin, Phelan, et al., 2012).

Women face backlash and negative outcomes particularly from those who are most motivated to maintain the gendered status quo. When women leaders were highly assertive, they faced negative reactions from participants high in gender-system-justification beliefs (Rudman, Moss-Racusin, Phelan, et al., 2012). That not everyone views dominant women in a prejudiced way also suggests that people hold these stereotypes and prejudices toward dominant women to maintain a gender hierarchy.

Anticipating potential backlash, women themselves are more avoidant than men of leadership positions, even when they clearly have the competence for these roles. Indeed, fear of backlash inhibits women's assertive self-promotion but not their assertive promotion on another person's behalf (Amanatullah & Morris, 2010; Moss-Racusin & Rudman, 2010). The implication is that even in those instances where backlash might be unlikely, women themselves might limit their options for taking on leadership roles.

Backlash Against Weak Men

People do not only show backlash against women who display gender nonconforming behavior, they also show backlash against nonconforming men. For men, showing weakness and emotionality violates gender-stereotypical proscriptions and expectations that men have higher status and power than women. Men who behave modestly violate both proscriptions linked to low status (men should not show weakness and uncertainty) and prescriptions linked to high status (men should show ambition and confidence). Consequently, modest men face prejudice and backlash and are, for example, less liked than identically modest women applying for managerial jobs (Moss-Racusin et al., 2010).

Gender proscriptions begin at a young age. Children as young as four, and especially boys, negatively evaluate boys who do not conform to masculine gender roles (Blakemore, 2003; Levy et

al., 1995). For example, boys can face bullying and victimization when they engage in traditionally feminine behavior or activities (Sullivan et al., 2018). Among adult men, penalties for their weakness and emotionality are theorized to limit men's engagement in communally-demanding roles and activities (Haines et al., 2024; Moss-Racusin, 2014). Men encounter negative attitudes and discrimination when they choose to work in careers largely occupied by women such as elementary education (Moss-Racusin & Johnson, 2016; Sczesny et al., 2022). Moreover, men (but not women) who are successful in such careers are perceived to be wimpy and undeserving of respect (Heilman & Wallen, 2010; Rudman & Fairchild, 2004).

Yet, men—by virtue of their higher status and associations with leadership—also experience benefits in fields occupied by women. Consistent with the notion of vertical gender segregation, men in these professions sometimes profit from structural advantages that promote their careers more quickly than those of equally qualified women (i.e., the glass escalator; Hultin, 2003; C. L. Williams, 1992). This glass escalator advantage may be more common among cisgender straight White men and might not apply to gay men or men of color (C. L. Williams, 2013; Wingfield, 2009).

Precarious Manhood And The Asymmetry Of Gender Norm Constraints

Setting aside the unique phenomenon of the glass elevator, theory and evidence suggests that the social constraints of gender stereotypes are generally stronger for boys and men than girls and women (Sullivan et al., 2018). Vertical gender segregation asks men to conform and uphold their higher social status. According to precarious manhood theory, masculinity is tied to earning one's position within a status hierarchy and men's identity 'as a man' is something that needs to be repeatedly earned and proven through gender-conforming behavior (Vandello et al., 2008). The form of this proof varies across culture and ranges from acquisitions of material goods to demonstrations of sexual prowess and painful circumcision rituals. But relative to womanhood, manhood is often conceptualized to be a precarious social status that is hard to earn and easy to lose (Vandello & Bosson, 2013).

Men's felt pressure to conform and prove manhood norms can have negative outcomes for themselves and others in a wide range of domains. These can include impaired physical health (Vandello et al., 2022), extreme financial risk-taking (Weaver et al., 2013), and increased physical aggression (Bosson et al., 2009). Experimental research shows that when manhood is artificially threatened in the lab, men's increased motivation to express masculinity can lead them to act more aggressively (Stanaland & Gaither, 2021). Moreover, prohibitions against displays of vulnerability prevent many boys and men from reporting experiences of sexual victimization due to embarrassment, concerns about blame attribution, and distrust. Surveys not only suggest that rates of men's experiences of sexual victimization are likely to be much higher than statistics on formal reports, and might even be higher than sexual victimization experienced by women (Depraetere et al., 2020; Javaid, 2020; Malayeri et al., 2022).

In sum, backlash against gender-atypical behavior and non-conformity reinforces `gender-role pressures and the gender hierarchy. It further prevents women, men, and gender-non-conforming individuals from living authentically and realizing their full potential (Rudman & Fairchild, 2004).

Variation In Prejudice

Is Gender Prejudice Changing Over Time?

The positioning of women and men in the social structure of society has substantially changed over time. Alongside the changes in women's freedom and opportunities, people's attitudes and beliefs about gender equality have shifted seismically.

Cross-temporal research with the *Attitudes Toward Women Scale* reveals that, while these beliefs in traditional gender roles were prevalent in the 1970s, they have weakened thereafter. Comparing psychology students at the University of Texas at Austin from 1972 to 1992 revealed an increase in egalitarian attitudes over successive cohorts, with a ceiling effect occurring in 1992 when most people's, and particularly women's, scores clustered at the egalitarian end of the scale, rendering the scale less useful as a predictor (Spence & Hahn, 1997). Relatedly, while 66% of Gallup respondents preferred their boss to be a man rather than a woman in 1953, in 2017, 55% responded that the gender of their boss makes no difference to them (and only 23% continued to prefer a man as a boss; Brenan, 2017).

Yet, even as people have grown more accepting of women's role flexibility, modern sexist attitudes (Swim et al., 1995) persist. As reviewed before, modern sexism captures the denial of continuing discrimination against women and resentment of ongoing efforts toward women's advancement. Cross-sectional data find that modern sexist beliefs were remarkably stable from 2004 to 2018 and are still firmly in place in the United States (A. Archer & Kam, 2020). Ongoing prejudiced attitudes toward women reveal themselves in people's endorsement of the belief that gender discrimination and inequality are a thing of the past or benevolent beliefs about women's morality and vulnerability (Glick & S. T. Fiske, 1996). Longitudinal panel data from New Zealand documented relatively small net decreases in hostile and benevolent sexism from 2009 to 2016, with hostile sexist beliefs even stalling (Huang et al., 2019). The endurance of these ambivalent attitudes seems consistent with the ambivalent views of women that have existed throughout history, with women both idolized for their selfless perfection and held in contempt as temptresses (see Spence, 1999), a phenomenon known as the Madonna-whore dichotomy (Tavris & Wade, 1984).

The endorsement of ambivalent sexism also varies across people's lifespans. In longitudinal panel data, women showed a U-shaped trajectory with the least benevolent views in middle adulthood, whereas men endorsed increasingly more benevolent views of women as they grew older. For hostile sexism, the same U-shaped trajectory occurred for both women and men and might reflect hostile beliefs being highly incompatible with attaining relevant relationship goals in middle adulthood (Hammond et al., 2018).

Taken together, in Western societies such as the United States, there is evidence of both stability and change in gender prejudice. People increasingly have expressed more favorable attitudes toward women in the workforce or leadership positions, but there continues to be substantial variability in people's acknowledgment that gender discrimination, bias, and harassment can persist when women attain status positions. Furthermore, women's ability to advance in the workforce has been countered with new perceptions that men face unfair gender discrimination.

Does Gender Prejudice Vary Across Culture?

Describing cross-national variation in sexism

In addition to changes in gender prejudice over time, cross-cultural research reveals variation across societies as well. Research has for example measured the stability and variation of ambivalent sexism and beliefs across culture. As discussed before, the combination of antagonistic hostile beliefs and seemingly positive yet patronizing benevolent beliefs maintains the gender hierarchy. Overall, hostile and benevolent attitudes toward both women and men tend to be lower in countries that score higher on indices of gender equality (Glick et al., 2004).

Focusing on ambivalent sexism toward women, survey data from college students across 19 nations reveal that hostile sexist beliefs were more strongly endorsed by men than women in all nations (Glick et al., 2000). There was more cross-national variability in people's endorsement of benevolent sexism. These patronizing attitudes were more strongly endorsed by men than women in some nations (e.g., Australia, United States), equally prevalent among both gender groups in other nations (e.g., England, Germany, Japan), and more strongly endorsed by women than men in the five nations where men most strongly endorsed hostile sexism (e.g., Cuba, Botswana, Nigeria).

Research has also examined cross-national variation in ambivalent beliefs toward men. Survey data from college students across 16 nations find that hostile beliefs toward men were more strongly endorsed by women than men in all nations but England (Glick et al., 2004). Benevolent beliefs, in contrast, tended to be more strongly endorsed by men than women in all 16 nations and characterize men as designed for dominance. Together, these patterns of ambivalent beliefs toward both women and men suggest a gendered hierarchy that is reinforced and legitimized to some degree by everyone.

Variation also exists in the cultural beliefs about the requirements of manhood. A cross-national study of 62 countries finds that people generally expect men to be agentic more than they expect women to be communal (Bosson et al., 2022). These more rigid expectations for men's behavior were stronger in less gender-equal countries, where men are more responsible for being the primary breadwinner and protector of their families. However, across all countries studied, there was a universal proscription against men's weakness that was stronger than the proscription against women's dominance. These data further reveal that in countries with stronger precarious manhood beliefs, men experience more risk-related health behaviors (e.g., smoking) and outcomes (e.g., drownings; Vandello et al., 2022).

Finally, objectification and self-objectification of girls and women also vary across culture. Although Fredrickson and Roberts (1997) originally suggested that such phenomena might be unique to Western culture, cross-cultural research suggests otherwise. In both a Western Belgian and an Eastern Thai sample, sexual objectification of women resulted in dehumanization (Wollast et al., 2018). However, women from Western cultures (e.g., Australia and the United States) report higher levels of self-objectification than women from Eastern cultures (e.g., India and Japan; Loughnan et al., 2015). Thus, objectification of women's bodies might lead to more negative perceptions of women across culture, but the cultural context likely influences the extent to which girls and women self-objectify.

Explaining cross-national variation in sexism

The effects described thus far point to notable variation among cultures in different manifestations of prejudice but do little to explain why that variation have been posited. Such explanations are an ongoing source of study, although a few theories exist. One relates to historical conditions that facilitated a gendered division of labor and a corresponding gender hierarchy that emerged and has

persisted in some cultures more than in others. Cultural economists have suggested that geographical conditions in agrarian societies might have played a role in affording an early gendered division of labor that gave men greater control over economic resources (Alesina et al., 2013). In particular, the historic use of plow in some regions but not others favored men's greater size, leading to role segregation and related gender role attitudes that justified a gendered division of labor. Even though such effects occurred centuries ago, cultural regions with traditional plow use have greater gender inequality in labor force participation and leadership today and hold more traditional attitudes about the appropriate roles of women in society.

Another mechanism that may contribute to cross-cultural differences in gender prejudice is the gendering of the primary language spoken within a culture. Languages differ in the degree to which gender plays a role in their grammatical structure and whether or not nouns and pronouns are assigned a feminine or masculine (or sometimes neutral) gender. The pervasiveness of gender-based grammatical distinctions in languages is theorized both to reflect a society's emphasis on gender, including men's and women's different relative standing in society, as well as to make gender roles and distinctions more salient (Stahlberg et al., 2007).

Evidence indeed suggests that countries with gendered languages have lower levels of gender equality in terms of economic and political participation than countries with less gendered language systems (Prewitt-Freilino et al., 2012; Santacreu-Vasut et al., 2013). Moreover, data from the World Value survey including 76,000 women speaking 34 different languages reveals that speaking a gendered language with two sex-based noun classes is associated with a greater gender gap in educational attainment as measured by years of education and school completion rates (L. Davis & Reynolds, 2018). Experimental research supports these findings by showing that bilingual students reported more sexist attitudes toward women after reading a passage from a novel in a language with grammatical gender (i.e., French or Spanish) than without (i.e., English; Wasserman & Weseley, 2009). Addressing the fact that language is androcentric and thus puts girls and women at a disadvantage, nations such as Sweden and Norway have actively reformed their language (Gabriel & Gygax, 2008; Gustafsson Sendén et al., 2021).

Taken together, different structural indicators relate to different levels of prejudice and gender inequality in different nations. Yet, virtually all cultures have the same gender hierarchy with perceptions of men as having higher status than women.

Gender Attitudes And Intersecting Identities

Research has often examined prejudice against women and men as uniform groups, ignoring that people not only belong to a gender category but simultaneously to multiple other social categories such as race/ethnicity, age, sexual orientation, and socioeconomic class (Collins, 2015; Crenshaw, 1989). Considering people's intersecting identities is important because prejudice against, for example, Black lesbian women cannot be understood by simply adding up the separate prejudices experienced by people due to their race, sexual orientation, and gender. As outlined earlier, people's multiple interconnected identities and the power, status, and privilege associated with these shape cultural attitudes and beliefs toward them.

Gendered nature of racial prejudice

Sidanius and colleagues' theory of gendered prejudice (Sidanius et al., 2018) adopts an evolutionary approach to assert that racial prejudices reflect intergroup conflict among men of different groups competing for group dominance. This evolutionary approach is based on social dominance theory (Sidanius & Pratto, 1999), which states that all human societies are characterized by three qualitatively different social hierarchies, namely, based on age (adults are dominant over children), gender (men are dominant over women), and socially constructed arbitrary groupings such as race/ethnicity (White people are dominant over Black people in the United States).

Part of this theory is the subordinate male target hypothesis (SMTH), which asserts that subordinate men bear the brunt of oppression that is primarily implemented by dominant men (Sidanius et al., 2018). According to the SMTH, arbitrary-set hierarchies result from competition among men over access to material and symbolic resources. Because this is largely an intra-male competition, men are the default for facing racially prejudiced beliefs and stereotypes. However, women of color do not escape racial prejudice; rather that the racial prejudice toward them might be qualitatively distinct from what men experience and more tied to gender and sexuality (e.g., Navarrete et al., 2010). As a result, women of color might suffer more indirect prejudice that makes their daily life more challenging than what White women experience, arising from their dependency on the more limited resources available to Black men who are more likely to be their husbands, sons, and fathers (Sidanius et al., 2018).

Empirical support for SMTH comes from representative public opinion polls and labor market data. Among African Americans, Black men report experiencing substantially higher levels of racial discrimination than Black women. Sidanius (2018) cites data from a 1997 Gallup poll reporting men's greater experience of racial prejudice in various life domains including when using public transport (12% of Black men vs. 2% of Black women), interacting with the police (34% vs. 8%), and at work (23% vs. 10%). Moreover, U.S. income data from 1970 to 2010 revealed that Black men earned substantially less than White men, whereas the wage gap between Black women and White women was either small or non-existent over this same 40-year period (Mandel & Semyonov, 2016). Relatedly, a longitudinal study with Harvard students found similar pay gaps that remained when controlling for numerous possible confounds (Bowen & Bok, 1998).

To conclude, the theory of gendered racial prejudice and relevant empirical data propose that racial prejudice predominantly is linked to competition between men for status and power in a larger dominance hierarchy. The controversial claim is that women of color might be protected from racial animus by being atypical of both women and Black people; this suggestion is contrary to an alternative view that women of color face double jeopardy by being the target of both racial and gender prejudice.

Double jeopardy

One of the oldest intersectional theories is the double jeopardy hypothesis, rooted in the sociological and Black feminist literature of the 1970s (e.g., Beale, 1979; King, 1988). This hypothesis proposes that women of color are disproportionately targeted by harassment and discrimination as they experience both sexism and racism. Empirical data on ethnic and sexual workplace harassment reveals some evidence of double jeopardy; women of color experience more harassment overall than men of color, White women, and White men (Berdahl & Moore, 2006), a finding that is not necessarily inconsistent with the SMTH described above. Moreover, under conditions of organizational failure, Black women leaders are also evaluated more negatively than Black men leaders, White women leaders, and White men leaders. Under conditions of

organizational success, these three latter groups were evaluated comparably, but still more negatively than White men (Rosette & Livingston, 2012).

Taken together, the double jeopardy hypothesis conceptualizes intersectional prejudice as cumulative. However, several empirical findings cannot be explained by the proposed cumulative effect. There are examples where individuals who have two marginalized identities face less (and not more) discrimination than those who have one marginalized identity. A study on age and race/ethnicity stereotypes found that the combination of both stereotypes is beneficial to older Black men and protects them from the otherwise Black-hostility stereotype (Kang & Chasteen, 2009). Similarly, a study on the combination of homosexuality and race/ethnicity prejudice finds that being gay is beneficial for Black male applicants but not for White male job applicants (Pedulla, 2014). A combination more complex than the simple addition predicted by the double-jeopardy hypothesis also was found in people's own estimations of bias. Ethnic-minority women with their multiple stigmatized identities are found not to expect more discrimination than ethnic-minority men (Levin et al., 2002).

Intersectional invisibility

The intersectional invisibility perspective moves beyond the question of "whose group is worse off" to understand the complex and unique forms of prejudice and discrimination toward people with intersectional identities (Fryberg & Townsend, 2008; Purdie-Vaughns & Eibach, 2008, p. 378). This perspective is rooted in androcentrism (men considered the standard), ethnocentrism (White Americans considered the standard in the United States), and heterocentrism (heterosexuality considered the standard). It proposes that sexism or racism typically targets group members that are prototypical of their respective group, and that non-prototypical group members therefore face unique forms of prejudice and discrimination.

Taking gender and race in the United States as an example, the prototypical member of each group would be a man and a person who is White, leaving women of color "intersectionally invisible." In contrast to the perspectives discussed before, this perspective does not simply suggest that women of color compared to men of color experience less (see the theory of gendered prejudice) or more (see double jeopardy hypothesis) prejudice. The intersectional invisibility hypothesis instead suggests that the non-prototypicality of marginalized intersectional groups can result in members of those groups being underrepresented and not recognized or credited for their contributions.

Empirical data support this idea. In workplace conversations among a group of people that included White men and women as well as Black men and women, statements said by a Black woman were least likely to be correctly attributed to her compared to the statements from the other three groups, although which person said which statement was randomized (Sesko & Biernat, 2010). Moreover, U.S. university students who had two or more non-prototypical stigmatized identities reported more feelings of invisibility and more unfair treatment than those who had only one or no stigmatized identity (Remedios & Snyder, 2018). Finally, despite an unprecedented spike of mainstream advertisements displaying lesbian, gay, bisexual, and transgender (LGBT) individuals over the first two decades of the 21st century, 230 out of 240 possible groups at the intersections of sexual orientation, social class, age, and race/ethnicity remain invisible in advertisements published in the United States and Europe between 2009 and 2015 (Nölke, 2018).

Despite individuals with intersectional identities being overlooked, invisibility might sometimes also have a protective function. This view suggests that individuals with intersecting identities

might sometimes "more easily escape" discrimination than those who better fit the prototype of the discriminated group (Purdie-Vaughns & Eibach, 2008, p. 382). Data from U.S. criminal statistics provide some evidence for this by showing that being less prototypical protects Black men from harsh sentences. To the extent that Black men inmates have less prototypical Afrocentric facial features and appearances, they received less harsh criminal-sentence decisions for equivalent criminal offenses (Blair et al., 2004; Eberhardt et al., 2006).

Relatedly, the degree to which people experience backlash because of gender atypical behavior is likely different for women and men of different race/ethnicity. For women, stereotypes of Black women as dominant and angry have persevered since the time of slavery in the United States (Ghavami & Peplau, 2013), and can protect Black women from backlash for showing dominance. Indeed, Black women leaders are less likely to be penalized for dominant behavior than White or Asian women leaders (Livingston et al., 2012; Rosette et al., 2016). Among men, consistent with stereotypes of Asian men as more feminine and less masculine than Black and White men (Galinsky et al., 2013), Asian men were more concerned about facing backlash for assertively negotiating their salary than White men (Toosi et al., 2019).

To conclude, an increasing amount of research emphasizes the importance of understanding prejudice in light of intersecting identities. Although different theoretical perspectives make competing and even conflicting predictions, researchers agree that people's multiple identities—and the associated power and privilege—shape attitudes and prejudice.

Summary

The history of research on gender prejudice shows that although prejudice has been conceptualized and measured in different ways, sexist beliefs have in common the goal of justifying and upholding the gendered status quo. Prejudiced beliefs about gender groups originate from stereotypes and gendered hierarchies and lead people to exhibit backlash against women, men, and gender minorities who do not conform to their respective gender groups. These sexist beliefs are not inevitable, however, as they vary across time and culture. The next sections review how stereotypes and prejudice can elicit both interpersonal and systemic forms of gender bias and discrimination, and what is needed to make progress toward greater equality.

VI. GENDER BIAS AND DISCRIMINATION

The persistent presence of gender stereotypes and prejudice sets the stage for gender bias and discrimination that both create and maintain gender inequalities. Bias can happen in three ways: (a) through intrapersonal processes of self-selection (discussed earlier) as well as through (b) interpersonal processes of bias and discrimination and (c) systemic processes of unequal opportunities and affordances. This section focuses on interpersonal and systemic gender bias.

Interpersonal biases occur when people's stereotypes and prejudices lead to differences in how women and men are perceived and treated. But gender discrimination can also be systemic in that institutional structures, having historically been created by and for one gender, afford more subtle and sometimes blatant advantages for members of that gender group (Schmader & Sedikides, 2018). Even in the absence of any individual who endorses or enacts stereotypes or prejudice, systemic forms of gender bias can subtly maintain and amplify gender disparities. For example, some have

suggested women's and men's different career choices (that can reflect either internalized stereotypes or systemic affordances) might better explain women's underrepresentation in STEM contexts rather than interpersonal biases and discrimination from others (Ceci & Williams, 2011; see also Schmader, 2023).

Interpersonal Biases

Gender stereotypes and prejudice toward gender counter-stereotypic people sets the stage for possible discrimination. Consider the now famous case of Ann Hopkins who was denied promotion to partner at a large accounting firm in the 1980s. Despite her acknowledged competence, Price Waterhouse argued that she lacked interpersonal skills, "overcompensated for being a woman," and advised her to walk, talk, and dress in a more feminine manner to increase chances for promotion (Hopkins v. Price Waterhouse, 1985, p. 1117). Years later, informed by gender stereotyping research (see S. T. Fiske et al., 1991), the U.S. Supreme Court ruled that "an employer who treats a woman with an assertive personality in a different manner than if she had been a man is guilty of sex discrimination" (Hopkins v. Price Waterhouse, 1985, p. 1119). Such events still occur; 40% of women report having experienced gender discrimination in their workplace (Parker & Funk, 2017). This section reviews the psychological processes by which gender stereotypes and prejudice can (but do not inevitably) lead to bias and discrimination.

Dual Process Accounts

Dual process accounts of prejudice and stereotyping provide a window into the process by which bias unfolds (also see Bodenhausen & Cheryan, 2025). These accounts assume that social perceivers actively try to make sense of complex environments, including especially the people in them. In doing so, people often rely on simple heuristics to form quick impressions of others based on minimal information (a system 1 process). However, people can also invest additional time and effort to engage in more deliberate thought (a system 2 process; Devine, 1989; Fazio, 1990). From these dual process accounts, bias unfolds as a process whereby stereotypes or prejudiced attitudes are first automatically activated in working memory, with a person's goals, motivations, and additional information then informing whether those activated cognitions are applied in one's decision-making or behavior.

Activation of gendered cognitions

When applied to gender, dual processes are embedded within a larger culture of how gender is constructed (Diekman & Schmader, 2024). People's system 1 impressions can be shaped by the activation of gender stereotypes and prejudicial attitudes discussed in the prior sections. These include the prevalent cultural stereotypes about women's presumed communal traits and the benevolent beliefs that accompany them, men's presumed agentic traits with an emphasis on dominance, as well as negative attitudes toward those who do not conform to traditional gender stereotypes or identities.

Application of gendered cognitions in intentionally biased behavior

People do not inevitably see each other through a gender stereotypic lens. The application of gendered cognitions is dynamic (Kunda et al., 2002). If people have the motivation to be fair-minded or accurate, they are more likely to attend to and integrate individuating information about a person into their impressions (Neuberg & S. T. Fiske, 1987). In these instances, stereotypes become less informative if the individual's characteristics conflict with prevalent stereotypes. For example, although gender stereotypes might color one's initial perceptions of a job applicant, an interview with a highly qualified applicant typically leads people to disregard the stereotype in favor of more relevant individuating information (A. J. Koch et al., 2015).

In addition, the goal to be egalitarian can motivate people to actively suppress gendered cognitions that come to mind (Crandall & Eshleman, 2003). Alternatively, when people feel that those cognitions are accurate reflections of reality, they can feel justified in applying them. This line of reasoning underlies a typology of biased experiences that result from distinct pathways that bias can unfold (Schmader et al., 2022). In fact, people who lack the motivation to be egalitarian engage in *hostile bias* when they are aware of their gendered cognitions and actively apply them in their decision-making, but engage in *apathetic bias* when they do nothing to prevent activated stereotypes or prejudice from shaping their behavior.

Application of gendered cognitions in implicitly biased behavior

Hostile and apathetic bias are two types of intentional biases that can be contrasted against two types of implicit biases (Schmader et al., 2022). Implicit bias refers to instances when people's behavior is biased by their stereotypes or prejudice despite their motivation to be egalitarian. *Unconscious bias* occurs when a person is not aware at the moment that stereotypes and prejudice might be distorting their perception and thus does nothing to prevent applying their biases. *Unintentional bias* occurs when a person is aware but does not employ strategies to effectively prevent biases from doing harm. When people do effectively downregulate the influence of biased cognitions into biased behavior, this is labeled *regulated unbiased behavior.* Although such processes are discussed more extensively by Bodenhausen and Cheryan (2024), this section summarizes evidence for gender stereotyping, sexism, and discrimination.

Evidence Of Gender Bias In Person Perception

Gender categorization

Social biases cannot occur unless people first categorize another person as having that social attribute or identity. In social perception, our binary notions of sex/gender and their assumed connection to observable physical differences mean that we are quick to categorize people as either male/man or female/woman. Even in a gender-neutral context, people automatically categorize a person's sex/gender within 100-200 milliseconds (Domen et al., 2020; Hügelschäfer et al., 2016; Rakić et al., 2018). This tendency might reflect an evolved capacity to detect a person's sex given the fitness advantages afforded by sexual reproduction (A. E. Martin & Slepian, 2020; Sidanius & Pratto, 1999).

There are some biases to this categorization process. First, people are generally faster to detect the gender of same-gender others, and this is particularly true for women in contexts where they are in the numerical minority (Domen et al., 2020). Second, there is an androcentric bias to simply assume

that any person is male (Bailey et al., 2022). Third, related to this androcentric bias, women seem to be categorized as being not like men. Even early elementary school aged children show a tendency to categorize women's faces based on how stereotypically feminine they look, but show less of a tendency to categorize men based on variations in masculine appearance (Rennels & Verba, 2019). There are also intersectional effects in gender categorization. Adults and children (mostly White, Latinx, or multi-racial) as young as seven years of age are slower and less accurate at categorizing the gender of Black women as compared with White and Asian people (Leshin et al., 2022). In sum, people are quick to categorize others based on gender, but there is some variation in the speed with which this happens.

Facial stereotyping

Once a person has been categorized by gender, the culturally-learned stereotypes associated with that gender become tentative expectations for what that person might be like. Because of this, gender stereotyping can happen based on minimal visual cues. For example, men's faces are automatically assumed to be more competent than women's faces (Oh et al., 2019).

These heuristic impressions are not just guided by stereotypes but also by prejudice against women who do not conform to prevailing gender roles. Women but not men with more dominant (and thus gender atypical) facial features are assumed to be less trustworthy, a perception that can be stronger among women than men perceivers (Oh et al., 2020). This same work suggests that people who hold stronger stereotypes make more valenced and ambivalent impressions of women's faces compared to men's faces, setting the stage for later ambivalent sexism. Although gender biases in face perception can seem contrived, with the potential to be overridden by more individuating information, these biases can have real consequences. Women politicians who have a less stereotypic appearance received fewer votes in an election, especially in more politically conservative regions (Hehman et al., 2014).

People use additional features beyond the face to make these categorizations. When for example variations in hair are removed, people have greater difficulty correctly categorizing people's sex/gender based on only facial features (X. Yang & Dunham, 2019). Body shape and walking style (more of a swagger or a sway) are additional cues used to categorize a person's sex, mediated by a judgment of how masculine or feminine they seem (K. L. Johnson & Tassinary, 2005).

Evidence Of Gender Bias In Hiring

Biased evaluation

The effect of gender stereotypes on impression formation has the potential to shape gender discrimination in hiring. Studies of hiring biases use both controlled experiments (where participants evaluate fictitious applicants who are identical in qualifications but differ in their gender) and audit studies (where fabricated applications with a man's or woman's name are sent to real job advertisements and callbacks are counted). A meta-analysis of 136 effect sizes, derived from both types of studies, documented that men are preferred over women for jobs dominated by men (d = .13), whereas no gender bias was found in jobs that were gender integrated or dominated by women (A. J. Koch et al., 2015). Evaluators who were men (d = .21), compared to women (d = .04),

were more likely to show gender bias, especially when making decisions about jobs largely occupied by men (*d* = .30).

Consistent with a dual process view of stereotyping, this kind of gender discrimination is not inevitable. Koch et al.'s (2015) meta-analysis further revealed that evaluators who were motivated to be careful (including those with more hiring experience) showed less anti-women discrimination for male-dominated jobs. Furthermore, such biases are most likely to enter decision-making when the quality of candidates is ambiguous. When considering unambiguously strong applicants, people either showed no gender bias or even favoritism for hiring a woman into male-dominated fields (A. J. Koch et al., 2015). Illustrating this pattern, a pro-man bias was found when research faculty rated an undergraduate applicant with good but not outstanding credentials (Moss-Racusin et al., 2012), whereas a pro-woman bias was found when research faculty rated shortlisted faculty candidates with stellar records and qualifications (W. M. Williams & Ceci, 2015).

This pro-woman bias found in the latter set of experimental studies led Williams and Ceci (2015) to claim that not only is there no evidence of a pro-man bias in contemporary academic hiring, but that women are preferred 2:1 to men. However, data on gender representation in academia does not support this claim. Although women's representation has increased from 2011 to 2020 in all fields (except nursing which has shown the opposite trend), this is not due to an increase in hiring women as assistant professors, but instead to a disproportionate number of men retiring (Wapman et al., 2022).

Hiring bias may be experienced by some women more than others. For example, mothers—but not fathers—experience a penalty in both hiring and starting salaries (Correll et al., 2007). But also young women without children can experience a 'maybe baby' bias, due to anticipated organizational costs of maternity leave (Gloor et al., 2018, p. 45). At the intersection of gender and race/ethnicity, a large European field study documented that in occupations largely occupied by women, women were more likely to receive a callback than men, but only if they were White (Di Stasio & Larsen, 2020). For all other ethnic groups, men and women were equally disadvantaged compared to White women for jobs occupied by women, and to White applicants of both gender groups for jobs occupied by men.

Mechanisms underlying gender biased evaluation

What are the mechanisms underlying these hiring biases? First, gender stereotypes could directly shape how applicants are perceived. For example, the tendency to rate men higher on vertical dimensions of status and competence might be why men sometimes get more benefit of the doubt when being hired into jobs typically held by women or promoted into positions of leadership (Jackson et al., 2001; Ng & Wiesner, 2007).

Second, research documents the use of shifting standards (Biernat & Kobrynowicz, 1997), whereby candidates are evaluated against the performance of other ingroup members, leading to disparate outcomes between women and men of similar quality. In a large résumé audit study, researchers sent out over 2,100 job applications to entry-level positions and varied the gender, academic achievement, and major of the (presumed) applicant (Quadlin, 2018). Results showed that among applicants with strong academic records, men were more than twice as likely than women to get called back for an interview. A follow-up experiment suggested that because women are expected to do well academically, evaluators discounted high grades from a woman, compared to the same grade from a man.

A third explanation is that evaluators might underweight a dimension (e.g., academic achievement) or define criteria to justify their bias for hiring the person they want. Men do this when preferring to hire a man into jobs typically held by men, and women do this when preferring to hire a woman into jobs typically held by women (Uhlmann & Cohen, 2005). People also attach different value to future potential and past performance depending on the gender of a leadership candidate. In a hiring simulation experiment, people valued future potential more highly than past performance when considering men for promotion but not when considering women, thereby overlooking women with high potential (Player et al., 2019).

Moderators of gender-biased evaluation

Several variables have the potential to moderate gender-biased evaluations. First, efforts to educate hiring committees about implicit bias have the potential to change how gender biases enter into decision-making. In one randomized control trial with university faculty, theory-based training on implicit gender bias along with strategies for counteracting it led to a marginally significant but still meaningful 18% increase in the percentage of women hired into STEM positions over the subsequent two years (Devine et al., 2017). Notably, efforts to encourage equity, diversity, and inclusion in the hiring process do not lead evaluators to hire less qualified applicants. When employment equity is emphasized, evaluators prefer hiring a woman into fields dominated by men, but only if she is equally or more qualified than a man applying for the same position (Ng & Wiesner, 2007); they will not select a less qualified woman (Ceci & Williams, 2015). The research literature thus provides no evidence that efforts toward diversity come at the expense of qualifications.

In addition, the tendency to exhibit gender bias can also be influenced by norms in the context (Crandall & Eshleman, 2003; Schmader et al., 2022). Social norms for gender equity can facilitate evaluators' suppression of gendered cognitions, but norms to support the status quo can lead evaluators to justify the use of gender stereotypes. When managers read an article justifying the use of stereotypes as useful heuristics (vs. an article critical of this viewpoint), they exhibit greater gender discrimination during a hiring simulation (Tilcsik, 2021). Relatedly, a phenomenon known as third-party prejudice can occur when evaluators, who are not themselves sexist, recommend hiring a man over a woman because they believe this is the outcome that their boss would prefer (Vial et al., 2019).

Finally, the moderating role of social norms can explain why gender bias might exist in some contexts and not others. In a study of actual hiring decisions among research scientists across a range of academic disciplines, committees who held a higher average belief that gender bias holds women back in their field showed no significant correlation between committee-level implicit stereotypes and adverse hiring outcomes for women. However, among committees who, on average, did not think that such barriers exist, those with stronger STEM = male stereotypes in year one of the study made more adverse hiring decisions toward women in the following year's competition (Régner et al., 2019). Thus, the question is not, does gender bias occur, but what conditions make bias more likely?

Evidence Of Gender Bias In Social Interactions

In social interactions, the kinds of processes described above play out dynamically as a function of how both parties perceive each other and themselves (Deaux & Major, 1987). Granted, cross-gender

interactions can be fun, productive, casual, or intimate depending on the type of relationship between the people involved. However, gender stereotypes or prejudice can at times bias those interactions with negative consequences for one or both genders.

Sexual harassment

Given the sexual interdependence between straight men and women, their interactions might often be flirtatious. However, sexually-charged interactions can be problematic in work and school contexts. According to a Pew Research Center poll, 59% of women and 27% of men reported having received unwanted sexual advances or harassment, with many of these episodes happening at work (Graf, 2018). Experience of sexual harassment can have profound effects for psychological health and the ability to be productive and engaged at work (Ragins & Scandura, 1995).

Harassment is often not about sexual attraction, but motivated instead by the perpetrator's attempt to assert their status within a hierarchical system (Berdahl, 2007). For example, men high in social dominance orientation assigned to have a woman as a boss (rather than to work for a man or together with a woman as a collaborator) showed a higher tendency to sexually objectify women (Bareket & Shnabel, 2020). Given this evidence of harassment as subjugation, it is perhaps not surprising that women of color often face disproportionate levels of harassment based both on their gender and their race/ethnicity (Berdahl & Moore, 2006). Furthermore, targets of sexual comments are perceived as less warm and competent, a social cost to sexual harassment that women but not men accurately anticipate (Kahalon et al., 2022). The experience of harassment can be highly traumatic, but also tends to be relatively infrequent. In Berdahl and Moore's work (2006), average ratings of experienced sexual harassment fell below 0.5 where 0 = never and 1 = once or twice in the past two years.

Gender biased interactions

More frequently than the experience of explicit sexual harassment are everyday experiences of subtle gender biases. Evidence suggests that men with stronger gender stereotypes or prejudice have a more difficult time interacting with women through a gender-free lens. Men high in benevolent sexism tend to be more patient and positive in their casual interactions with women; men with more hostile beliefs show less affiliative tendencies toward a woman during an unstructured interaction (Goh & Hall, 2015). Although the first pattern seems more positive than the second, both can have pernicious consequences. Benevolent sexism can lead men to help women in ways that maintain their dependency rather than build autonomy (Shnabel et al., 2016). Similarly, among people high in benevolent sexism, men ask for and receive help with household chores in ways that maintains their dependency on their wives' and partners' domestic contributions (Bareket et al., 2021). Although outwardly prosocial, such benevolent biases reinforce traditional gender roles.

Another example of the pernicious effects of what on the surface seem like positive interactions can be found in a series of studies by Logel and colleagues (2009). In this research, men who completed a sentence completion task with more sexist content subsequently behaved in a more dominant and flirtatious way toward a woman in their class during a laboratory discussion related to their engineering major. In a follow-up experiment, women treated in this more dominant and flirtatious way (vs. not) performed more poorly on an engineering test. These dynamic effects of gender stereotypes on women's performance were not apparent to women participants, who if

anything reported liking the sexist partner more (Logel et al., 2009). Similarly, positive compliments about a woman's appearance can boost her mood but still lead to worse performance (Kahalon et al., 2018). Such findings demonstrate the subtle nature of implicit bias during social interactions.

Other field-based research suggests that these subtle signals of exclusion during cross-gender interactions are associated with negative outcomes for women at work (see Hall et al., 2022 for a review). On days when women report feeling a lack of acceptance by men in their workplace, they also report more feelings of burnout; men do not show this same relationship. Moreover, among women (but not among men), less acceptance by male colleagues predicts daily experiences of social identity threat (the awareness and concern of being perceived through the lens of their gender) which in turn explains the relationship to burnout (Hall et al., 2015, 2019). This research isolated these effects to the absence of positive experiences, not the presence of overtly hostile interactions, which were quite rare.

Finally, men's implicit gender stereotypes also predict their efforts toward inclusivity in the workplace. In a study of professional STEM employees, men who had a stronger tendency to automatically associate STEM more with men than with women also reported spending less time socializing with the women in their teams (Cyr et al., 2021). For women in the same sample, those who reported having fewer social ties with their male colleagues reported experiencing greater social identity threat, less social fit, and lower engagement with their work. Taken together, this research suggests that subtle signals of social exclusion, or even the lack of full inclusion, can be pernicious.

Stigma consciousness

The above effects focus on men's stereotypes of women, but women's beliefs and expectations about men also influence cross-gender interactions. Stigma consciousness is defined as a woman's chronic concern that men might view her primarily through a gendered lens (Pinel, 1999). Women high in stigma consciousness are more vigilant to detecting cues of social devaluation (Kaiser et al., 2006). The ability to perceive and attribute negative outcomes to bias and discrimination can be emotionally self-protective (Crocker & Major, 1989; K. Wang et al., 2012) and even blunt a physiological stress response (D. M. Doyle & Molix, 2018). However, if instances of bias seem indicative of broader patterns of systemic injustice, feelings of hopelessness can prevail (M. T. Schmitt et al., 2014).

Women's stigma consciousness not only has implications for how women cope with experiences of gender bias, it can also influence the nature of the interaction itself. In one experimental study, women high or low in stigma consciousness were (erroneously) led to expect that they would be interacting with a sexist man. When given the opportunity to provide him with feedback on an essay, women high (vs. low) in stigma consciousness rated his essay more negatively, which then led him to reciprocate by also providing her with more negative evaluations (Pinel, 2002). Combined with evidence that women tend to overestimate men's hostile sexism (Goh et al., 2017), such research reveals the negative dynamic that can result when women falsely expect men to be sexist.

In sum, prevalent gender stereotypes and prejudice can bias how men and women perceive each other, leading to gender-based discrimination. Gendered cognitions can be automatically activated by having categorized someone by gender. The application of gender stereotypes and biased behavior is not inevitable, however. Although people can feel justified in using gender stereotypes to make judgments of a person, when motivated to be egalitarian, people can set their stereotypes

aside. In addition, implicit gender bias can occur when even well-intentioned people fail to realize or effectively regulate how stereotypes and attitudes bias their judgment and actions. These subtle forms of gender bias are more difficult to detect on a case-by-case basis but are often revealed when studied in the aggregate.

Systemic Forms Of Gender Bias

Gender disparities can result from interpersonal biases described above, but also from more systemic forms of bias that are embedded into the structure and function of organizations and roles. These systemic forms of bias include both structural conditions that create real barriers to gender integration as well as more symbolic cues to fit and inclusion that differentially attract men and women into different roles and occupations. Together, these organizing features of societies perpetuate gender disparities even in the absence of any intentional or implicit interpersonal bias or discrimination.

Constraints And Affordances Embedded In Social Structures

Structural affordances of vertical segregation

Men are often overrepresented in high status roles. Such vertical gender segregation is often structurally maintained by the interdependence between straight men and women in couples. As a result, couples often negotiate a division of labor whereby one partner's choices often constrain the roles the other can take on. Because this negotiation happens in the context of deeply entrenched social roles of men as primary breadwinners and women as primary caregivers, women's rather than men's career choices are more often constrained.

Women's ability to work outside the home and pursue high status, high salary, time-intensive careers is linked to their partner's willingness to share the burden of childcare and domestic work to manage the home (Rubiano-Matulevich & Kashiwase, 2018). These effects are rooted in traditional gender-role expectations; same-sex couples exhibit more egalitarian divisions of labor than do different-sex couples (Kurdek, 2006; Solomon et al., 2005; van der Vleuten et al., 2021). In fact, women continue to do a disproportionate amount of childcare and domestic work, even as men have become more involved fathers. Although a cross-national survey from 1971 to 2010 showed a general increase in fathers' childcare time in industrialized nations, women's childcare time increased as well, preserving gender inequality (Altintas & Sullivan, 2016). Women's disproportionate care for children and family also increased under the forced lockdowns during the COVID-19 pandemic (Giurge et al., 2021). Women's outsized role in childbirth and childcare are the main cause of disparities in the labor market that disfavor women (e.g., Cortés & Pan, 2020; Ferrant et al., 2014; Musick et al., 2020).

Research often focuses on the constraints placed on women, yet women's contributions at home provide a structural affordance to men's ability to hold high status, time-intensive careers. In research with business leaders, those who were men (vs. women) were more likely to have children (93% vs. 79%) and to have partners who work part time or not at all (46% vs. 8%; Højgaard, 2002). In contrast, women leaders (25%) were more likely than men leaders (8%) to have partners who were themselves top managers. Men who were leaders were also more often relieved from the burden of the so-called 'second shift' (Hochschild & Machung, 2012), and they could thus devote more

resources to their careers. In fact, in the study mentioned above, about 60% of the men leaders did little or no housework, whereas 40% of the women leaders did all or more than half of it (Højgaard, 2002).

Even efforts aimed at compensating parents for taking time off work to care for a new child can have ironic consequences that widen gender disparities in career outcomes and salaries. More generous parental leave policies on the nation-level positively predict women's, but not men's, self-reported intention to take time off to care for potential future children, thereby unintentionally increasing, rather than decreasing, gender gaps in unpaid care work (Olsson et al., 2023). Yet, so-called 'use it or lose it' leave policies that provide protected and highly paid leave only available to fathers might be more effective at fostering greater gender equality in parental care (Castro-García & Pazos-Moran, 2016).

Women's interdependence with men who are their partners creates one kind of structural constraint to their ability for full-time work or career advancement. Yet, men enjoy other additional structural affordances to their career advancement. Distinct from gender bias is a more general tendency toward homophily where men seek out connections with men and women seek out connections with women (McPherson et al., 2001). Due to these affinities, men have more same-gender contacts in their social networks when working in organizations that have more men (Woehler et al., 2021), providing them with disproportionate professional advantages that can advance their careers. This differential access to social capital might also contribute to men's higher publishing rates in academia. A study of cross-gender collaboration found that men (50%) were generally more likely than women (15%) to publish with only same-gender coauthors, but this tendency was most pronounced in fields largely occupied by men (and reversed to some extent in disciplines occupied more by women; Kwiek & Roszka, 2021).

Structural affordances for horizontal gender segregation

Just as prevalent social structures can pose realistic affordances to vertical segregation, they can also afford horizontal segregation. Some occupations attract more women than men because they afford women's need for reduced-time or flexible work schedules. For example, teaching careers match children's school schedule, and nursing and retail offer shifts that run opposite to the normal business hours one's partner might be working. Even the structure of work can promote or inhibit gender equality. Goldin (2014) has noted that occupations that reward long work hours disproportionately attract men who might have a partner to manage the household. In contrast, pharmacy has become gender egalitarian since the 1970s because the job allows for part-time work and substitutability of tasks among pharmacists (Goldin & Katz, 2016).

Even within the same industry, women's entry has sometimes resulted in an internal restructuring of work to maintain gender segregation in different jobs and functions. When women began to enter professions such as law, management, and medicine, new subfields emerged such as public interest law, human resources management, and family medicine (Levanon & Grusky, 2016). In academia, a similar gendered division of labor often occurs. Among professors, women compared to men perform more service work (Guarino & Borden, 2017) and occupy more teaching-intensive rather than research-intensive positions (Eagly, 2020).

Alongside these structural changes to jobs are changes in salary and perceived status that structurally reinforce gender segregation. For example, when the United States committed to providing universal access to education in the late 1800s, schools were incentivized to hire women

as teachers because they could be paid a much lower wage (Grumet, 1988). Furthermore, occupations largely dominated by women tend to carry less status and monetary rewards compared to those dominated by men (England, 2010; Blau & Kahn, 2017). As mentioned earlier, salaries of occupations tend to drop as more women enter that field (Harris, 2022; Ridgeway, 2015). Because men are often expected to fulfill the role of their family's main breadwinner, these lower paying occupations are then less attractive for men, which reinforces persistent gender segregation as well as gender wage gaps.

Biased outcomes resulting from algorithms and artificial intelligence

Another form of systemic bias is found in the increasing use of artificial intelligence (AI), that is, the application of high-complexity predictive models in various domains of life. Because AI is based on machine learning algorithms synthesizing patterns of covariation in large datasets, the presence of gendered associations in those datasets have the potential to perpetuate gender stereotypes and discrimination (Caliskan et al., 2017). In 2018, Amazon stopped using an AI recruiting tool because it exhibited biased results disfavoring women (Dastin, 2018). Prejudice in AI need not be so obvious, however. Google search algorithms for "person" yield photos of more men than women, particularly in countries with greater gender inequality, thereby revealing a society's androcentric biases (Vlasceanu & Amodio, 2022). Such entrenched biases can have consequences for human decision-making. People experimentally exposed to these androcentric results in a second study made more gender-based hiring decisions.

In other cases, non-gender related specifications programmed into algorithms can lead to unforeseen gender biases in outcomes. One study revealed that an algorithm was less likely to show job ads in STEM fields to women compared to men, because targeting young women (a prized demographic group) was simply more expensive and the algorithm was set to optimize costs (Lambrecht & Tucker, 2019). It is not only important for politics and the machine learning industry to develop techniques and regulations for eliminating such biases (see for example, Ascarza & Israeli, 2022), but also for social psychologists to better understand how people will understand and react to them. It is troubling, for example, that people believe that algorithms discriminate less than humans (Jago & Laurin, 2022). However, knowing that such biases can and do exist encourages a responsibility to guard against them.

Environmental Signals Of Inclusion

Masculine defaults in male-dominated fields

In addition to the societal conditions that create realistic barriers for one gender compared to others, environments can also contain more subtle signals of inclusion that differently attract women and men. Relevant to gender disparities, many environments dominated by men have entrenched masculine defaults that make it more difficult for women to perceive the environments as fitting their different self-aspects or values (Cheryan & Markus, 2020). These defaults may be signaled by organizational ideas, values, ideologies, and beliefs about who makes a successful member of an organization. Masculine defaults also can be signaled simply by the underrepresentation of women in the organization. For example, when STEM students watch a video of a science conference displaying a male-dominated compared to a balanced gender ratio of attendees, women (compared

to men) show greater cardiovascular stress responses and vigilance to signals of threat in the environment (Murphy et al., 2007).

Extreme examples of masculine defaults include the hypermasculinized "bro culture" in many Silicon Valley tech companies such as Uber, that have included norms for ruthlessness and aggression, unconstrained working ethics, prioritization of young macho men, and sexual harassment (Griffith, 2022; Isaac, 2017). Such organizations cultivate a "masculinity contest" norm, in which employees feel the need to prove their "masculinity" by dominating and ruthlessly competing with others (Glick et al., 2018). These environments systematically disadvantage women and gender-nonconforming men, in part, by devaluing communal behaviors. And even when women show assertive and dominant behavior that fits the masculine-typed culture, they receive greater backlash because they are still expected to let others take the lead (Berdahl et al., 2018). In addition, masculinity norms that frame work as a contest undermine women's sense of belonging, as they reflect a prevailing belief that brilliance is associated more with men than with women (Vial et al., 2022).

However, masculine defaults are not always so extreme and easily detectable. For example, masculine values of competition and status can be embedded in organizational structures and disadvantage women in non-obvious but pernicious ways. Take, for example, research on the paradox of meritocracy, whereby an organizational emphasis on selecting the "best and the brightest" employees leads people to promote and reward men over women. In one set of studies, emphasizing this "reward the best" frame for performance evaluations led managers to offer smaller financial bonuses to women than to men, whereas no such gender gap existed without this emphasis (Castilla & Benard, 2010; Seron et al., 2016). Similarly, a 'mirrortocracy' effect (Bueno, 2014) occurs when an organization's ostensibly objective and meritocratic criteria actually reflect job-irrelevant qualities of their current employees (Rivera, 2012; Wehde, 2018).

Reducing masculine defaults

Research points to several strategies for reducing masculine defaults in an organization to promote gender equity. One approach is to institute organizational policies that foster greater gender inclusion by being mindful of specific constraints women might face. For example, research with engineers finds that the presence of more gender-inclusive policies (e.g., flexible work policies, equal access to leadership training, gender-diverse safety equipment) predicts women's greater feelings of inclusion, in part, by increasing women's feelings of value fit and fostering more supportive interactions with men in their organization (Hall et al., 2018, 2022).

Another approach is to directly counteract masculinity contest norms by emphasizing more communal norms for psychological safety, open communication, and teamwork. In one case study on offshore oil platforms, organizational initiatives changed the formerly masculine culture and instead encouraged employees to acknowledge their limitations, attend to their and others' feelings, and call out people's safety violations; with real benefits for physical and emotional safety (Ely & Meyerson, 2010). In an experimental study with management students, an intervention that reduced the masculine construal of a leader role and instead emphasized feminine demands such as cooperation and teamwork reduced women's physiological stress response in a job interview for the leadership position, with no effect on men's stress levels. (Nater et al., 2024). Relatedly, because STEM environments are typically perceived as lacking communal opportunities to work with or help others (Diekman et al., 2017), highlighting these opportunities can successfully narrow gender gaps in STEM interest (Diekman et al., 2011; Steinberg & Diekman, 2018).

Organizations may not only promote a more gender-inclusive culture but can also make changes to attract more women in the first place. After all, increasing the representation of women can not only change the culture of an organization but can also provide women with mentors and role models that reduce stereotypical associations and boost other women's sense of efficacy and belonging (Dasgupta & Asgari, 2004; Young et al., 2013). To hire more women, organizations sometimes adopt preferential hiring practices, and research finds such practices can be effective. For example, women are more likely to apply for leadership positions when the job advertisement mentions proactive efforts to hire women (Nater & Sczesny, 2016). Relatedly, academic economists asked to decide between two equally competent job applicants of different genders more often ranked the woman first when they learned the university was committed to preferential hiring of women as a tie-breaker, but more often ranked the man first when told the university was committed to excellence (Henningsen et al., 2022).

Consistent with such data, more formal quota policies have been adopted in various nations and organizations. For example, the European Union has mandated that by mid-2026, large publicly listed companies have at least 40% women on their non-executive boards (or 33% women when including C-suite executives; European Commission, 2022). There is a danger, however, that such quota policies can reinforce gender stereotypes and stigmatize women as incompetent unless efforts are made to ensure that the women who are hired for leadership roles are seen as deserving of and fit for their role (Heilman et al., 1997; Zehnter & Nater, 2025). In fact, quota-based hiring (that seems to deprioritize merit) can undermine women's aspirations (Leslie, 2019). Experimental research even finds that while exposure to a merit-based selected woman leader can boost women's interest in a leadership position, a quota-based selected leader only serves as an inspiring role model when her competence and success as a leader is emphasized (Nater et al., 2023).

Feminine defaults in communal fields

Although more research has focused on how masculine default environments affect women, parallel effects might be found for feminine default environments. The mere knowledge of systemic gender bias against men in HEED domains can contribute to gender disparities in these contexts. When participants read a fictitious newspaper article about gender bias against men being hired in fields largely occupied by women, men reported lower belonging and aspirations to participate in these environments than did women; no such difference emerged when the environment was presented as being gender equal (Moss-Racusin et al., 2022).

The proscriptions against men's weakness and emotionality can further contribute to norms against men engaging in feminine activities (Bosson et al., 2005). If men believe that other men devalue being communal, this can undermine their interest in communal activities. In experimental research, men were more interested in communal activities when they learned that other men around them value these qualities and see them as congruent with agentic male-typed qualities (van Grootel et al., 2018). Such evidence suggests that efforts to align men's self-perceptions with feminine defaults of communion might attract more men to careers in the care economy (Croft et al., 2015).

Environmental defaults excluding gender minorities

Environments can also present physical cues of exclusion that pose real concerns for the health and safety for some gender groups. Most notably, the lack of access to gender-neutral restrooms is a key

form of discrimination against nonbinary and transgender people (Sanders, 2022). A majority of American transgender individuals (60%) have avoided using public restrooms and 8% (compared to 1% in the general population) developed kidney or urinary tract infections as a result (James et al., 2016). For women in STEM workplaces, a lack of access to well-fitting personal protective equipment not only undermines their ability to portray a professional image but also constitutes a real safety threat (Foulis, 2020).

Taken together, various cues in an environment can both determine the degree to which gender is salient and directly create gender biased outcomes. With their numerous effects on workplace outcomes, health, and well-being, these biases may be considered a property of an environment rather than located solely within its people (Murphy et al., 2018).

Situations can cue stereotype threat

Another implication of masculine default cultures is their potential to cue the experience of stereotype threat (S. J. Spencer et al., 1999, 2016). Stereotype threat occurs when subtle situational reminders that bring to mind negative stereotypes about an ingroup undermine a person's ability to perform at their true potential. Meta-analyses of these effects suggest that women sometimes perform more poorly than men on complex math tests in situations that remind them of well-known negative stereotypes about women's lower math ability (ds range from 0.22 to 0.29; R. A. Doyle & Voyer, 2016; Flore & Wicherts, 2015; Picho et al., 2013, but with caveats that publication bias might overestimate these effects). When stereotype threat occurs, it is thought to reflect the degree to which environmental cues to exclusion can impair working memory capacity by inducing physiological stress, meta-monitoring of one's performance, and active efforts to regulate the resulting negative thoughts and emotions (Schmader et al., 2008).

Stereotype threat effects on women's math performance are not inevitable and depend in part on the degree to which these negative stereotypes are prevalent in the culture and known to young girls or women (Gonzalez et al., 2021; Picho & Schmader, 2018). The evidence that gender stereotypes about competence have changed dramatically over time raises the possibility that stereotype threat effects on girls' and women's math performance might also be weakening. Furthermore, although stereotype threat about women's quantitative performance has been widely studied, there is also evidence that a similar phenomenon can impair women's performance in athletic activities (Gentile et al., 2018) and driving (N. C. J. Yeung & von Hippel, 2008).

Situations can cue avoidance

Distinct from the effect on performance, environments can contain identity-contingent cues that signal feelings of fit for those who match the default and a lack of fit for those who do not, cuing a tendency to approach or avoid that setting. Schmader and Sedikides's (2018) SAFE model suggests that state authenticity is the experience of one's fit to a given environment. This model describes how individuals thrive in environments that signal one or more types of fit but will avoid the experience of misfit in contexts that do not activate a sense of the self as "true" (self-concept fit), afford one's valued goals (goal fit), or contain people who validate, accept, and respect a person for who they are and the contributions they make (social fit). When environments are disproportionately created by members of one group, they are more likely to contain cues that signal fit to that group but might elicit a lack of authenticity for other groups. Concerning gender,

some STEM environments for example can signal greater fit for men than for women (Schmader, 2023) whereas care environments can signal greater fit for women than for men (Croft et al., 2015).

VII. MAKING PROGRESS TOWARD GENDER EQUALITY

This chapter has reviewed the current state of the literature on gender differences and inequalities, and the particular ways in which stereotypes and prejudice lead to and reinforce those disparities. Having reviewed evidence that social and structural biases can contribute to gender inequality, the next section discusses how social psychological research has and continues to understand progress and barriers toward achieving greater gender equality. Given that a separate chapter in this handbook reviews the vast literature on prejudice reduction (Devine, Ash, & Scott, 2025), this chapter focuses on synthesizing how the many themes of this chapter relate to people's perceptions of, resistance to versus support for, and efforts to bring about gender equality.

Changing Approaches Toward Gender Equality

The first challenge in efforts toward achieving gender equality is simply defining what such equality would look like and what metrics might measure it. In addition, such definitions and measures have and will continue to change over time. In the United States, for example, the passing of Title IX in 1972 and the Equal Rights Amendment in 1979 marked a new era of women's increased access to educational and employment opportunities. Consistent with this focus on gender equality as equal opportunity, social psychological research at the time focused on measuring explicit forms of sexism and prohibitions against gender discrimination such as that experienced by Ann Hopkins at Price Waterhouse described above. From the 1970s to the 1990s, women in many Western nations increasingly entered into the labor force, post-secondary education, and fields previously dominated by men such as law, medicine, and management. Alongside these societal changes, research found that people's explicit reports of stereotypes (e.g., about women's competence) and prejudice (e.g., against women in the workplace) have reduced over time.

Even as these reductions in overt gender-based discrimination or harassment have occurred, more subtle barriers to vertical and horizontal gender equality have persisted, and gender integration has stalled. To understand these barriers, social psychology near the end of the 20th century shifted began documenting evidence of more subtle and implicit forms of gender bias that can impair women's ability to perform and compete at the same level as men in certain domains. To address the subtle biases that undermine women's success in the workplace, research proliferated on the value of positive role models to inspire women's career pursuits and dismantle gender stereotypes. Governments, organizations, and funding agencies also allocated resources toward institutional changes that would encourage an increasing number of women to enter and excel in science and quantitative fields as well as leader roles. Perhaps as a result, gender gaps in science and math performance have narrowed, and the perception that STEM = male has weakened. Relatedly, perceptions of leaders as being masculine have decreased over time. Yet, fields such as engineering, computer science, and top leadership positions, which provide the most lucrative and high-status career opportunities, remain predominantly occupied by men.

Due to this apparent inertia in achieving gender equality in occupational representation, status, and salaries, gender research has begun to focus more on systemic sources of bias and discrimination

(see Richeson, Rucker, & Brown, 2025 for a similar discussion of systemic racism). Distinct from the stereotypes and prejudiced attitudes in the minds of individuals, contexts themselves provide both real and cued constraints that reinforce gender inequality even in groups of otherwise egalitarian individuals. This comparably new focus on systemic bias implicates men's role in fostering gender equality. Rather than casting men as blatantly sexist or misogynistic, current social psychological research points toward a reexamination of tacitly accepted masculine value structures that inhibit women's vertical integration and inclusion (e.g., through masculine default barriers) as well as continued efforts toward horizontal integration (e.g., with an added focus on increasing men's interest in care-oriented roles or occupations).

This last point suggests that future social psychological research on gender equality will need to expand its focus beyond social psychological constraints faced by women to consider the complementary constraints faced by men. Although hints of this topic have appeared throughout this chapter, the vast majority of research continues to focus on gender stereotypes as constraining women. And yet, the largest stereotyped gender difference concerns men's presumed lack of communality, not women's lack of agency (either dominance or competence). Also, men face larger proscriptions and resulting backlash than women for acting in counter-stereotypic ways. As a result, men are underrepresented in fields such as nursing and education that combine to form the care economy, the largest sector targeted for job growth in the coming years. Men also continue to spend less time than do women directly contributing to the care of their children, even though research shows that father-child relationships are psychologically beneficial to both fathers' and children's well-being (Croft et al., 2015). Finally, men's reduced role in care has implications for both vertical and horizontal gender equality. If men are constrained from taking on these roles, many women will feel constrained to fill them.

Another important change in research on gender equality is the expanded focus from gender as a binary categorization to understand more diverse experiences of gender. Social psychological research will continue to yield insights into the nature of gender identity and how binary-based stereotypes, as well as prejudice against gender nonconformity, continue to threaten many people's ability to live authentically with transgender, genderqueer, or nonbinary identities. In addition to the need for more research examining gender identity as a continuum, the need to further understand identities at the intersection of gender and other demographic characteristics, including age, race/ethnicity, and socioeconomic status. Much of what social psychology has documented about gender stereotyping and prejudice applies predominantly to people's views of young, middle-class, White women and men from Western cultures. These findings do not always generalize more broadly.

Related to the last point, this chapter has reviewed several examples of how gender disparities are not narrowing across time or cultural context, despite evidence of weakening stereotypes and prejudice. In more economically developed countries that seemingly provide women and men with equal opportunities, researchers have sometimes noted larger gender gaps in STEM interest and performance (Soylu Yalcinkaya & Adams, 2020), communal self-views (Kosakowska-Berezecka et al., 2022), and prosocial preferences (Falk & Hermle, 2018). Although such effects have been labeled a "gender equality paradox" (Stoet & Geary, 2018), other research suggests that they are tied more to economic development than to gender equality per se (Richardson et al., 2020) and could be exaggerated by measurement artifacts (Marsh et al., 2021).

It remains somewhat unclear what explains these paradoxical patterns. Some suggest greater gender differentiation in the context of greater freedom might suggest inherent sex differences that

motivate preference (Stoet & Geary, 2018). Others point to deeply ingrained gender stereotypes and essentialized beliefs that, alongside a 'follow your passions' ideology, reinforce gender segregation (Soylu Yalcinkaya & Adams, 2020). We take a somewhat distinct view and point to evidence that post-industrial societies promote a deeply hierarchical labor market that contains greater vertical and horizontal role specialization (Charles & Grusky, 2004). These capitalistic hierarchies also drive a cultural prioritization of individualism over communion (Diekman et al., 2005; Santos et al., 2017). Together, these economic and cultural features of wealthier countries promote gender segregation as an efficient but constraining strategy for filling these differentiated roles and occupations. The tendency to associate communion (a collectivist trait) more with women and dominant-agency (an individualist trait) more with men also guides and reinforces a gendered division of labor. Future research needs, however, to identify the boundary conditions and mechanisms of such effects.

Need For Cross-Gender Allyship

Efforts toward achieving gender equality require joint participation and allyship from people of all genders, but perhaps especially from cisgender men. These efforts must begin with a shared acknowledgment that inequalities still exist and a moral conviction to address them (Radke et al., 2020). Notably, in a 2021 Gallup Poll, 61% of American men were satisfied with how women are treated in society and the same percentage believed that women have equal job opportunities as men (Brenan, 2021). In contrast, only 44% of women were satisfied with how women are treated and only 33% believed that women have equal job opportunities. Again, these gender disparities are most pronounced among White Americans; men of color are more likely to acknowledge the continued barriers women face.

Although men compared to women are less likely to believe that gender bias continues to be a problem, men also are more concerned about gender bias than people typically think. Both men and women underestimate men's concerns about gender bias but are accurate about women's beliefs that gender bias is a problem (De Souza & Schmader, 2022; Goh et al., 2017). These beliefs about men's lack of concern with gender might inhibit men's allyship behavior. In fact, men who were more likely to underestimate other men's gender bias concerns reported lower allyship intentions, an effect that was stronger for men who were more concerned about their status and image as a man (De Souza & Schmader, 2022). Such findings reveal that pluralistic ignorance (of men's bias concerns) might inhibit men's allyship behavior.

Efforts to increase men's observed commitment to gender equality are important, particularly because men's higher status and access to resources continue to grant them an outsized role in fostering inclusion. As reviewed, women's daily conversations and social ties with men, not with women, are particularly predictive of their feelings of social identity threat and inclusion (Cyr et al., 2021; Hall et al., 2019). Similarly, in STEM contexts, performance feedback from men (versus women) plays a larger role in young women's (but not men's) self-perceptions and belongings (L. E. Park et al., 2018). At the same time, men's involvement in allyship actions must center on the needs and concerns of women and other marginalized groups. Men's allyship actions are well-received from men who are perceived to be internally motivated and trustworthy, and to have a lower pretense of power (J. W. Park et al., 2022).

The possible benefits of greater allyship from men are clear. However, system justifying motives can make some men resistant if not hostile toward such efforts. Even among those men motivated to work toward greater equality, concerns with saying or doing the wrong thing or behaving out of

line with prevalent norms of masculinity can make cisgender men reluctant to take meaningful action. Furthermore, evidence on the *queen bee* phenomenon suggests that women who rise into positions of power typically do so by conforming to the masculine defaults described above (Faniko et al., 2021). In such cases, these women then enforce the gender hierarchy by underestimating younger women's career commitment (Faniko et al., 2017). This is problematic because when women actively mentor junior women, they can be especially beneficial (more so than men as mentors) in fostering women's career motivation and belonging (Dennehy & Dasgupta, 2017; Wu et al., 2022). Future research will need to identify effective ways to enlist allyship action toward gender equality from both men and women, especially from those in positions of power and influence.

Bias Toward Gender Research

Within social psychology as a discipline, men's allyship and women's contribution toward gender equality could take the form of greater involvement, acceptance, and amplification of research on these topics. Currently, there continues to be skepticism against research on gender bias and related topics (Moss-Racusin, 2021). Controlled experiments find that men are less likely than women to believe the results of research reporting gender bias (compared to research reporting no evidence of bias), a gender difference that was stronger among STEM than non-STEM faculty (Handley et al., 2015). Furthermore, when women research gender (much like when people of color do research on race/ethnicity), the work is assumed to be less rigorous and more ideologically biased (Rios & Roth, 2020). Perhaps as a result of these biases, or scholars' concerns about them, research on gender bias receives less funding and tends to be published in lower-tier journals than research on comparable instances of social discrimination (Cislak et al., 2018). Such biases are not confined to research in social psychology. Medical research conducted on men is deemed to be more publishable, even though research conducted on women is perceived to be of higher value to medical science (Murrar et al., 2021).

Biases against gender research might contribute to broader ongoing trends of continued gender disparities faced by women in academic psychology. Although women make up a large portion of psychological scientists, especially among early career scholars, there are also signs of ongoing gender gaps in the field (Gruber et al., 2021). Men and women come into tenure track positions with equivalent qualifications, but over time, a mix of systemic advantages, interpersonal biases, and internalized stereotypes and norms allow men to publish more, obtain more grant money, earn higher salaries, and achieve greater eminence. Greater integration and collaboration among women and men (including on gender scholarship) might be one possible solution to these challenges. Although the broader benefits and pitfalls of diversity will be discussed in another chapter of this handbook (Shelton & Turetsky, 2025), research reveals the benefits of gender diversity in science. Gender-diverse teams in the medical sciences produce research that is more novel and impactful than gender-homogenous teams (Y. Yang et al., 2022), and women scientists have played an important role in the movement toward open science (Murphy et al., 2020). Within science more broadly, and psychological science in particular, efforts must still ensure that women not only have equal opportunities to enter science but to be fully integrated into scientific endeavors without having themselves and the topics they study devalued.

CONCLUSION

In sum, social psychological perspectives of gender reveal it to be an integral aspect of identity that not only shapes self-definition but also how people of different genders are perceived and treated. Although gender stereotypes and prejudice vary across time and culture, there continues to be prejudice and backlash against those who do not conform to the norms of their gender group, with implications for justifying and maintaining a gendered status hierarchy. There have been ongoing patterns of vertical and horizontal gender segregation, even in societies that have made great advances toward gender equality. Moreover, prejudice and stereotypes against those with gender-diverse and intersecting identities are distinct and require continued research. Granting some biologically based differences by gender, this chapter has focused on disparities in roles, outcomes, and behavior that can be magnified and maintained by internalized stereotypes, interpersonal discrimination, and systemic biases engrained in social structures, institutions, and technologies. Translating social psychological theories and findings into greater gender equality will require cross-gender collaborations that focus not only on social psychological constraints on women but also constraints on men.

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ENDNOTES