# How Are Gender Norms Perceived？ 

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## DISCUSSION PAPER

## SAM 05／2023

ISSN：0804－6824
March 2023

This series consists of papers with limited circulation，intended to stimulate discussion．

# How Are Gender Norms Perceived?* 

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March 21, 2023


#### Abstract

Actual and perceived gender norms are key to understanding gender inequality. Using newly-collected, nationally representative datasets from 60 countries covering $80 \%$ of the world population, this paper studies gender norms on two policy issues: basic rights, allowing women to work outside of the home, and affirmative action, prioritizing women when hiring for leadership positions. Misperceptions of gender norms are pervasive across the world, and the nature of the misperception is context-dependent. In less gender-equal countries, people underestimate support for both policies, particularly support among men; in more gender-equal countries, people overestimate support for affirmative action, particularly support among women, and underestimate support for basic rights. Gender stereotyping and overweighting of minority views are potential drivers of the global patterns of misperceptions. Our findings indicate how misperceptions of gender norms may obstruct progress toward gender equality and contribute to sustaining gender policies that are not necessarily favored by women.


Keywords: social norms, misperceptions, gender.

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## 1 Introduction

The lack of gender equality is a major issue in all parts of the world, but the nature of the gender gap varies significantly across countries. It ranges from women not having the same basic rights and freedom as men (Jayachandran, 2015), to women being underrepresented in leadership positions in both private and public sectors (Bertrand, 2018). Actual and perceived gender norms represent major obstacles to progress towards gender equality (Fernández, 2007; Fernández and Fogli, 2009; Field et al., 2021), and thus it is of great importance to understand how they vary across societies and policies. ${ }^{1}$ Simple informational interventions may be able to correct miscalibrated perceptions of gender norms and lead to fast changes in the societal equilibrium (Bursztyn and Yang, 2022), while actual gender norms are often slow-moving (e.g., Alesina, Giuliano and Nunn, 2013) and may require deeper interventions to be changed (Dhar, Jain and Jayachandran, 2022).

Bursztyn, González and Yanagizawa-Drott (2020) show that misperceptions of gender norms restrict women's basic rights in Saudi Arabia and that a simple policy intervention correcting these misperceptions could improve the situation for women. They establish that the vast majority of men in Saudi Arabia privately support women working outside the home, but underestimate the extent to which others share this view. Correcting this misperception of the gender norm causes a significant increase in women's involvement in the labor market in their study. But to what extent can we generalize from the findings in Saudi Arabia? They may not be representative of broader patterns, but rather specific to a particular cultural context and level of gender inequality. Are misperceptions of gender norms also relevant in more gender-equal societies and for different margins of gender inequality, such as, for example, the underrepresentation of women in leadership positions?

In this paper, we take a global perspective. Using a newly collected nationally representative dataset from 60 countries that represent over $80 \%$ of the world population, we study actual and perceived gender norms on two distinct policies: 1) basic rights, allowing women to work outside of the home, and 2) affirmative action, prioritizing women when hiring for

[^1]leadership positions. The global focus allows us to establish a comprehensive understanding of how misperceptions of gender norms vary across the world and between policies, and to investigate whether there are general mechanisms that can explain misperceptions of gender norms in society. The study was implemented as part of the Gallup World Poll 2020 with a between-individual survey design. Participants were randomly allocated either to a basic rights module or to an affirmative action module. We first elicited the participants' support for the respective policy, before eliciting their perceptions about the extent to which other participants supported the policy. Perceptions were elicited separately for the support among men and the support among women in their country.

A number of measures were taken to validate our approach. First, we extensively tested the study design with cognitive interviews, conducted in-depth quality checks of the translations to 108 country language combinations, and followed strict procedures in the interviews. Second, we provide evidence showing that the findings are not driven by social desirability bias. In the survey, we implemented a treatment manipulation where some participants were asked about the extent to which they believed that others "would say that they agree" with the policy, while other participants were asked about the extent to which they believed that others "would truly agree" with the policy. We find only minimal differences in perceptions between the two treatment manipulations, which is consistent with findings from a growing literature indicating that these types of misperceptions are indeed real and not just an artifact of survey measurement issues (see Bursztyn and Yang (2022) for a recent survey and meta-analysis). We also show that direct opinion elicitation and methods with higher degrees of cover yield very similar responses in both settings with higher and lower levels of gender inequality. Finally, to show that perceptions about gender norms at the national level are also important for perceptions about gender norms in local peer groups, we implement an independent experiment in the United States and provide evidence of gender norms at the national level causally affecting perceptions about gender norms at the state level and at the workplace.

A first contribution of the paper is to provide global evidence on gender norms in terms of actual support for basic rights and affirmative action for women. We find that there is widespread support for women's basic right to work outside of the home across the world: a majority of the population is in favor in every country we study, often by a wide margin. While the share of women in favor is essentially always higher than the share of men in favor,
we also find that a majority of men are in favor of women's basic rights in all countries. However, the difference in the support among men and the support among women is highly heterogeneous across countries. In the least gender-equal countries, like Jordan and Algeria, the average gender gap in actual support is more than 30 percentage points ( pp ), while this gender gap almost vanishes and there is close to consensus support for basic rights in the most gender-equal countries, like Canada and Norway. With respect to actual support for affirmative action for women, the picture is more nuanced. In 37 countries, we find that the majority view of both men and women is to support affirmative action; in 12 countries, we find that the majority view of both men and women is not to support it. The level of support for affirmative action for women is strongly negatively associated with the level of gender equality in the country, with, on average, the majority of the population being against affirmative action for women in the most gender-equal countries. Similar to basic rights, more women than men support affirmative action for women in virtually all countries, with the gender gap being greater than 10pp in two-thirds of the countries in our sample. The largest gender gap in support for affirmative action is in Israel, where only a minority of men support affirmative action for women while a large majority of women support it.

The main contribution of this paper is to provide novel evidence on people's perceptions of the support for these policies across the world. We show that misperceptions (defined as the difference between perceived support and actual support) are ubiquitous. How they manifest, however, depends on the policy issue, the level of gender equality in the country, and whether the perceptions are about the support among men or the support among women. We establish four stylized facts about misperceptions of gender norms across the world. First, there is a universal underestimation of the support for basic rights for women. Second, men are misperceived more than women in terms of support for basic rights. Taken together, these two facts suggest that correcting misperceptions of gender norms may be a promising approach to promoting gender equality in countries where the basic rights of women are challenged, in line with the evidence from Saudi Arabia (Bursztyn, González and Yanagizawa-Drott, 2020). To illustrate, more than $80 \%$ of males support women's basic right to work outside of the home in Tanzania and Turkey, while this is believed to be a minority view among males. Third, people tend to underestimate support for affirmative action for women in less gender-equal countries, while they overestimate support for this policy in more gender-equal countries. Fourth, misperceptions about support for affirmative
action are mostly driven by people underestimating men's support in less gender-equal countries, while it is mainly driven by overestimating women's support for this policy in more gender-equal countries. To illustrate, consider South Africa and Canada. In South Africa, more than $90 \%$ of men support affirmative action for women, while the perception is that only a minority of men do; in contrast, in Canada, people believe that almost $70 \%$ of women support affirmative action, while it is in fact a minority view. The finding of women's support for affirmative action being overestimated in the more gender-equal countries is striking and highlights that misperceptions of gender norms in some situations may contribute to sustaining gender policies that are not necessarily favored by women themselves. Taken together, the four stylized facts about misperceptions suggest that the societal equilibrium in many countries may change quickly if people's perceptions about the gender norms in society are corrected.

Our final contribution is to seek to understand potential forces that together can reconcile the main patterns we observe globally. We first study them separately by examining their prevalence in the data, before returning to how they may explain the stylized facts across the global gender equality spectrum. To build intuition, consider two observations in our data: the support for basic rights in Zimbabwe and the support for affirmative action in the Netherlands. These are two countries on opposite ends of the global spectrum of gender equality, with Zimbabwe in the bottom tercile and the Netherlands in the top tercile.

We first consider perceptions about the views of each country's population as a whole (that is, combining perceptions about the views of both women and men). In Zimbabwe, the majority of the population supports the basic rights policy, approximately $80 \%$, whereas the perceived support is only around $60 \%$. In the Netherlands, only a minority supports the affirmative action policy, approximately $30 \%$, whereas the perceived support is closer to $50 \%$. Hence, in both countries, people seem to overweight the minority view among the overall population. While it is beyond our scope to explain why minority overweighting may arise, we propose a list of potential drivers, from perceptions potentially reflecting an outdated true state of the world, to the minority getting disproportionate media coverage, to "vocal minorities" being more active in the public arena, to the presence of cognitive phenomena previously documented in the literature. We next show that minority overweighting is ubiquitous: for essentially all countries and for both policies examined, people tend to overestimate the size of the minority position regarding the policy, regardless of whether this
minority is against or in favor of the policy. ${ }^{2}$
We then consider perceptions about the views of women and men separately, and argue that an additional force is also at play to explain the differences there. To fix ideas, consider the same two countries again. In Zimbabwe, actual support for the policy among women is about $87 \%$, whereas perceived support on average is around $78 \%$. Among men, actual support is around $72 \%$, but people perceive it to be $37 \%$. In other words, there is underestimation of support among women and men, but male support is much more severely underestimated ( 9 versus 35 pp ). In the Netherlands, actual support for the policy among women is about $35 \%$, with perceived support on average around $62 \%$. Among men, actual support is around $29 \%$, with perceived support on average around $36 \%$. There is overestimation of support among women and men, but female support is much more severely overestimated ( 27 versus 7 pp ). In both countries, conditional on a basic pattern of minority overweighting, perceptions about women are further distorted upward, while perceptions about men are further distorted downward. We argue that this adjustment is consistent with the logic of gender stereotyping: men are relatively more associated with less support for policies that mean to help women, while women are relatively more associated with more support for these policies. This pattern of belief adjustment could be a reflection of heuristics based on "representativeness," as formalized in Bordalo et al. (2016, 2019); it could also be a consequence of a skewed representation of gender views among politicians and other public figures; finally, it could be perpetuated by narratives provided by mass media. Regardless of the underlying reasons (which are beyond the scope of our study) we find that the stereotype adjustment just described is also ubiquitous, across countries and policies examined.

Combining these two nearly universal forces - "minority overweighting" and "gender stereotype adjustment" - we are able to rationalize the four stylized facts we uncovered.

This paper connects to several strands of the literature. First, we contribute to the work in economics and other social sciences that has measured gender attitudes and norms, particularly those pertaining to women's rights and labor market opportunities. ${ }^{3}$ While several

[^2]papers have exploited ancestral and cultural characteristics to study the persistent effects of gender norms (Alesina, Giuliano and Nunn, 2013; Ashraf et al., 2020; Giuliano, 2020; Becker, 2021), survey data are often used for measuring contemporary attitudes (see, for example, Scott, Alwin and Braun (1996); Treas and Widmer (2000); Brooks and Bolzendahl (2004); Aboim (2010); Cotter, Hermsen and Vanneman (2011); Fortin (2015)). ${ }^{4}$ This literature has provided new insights on people's support for women's basic rights, but also documented attitudes towards race-based and gender-based affirmative action in the U.S. and other countries (Parker, Baltes and Christiansen, 1997; Konrad and Hartmann, 2001; Fryer and Loury, 2005; Steinbugler, Press and Dias, 2006). To the best of our knowledge, this is the first paper to examine attitudes and perceptions over both basic rights and affirmative action among men and women globally, across the distribution of gender equality. We are thus able to uncover general insights and lessons that go beyond specific settings and policy issues.

By measuring perceptions about gender attitudes and comparing them with actual attitudes, we provide a global perspective to the literature that has shown the presence of strong misperception in this domain, and we separately measure the perceptions of women's and men's attitudes. While Bursztyn, González and Yanagizawa-Drott (2020) show that misperceptions about men's attitudes towards women's freedom to work outside the home are strong and relevant in the context of Saudi Arabia, little is known about other contexts and about the perception of women's views. An exception is Cortés et al. (2022), who study how perceived gender norms in the U.S. affect tolerance of mothers using a vignette study. Similarly, work in psychology has documented misperceptions of others' attitudes toward affirmative action among college students (Van Boven, 2000). We provide the first evidence on the global pattern of misperceptions over the support for affirmative action. We also document the presence of meaningful differences in how the views of men and women are misperceived. While there has been an active and growing recent literature on misperceptions about others (see the review by Bursztyn and Yang, 2022), to our knowledge, our paper is the first to systematically study misperceptions about a given issue globally. While our main goal is not to test models of stereotype-thinking, our results are consistent with recent work on the topic, both theoretical (Bordalo et al., 2016) and empirical (Bordalo et al., 2019;

[^3]Conlon and Patel, 2022; Exley et al., 2022).
The remainder of this paper proceeds as follows. In Section 2, we describe the global dataset, other data sources, and discuss the different validation approaches that we implemented, including the experiment conducted in the United States to study the relationship between perceptions at the national level and perceptions at the local level. In Section 3, we provide the main evidence on actual and perceived gender norms across the world. Section 4 analyzes potential mechanisms behind the global patterns and examines the role of minority overweighting and gender stereotyping. Section 5 discusses some implications of our findings and concludes.

## 2 The Global Dataset

In this section, we provide an overview of the global dataset on actual and perceived gender norms that we collected in collaboration with Gallup World Poll. We also show that our approach does not suffer from social desirability bias and that it matters for understanding misperceptions about gender norms in local peer groups. Further details about the data set is provided in Online Appendix B.

### 2.1 Global Sample and Survey Implementation

The study was implemented in 60 countries between September 2020 and February 2021, with a median of 1000 respondents in each country and, in total, 66,214 observations. The global sample represents $85 \%$ of the world population and $90 \%$ of the global GDP. It consists of 10 countries from Western Europe, 8 from Eastern Europe and Central Asia, 7 from the Middle East and North Africa, 11 from Sub-Saharan Africa, 11 from the Americas, 4 from South Asia, and 9 from Southeast Asia and the Pacific. Figure 1 illustrates the geographic coverage of the data, with the country names listed in Appendix Table A.1. In all countries, Gallup World Poll used probability-based sampling, and the samples, adjusting for sampling weights, are nationally representative of the resident population aged 15 and older in terms of age, gender, education, and income. ${ }^{5}$

[^4]Figure 1: Study Countries


Notes: The map shows the coverage of the Gallup World Poll 2020. Covered countries are colored, those not covered remain blank. Geo data from Belgiu (2015).

The research team extensively pre-tested the survey instrument. In addition to the standard testing procedures used by Gallup World Poll, we implemented cognitive interviews with respondents in Brazil, Spain, Tanzania, and Turkey, who represented a balanced mix of the key demographic characteristics. These interviews provided valuable feedback on how respondents understood and interpreted the different questions, which we incorporated into the design of the final version of the survey.

The survey was implemented via telephone, except for in India and Pakistan where it was done through face-to-face interviews. The interviews were conducted by local professional enumerators. We translated the survey from English into 108 country-language combinations using standard back-and-forth translation techniques. The research team had native speakers reviewing each translation, in many cases over several iterations, to ensure that the translated version conveyed the same meaning as the English version. The enumerators were instructed to follow the interview script without deviations and were provided with a detailed guide on how to answer a broad range of possible questions from the respondents.

### 2.2 Description of Key Variables

Participants were randomly allocated either to a basic rights module or to an affirmative action module. We first elicited the participants' support for the respective policy, before eliciting their perceptions about the extent to which other participants supported the policy, separately for the support among men and support among women in their country. The detailed survey design is provided in Online Appendix B.

To elicit support for the two policies, we asked them whether they agreed with the following statements:

- Basic Rights: "Women should have the freedom to work outside of the home."
- Affirmative Action:"The government and companies should give priority to women when hiring for leadership positions."

We use the share of sampling-weighted respondents who support the policy on basic rights as a measure of the actual gender norm on basic rights in a country, and correspondingly, we measure the actual gender norm on affirmative action by the share of respondents who support the policy on affirmative action.

To elicit people's perception of the extent to which these policies are supported in their country, we told them that 100 random individuals in their country would be asked the same question they had been asked. Respondents then reported how many of the 100 random individuals they believed would support the policy, which we use as a measure of an individual's perceived gender norm. We asked this question separately about 100 other men and 100 other women, where the order of the gender was randomized.

At the individual level, we measure the misperception of the gender norm as the difference between the perceived gender norm and the actual gender norm, that is, the difference between the share of the 100 random individuals that the respondent believes support the policy and the share of the population that states that they support the policy. A respondent overestimates the support for the policy if he or she reports a higher share than the actual share of support in the country, and underestimates the support for the policy if he or she reports a lower share than the actual share of support. Correspondingly, we measure misperception of the gender norm at the country level by the difference between the share that states that they support the policy and the average perception in the country of how many of the 100 random individuals support the policy.

### 2.3 Supplementary Country-Level Datasets

In the analysis, we match the data from Gallup World Poll with other data sources. In particular, to study how actual and perceived gender norms relate to the level of gender equality in the country, we classify countries according to the UN's Gender Inequality Index (UNDP, 2022). The index captures multiple dimensions of gender equality, including labor market outcomes and political empowerment. We reverse the index such that higher values indicate higher values of equality, and we define it as the Gender Equality Index (GEI). We also show that our findings are robust to an alternative measure of gender equality based on legal aspects (World Bank, 2022). Figure A. 1 illustrates the extent to which our data represents the global spectrum of gender equality as measured by those indices. Finally, we use World Bank data to establish the percentage of the total world population and world GDP covered by our study (World Bank, 2021a,b), and geospatial data from Belgiu (2015) to plot the maps.

### 2.4 Social Desirability Bias

One concern that may arise from interpreting the difference between actual and perceived support for a gender issue is that respondents may have felt that they had to answer in a specific, socially desirable way. In this case, our measure of misperception would not be informative since it would conflate true misperception with social desirability bias (SDB). To address this concern, we developed a novel experimental approach to examine whether SDB is indeed present in our study.

To test for SDB, we randomized participants into one of two versions of the perception questions. In the "Actual" version, respondents were simply asked how many out of 100 random men/women in their country "will say that they agree" with the policy; in the "Truthful" version, respondents were asked how many they think "will truly agree" with the policy. It is reasonable to assume that if respondents were distorting their own answer to the policy question, then they would anticipate that others also distorted their answer. In that case, we should observe a difference in reported perceptions between the "Actual" version and the "Truthful" version of the perception questions. Reassuringly, as we observe in Figure A.2, the answers to the two versions of the perception questions are strikingly similar. In Figure A.3, we show that this is also the case if we consider separately the
perception questions about the support among men and the support among women.
The finding that SDB is not a driver of our results is consistent with what the growing literature on misperceptions has uncovered. The meta-analysis in Bursztyn and Yang (2022) shows, across studies, that misperceptions about others are indeed capturing actual misperceptions, and are not driven by SDB or other measurement issues. Two additional pieces of evidence provide further assurance that SDB is not driving our findings, both in less and more gender-equal countries. First, Bursztyn, González and Yanagizawa-Drott (2020) show that the direct elicitation approach used in the present study and an elicitation method providing a higher degree of cover give very similar levels of support for basic rights in Saudi Arabia. Second, we implemented a pre-registered online survey experiment in the US with approximately 1,000 subjects recruited nationally with the survey platform Prolific, in which we randomized the direct elicitation method or a method providing high cover. The level of support for affirmative action is very similar between the two approaches, and we cannot detect a statistically significant difference. ${ }^{6}$

### 2.5 Relevance of National-Level Perceptions

A long literature on social influence, and in particular, social image concerns, has established that perceptions about local peers causally influence a wide range of behavior (Bursztyn and Jensen, 2017). To study whether our findings on perceptions about gender norms at the national level also matter for understanding local-level perceptions, we complemented the global study with an incentivized online experiment studying the relationship between national-level and local-level perceptions. We decided to focus on studying this relationship for the affirmative action policy in a country with relatively high gender equality (United States) since there is already evidence on how national-level perceptions affect local-level perceptions for the basic rights policy in a country with low gender equality (Bursztyn, González and Yanagizawa-Drott, 2020).

The study was implemented online with about 500 participants from the state of Texas in the United States, using the survey platform Prolific. ${ }^{7}$ The participants were initially

[^5]asked whether they supported affirmative action, in the same way as in the global study. We then conducted an incentivized elicitation of their perception of the support for affirmative action at the national level in the United States. Participants were next randomized either into a treatment group where they were informed about the actual support for affirmative action at the national level in the United States or a control group that did not get any information. Finally, we elicited their perceptions about the support for affirmative action in the state of Texas and among their co-workers.

We find the same pattern of misperception in the experiment as in the global survey. On average, the participants in the experiment underestimate the support of men and overestimate the support of women for affirmative action both at the national level and at the state level. We also find that having misperceptions about the support at the state level is strongly correlated with having misperceptions about the support at the national level, with a raw correlation of about 0.8 for both women and men (see Figure A.5).

Most importantly, the experiment provides strong evidence of national-level misperceptions being of major importance for local-level misperceptions. As shown in Figure A.6, correcting misperceptions at the national level causes a significant change in local-level perceptions, both at the state level and among co-workers. When the participants learn that the support among males is about 11pp higher than they believed in the United States, they increase their belief about the support among males at the state level and among male co-workers with almost 8pp. Similarly, when they learn that the support among females is about 18pp lower than they believed in the United States, they decrease their belief about the support among females at the state level with about 8 pp and among female co-workers with about 6pp. As a consequence, the treated participants end up having close to correct perceptions of the support for affirmative action in their own state. In other words, by eliminating misperceptions at the national level, we almost completely eliminate misperceptions at the local level. Hence, the experiment strongly suggests that national-level misperceptions may not only affect behavior directly, but also indirectly by shaping local-level misperceptions.

## 3 Global Patterns of Gender Norms

This section provides an overview of the main global patterns that emerge from the data collection. We first discuss how gender norms vary across the world, before we discuss the
extent to which these gender norms are misperceived.

### 3.1 Actual Support

Figure 2 Panel a shows the average support for basic rights in all the countries in the study. We observe that the support for basic rights for women is widespread. A large global majority agrees that women should have the right to work outside of the home, with a country-level average of $91.3 \%$. In all countries, the majority view is to support basic rights for women, but there is still substantial heterogeneity in support across countries. The lowest share of support is found in Pakistan (61.0\%), Indonesia (66.0\%), and Algeria (68.0\%), while the highest share of support is found in the US (100\%), the Netherlands (99.8\%), and Croatia ( $99.7 \%$ ). In 41 countries, we find that more than $90 \%$ of the population supports basic rights for women.

In contrast, as shown in Figure 2 Panel b, we find much lower levels of support for affirmative action for women across the world. The global majority, $66.6 \%$, supports the notion that the government and companies should give priority to women when hiring for leadership positions, but there is significant resistance against affirmative action in many countries. The highest share of support is in India (93.5\%), South Africa (93.1\%), and Cambodia (93.1\%), while the lowest share of support is in the Czech Republic (28.4\%), South Korea (29.9\%), and Algeria (30.5\%). In 15 countries, the majority view is not in favor of affirmative action for women.

In Figure 3, we study the extent to which gender norms differ between men and women by country. In Panel a, we observe that in most countries the large majority of both men and women support basic rights for women, with a global gender difference in the share of support of 6.2 pp ( $94.4 \%$ among women versus $88.2 \%$ among men). The lowest share of support for basic rights is found among men in Egypt (56.5\%), Pakistan (54.4\%), and Algeria ( $53.8 \%$ ), and among women in Iraq ( $84.5 \%$ ), Indonesia ( $72.7 \%$ ), and Pakistan ( $68.2 \%$ ). But even in these countries, it is a minority view both for men and women not to support basic rights for women. The largest gender difference in the share of support for basic rights is in Jordan ( $57.5 \%$ support among men versus $88.8 \%$ support among women), Algeria ( $53.8 \%$ versus $84.8 \%$ ), and Egypt ( $56.5 \%$ versus $86.7 \%$ ). However, in most countries, the gender difference in support is rather small: in 46 countries, there is less than a 10pp difference in

Figure 2: Actual Gender Norms throughout the World


Notes: The maps show average support (\%) for basic rights (Panel a) and affirmative action (Panel b) in each country, pooled across men and women. Data: Gallup World Poll 2020, country-level. Geo data from Belgiu (2015).

Figure 3: Global Outlook: Gender Norms

(b) Affirmative action


Notes: The graph shows average support (\%) for basic rights (Panel a) and affirmative action (Panel b) among women (orange), among men (green), and pooled across gender (gray), in a given country. Data: Gallup World Poll 2020, country-level.
the share of support of men and women.
In Figure 3 Panel b, we observe that women are more supportive of affirmative action than men in all countries, with a global gender difference in the share of support of $13.1 \mathrm{pp}(73.1 \%$ versus $60 \%$ ). However, the support among both men and women is strikingly different across countries. The lowest share of support among men is in Hungary (22.3\%), Algeria (14.2\%), and Russia (23.0\%), while the lowest share of support among women is in the Netherlands (35.5\%), Poland (35.3\%), and the Czech Republic (32.1\%). In 37 countries, we find that the majority view of both men and women is to support affirmative action for women, while in 12 countries the majority view of both men and women is not to support it. The largest gender difference in support for affirmative action is in Pakistan ( $63.4 \%$ among men versus $94.3 \%$ among women), Algeria ( $14.2 \%$ versus $47.6 \%$ ), and Israel ( $26.9 \%$ and $66.1 \%$ ), and in most countries women are substantially more supportive of affirmative action than men. In 40 countries, we find a gender difference of more than 10pp in support for affirmative action for women.

In Figure 4, we relate the support for basic rights and affirmative action for women to the level of gender equality in the countries. We split the countries into three terciles depending on how the country ranks on the Gender Equality Index (GEI), based on UN data, with the top tercile representing the countries with the highest level of gender equality. In Panel a, we observe that the lowest level of support for basic rights for women is in the countries with the lowest levels of gender equality. However, even in these countries, we find that the overwhelming majority of both men and women support women's freedom to work outside of the home. In Panel b, we observe that the support for affirmative action follows a very different pattern. There is much more support for affirmative action for women in less gender-equal countries than in more gender-equal ones, both among men and women. In the bottom tercile, $71.1 \%$ of men and $86.8 \%$ of women support affirmative action, while only $42.4 \%$ of men and $54.3 \%$ of women support it in the top tercile. It follows that in many of the most gender-equal societies, it is a minority view to support affirmative action for women, and differences by gender remain sizeable.

Figure 4: Support for Basic Rights and Affirmative Action by Gender Equality Index Terciles and Gender


Notes: The graph shows average levels of support (\%) for basic rights (Panel a) and affirmative action (Panel b) among men (green) and women (orange) conditional on how gender-equal a given country is on a global spectrum, as measured by terciles a gender equality index (GEI). The GEI increases with the equality between women and men. Data: Gallup World Poll 2020, individual-level. Gender Equality Index based on UNDP (2022).

### 3.2 Misperceptions

We now turn to a discussion of people's misperceptions of gender norms. In Figure 5, we show the average misperception of support for basic rights and affirmative action for women in all the countries in the study. We observe that misperceptions are pervasive across the world for both gender norms.

In Figure 5 Panel a, we see that people underestimate the support for basic rights for women in all countries. The country-level average is that people believe that the share of support for basic rights for women is 20.6 pp lower than the actual support. The largest underestimation of support for women's basic rights is in Tanzania ( -32.6 pp ), Bolivia (31.6 pp ), and Peru ( -31.6 pp ), while the smallest underestimation is in Indonesia ( -7.2 pp ), Egypt ( -7.4 pp ), and Pakistan ( -8.5 pp ). In 49 countries, we find that more than $70 \%$ of the population underestimates the support for basic rights.

There is also substantial underestimation of the support for affirmative action for women in many countries, as shown in Figure 5 Panel b. The country-level average is that people believe that the share of support for affirmative action for women is 9.0 pp lower than the actual support. The largest underestimation of support for affirmative action is found in Bolivia ( -31.5 pp ), India ( -30.2 pp ), and Cambodia ( -28.9 pp ). However, in contrast to the universal underestimation of the support for basic rights, we find that there is an overestimation of the support for affirmative action in 20 countries. The largest overestimation is in Poland (20.1pp), Czech Republic (18.1pp), and Hungary (17.2pp). In 31 countries, we find that more than $70 \%$ of the population underestimates the support for affirmative action, while in 12 countries more than $70 \%$ of the population overestimates the support for affirmative action.

Are men or women misperceived more? In Figure 6, we show the level of misperception of men and women separately by country. In Panel a, we observe that men's support of basic rights for women is underestimated more than women's support in almost all countries. Men's support for basic rights is underestimated the most in Brazil (-46.3pp), Mexico (44.5pp), and Bolivia ( -43.4 pp ), while women's support for basic rights is underestimated the most in Tanzania (-23.9pp), Peru (-21.5pp), and India (-20.1pp). The country-level average is that men's support for basic rights is underestimated by 28.6 pp , while women's support for basic rights is underestimated by 13.1 pp . In 51 countries, we find that more than $70 \%$ of the population underestimates men's support for basic rights, while in none of the countries,

Figure 5: Misperceptions about Gender Norms throughout the World


Notes: The maps show misperceptions about support (pp) for basic rights (Panel a) and affirmative action (Panel b) in each country. Misperceptions are defined as the difference between a respondent's perception of the support for the respective policy in their country and the actual support in their country. A positive value (blue) indicates that support is overestimated. A negative value (red) indicates that support is underestimated. Genders are pooled. Data: Gallup World Poll 2020, country-level. Geo data from Belgiu (2015).

Figure 6: Global Outlook: Misperceptions about Gender Norms
(a) Basic rights

(b) Affirmative action


Notes: The graph shows average misperceptions about support (pp) for basic rights (Panel a) and affirmative action (Panel b) among women (orange), among men (green), and pooled across gender (gray), in a given country. Misperceptions are defined as the difference between a respondent's perception of the support for the respective policy in their country and the actual support in their country. A positive (negative) value indicates that support is overestimated (underestimated). Data: Gallup World Poll 2020, country-level.
more than $70 \%$ of the population underestimates women's support for basic rights. We observe the largest difference in the misperception of men's and women's support for basic rights in Chile (27.5pp), Mexico (29.5pp), and Brazil (34.3pp).

In Figure 6 Panel b, we observe that the pattern of misperception of men and women is different for affirmative action. Men's support for affirmative action is misperceived more than women's support in some countries, while women's support for affirmative action is misperceived more than men's support in other countries. Men's support is significantly underestimated in most countries, while women's support is significantly overestimated in a number of countries. The country-level average is that men's support for affirmative action is underestimated by 17.6 pp , while there is on average almost no misperception of women's support for affirmative action across countries, 0.9 pp . Men's support is underestimated most in South Africa ( -44.6 pp ), Colombia ( -42.5 pp ), and Bolivia ( -41.9 pp ), while women's support is overestimated most in Poland (33.2pp), Hungary (27.1pp), and Czech Republic (27.0pp). In 32 countries, we find that more than $70 \%$ of the population underestimates men's support for affirmative action, while in 15 countries more than $70 \%$ of the population overestimates women's support for affirmative action. We observe the largest difference in the misperception of men's and women's support for affirmative action in South Africa (33.6pp), Zimbabwe (31.5pp), and Colombia (30.5pp).

In Figure A. 7 in Online Appendix A, we observe that in most cases the misperceptions do not depend on the gender of the respondent. Men and women are strikingly similar in their misperceptions of the support for basic rights and affirmative action for women, which suggests that the forces driving the patterns of misperception are not primarily genderspecific.

Finally, in Figure 7, we relate the misperceptions to the level of gender inequality in the country. In Panel a, we observe that the misperceptions of the support for basic rights are similar across the terciles of gender equality. The misperception of support for basic rights is almost the same in less and more gender-equal societies, with men always being misperceived more than women. In contrast, we see in Panel b that the misperception of support for affirmative action is very different in the most gender-equal countries than in the less gender-equal countries. In the most gender-equal countries, women's support for affirmative action is significantly overestimated, while there is almost no misperception of men's support. In the less gender-equal countries, we find that both men's and women's
support for affirmative action is significantly underestimated, with men being misperceived more than women.

We summarize the findings on misperceptions of gender norms across the world in the following four stylized facts regarding basic rights and affirmative action for women:

- Fact \#1: Support for basic rights in the population is universally underestimated
- Fact \#2: Men's support for basic rights for women is more underestimated than women's support, essentially everywhere
- Fact $\# 3$ : Support for affirmative action is on average underestimated in low gender equality countries and overestimated in high gender equality countries
- Fact \#4: Men's support for affirmative action for women is more underestimated than women's support in essentially all countries. In low gender equality countries, both men's and women's support are on average underestimated, while in high gender equality countries women's support is overestimated and men's support is not misperceived.

In Online Appendix A, we show that the cross-country patterns of misperceptions are robust to using an index of gender equality in society solely based on the legal aspects of gender equality (see Figure A. 8 and Figure A.9). Table A. 3 to Table A. 14 contain the raw country-level data.

We now turn to an analysis of the mechanisms that may explain these stylized facts of misperceptions.

Figure 7: Misperceptions by Gender Equality Index Terciles and Gender


Notes: The graph shows average misperceptions about support (pp) for basic rights (Panel a) and affirmative action (Panel b) among men (green) and women (orange) conditional on how gender-equal a given country is on a global spectrum, as measured by a gender equality index (GEI). The GEI increases with the equality between women and men. Misperceptions are defined as the difference between a respondent's perception of the support for the respective policy in their country and the actual support in their country. Data: Gallup World Poll 2020, individual-level. Gender Equality Index based on UNDP (2022).

## 4 What Drives the Misperceptions?

In this section, we present two potential forces that together can reconcile the main patterns we observe globally. We first explore them separately by examining their prevalence in the data, before returning to how in combination they may explain the stylized facts across the global gender equality spectrum.

### 4.1 Minority Overweighting

By observing our data, a first pattern becomes clear. To build intuition, consider the same two observations in our data that we discussed in the introduction: the support for basic rights in Zimbabwe and the support for affirmative action in the Netherlands. These are two countries on opposite ends of the global spectrum of gender equality, with Zimbabwe in the bottom tercile and the Netherlands in the top tercile.

Figure 8: Minority Overweighting


Notes: Panel a illustrates deviations from the benchmark under no misperceptions (45-degree line) in the direction of the minority position. The two data points represent average support and perceptions about support, pooled across gender, for Zimbabwe and the Netherlands. Panel b generalizes and shows the data points for the whole sample. Rings (diamonds) show data points for basic rights (affirmative action). Data: Gallup World Poll 2020, country-level.

Figure 8 Panel a plots the actual (x-axis) and the perceived support (y-axis) for these two observations. The 45 -degree line reflects the benchmark under no misperceptions. In Zimbabwe, the actual support for the policy is approximately $80 \%$, but the perceived support is around $60 \%$. That is, only a small minority is against the policy, yet people on average overestimate the size of this minority by about 20pp. In the Netherlands, the actual support for the policy is slightly above $30 \%$, whereas the perceived support is closer to $50 \%$. Also here is the minority view greatly overestimated.

Why do many people in the Netherlands overestimate the minority support for affirmative action for women? Similarly, how come people in Zimbabwe overestimate the size of the minority being against basic rights for women? Even though the two countries are on the very opposite ends of the global gender equality spectrum, and even though the two policies deal with very different aspects of the labor market, the same phenomenon appears to be present. In both countries, people seem to overweight the minority view among the overall population. Why would that happen?

Many reasons could give rise to such minority overweighting. We speculate on a few of them below, recognizing this is not an exhaustive list.

First, perceptions could reflect an outdated true state of the world. For example, the support for basic rights for women among people in Zimbabwe may have been weaker in the past. The country may have moved in a more progressive direction in recent decades but the public debate on the matter, or more broadly the available information in society, is not fully up to date. Similarly, in the Netherlands, support for affirmative action in the past may have been stronger, but as gender gaps in economic outcomes have been reduced, the support for the policy may have waned. Nevertheless, perceptions could be anchored by the past. ${ }^{8}$

Second, distorted perceptions may arise even in the absence of opinions shifting over time. Mass media may play a key role. The minority view may get disproportionate media coverage. This could easily arise from the journalistic tradition of equally covering "both sides" of a policy issue. ${ }^{9}$ Mass media may find it profitable to highlight tensions in society,

[^6]pointing to the lack of a consensus view. Moreover, since hard statistics are seldom included (or available), it may be difficult for the general population to draw correct inference based on observing both sides of an argument in mass media.

Third, and more broadly, vocal minorities may be more active in the public arena. For example, they may be more invested in promoting their position on social media platforms, via public demonstrations, or via political campaigns. An underlying rationale for this phenomenon to arise may simply be that smaller groups are better at collective action. If they feel threatened by the values of the majority, it may encourage their greater political activism. For example, consider the case above from Zimbabwe. Conservative religious groups or leaders in Zimbabwe may be more vocal in the public arena, making clear why (they believe) women should not have the same rights as men. Similarly, in the Netherlands, those groups advocating for affirmative action for women to reduce gender gaps in the country may be particularly dedicated. Specifically, they could be more active in promoting their position compared to those that are against the policy. In all these scenarios, the result could be that a vocal minority is salient to the general population, capturing their attention in a disproportionate manner.

Finally, beyond the salience of vocal minorities, overweighting may arise if perceptions are driven by various related cognitive phenomena proposed and documented in the general literature on belief formation. These include phenomena such as "inattention," "conservatism," or base rate "insensitivity," where beliefs tend to be anchored or driven towards the center. People overestimate the size of the minority as inference is distorted by a limited ability to cognitively process statistical moments. ${ }^{10}$

The various reasons for overweighting the minority position could help explain the pattern observed in the Netherlands and Zimbabwe. However, regardless of the specific reason, a separate question is: How prevalent is minority overweighting for the two gender policies around the world? Figure 8 Panel b plots all the countries in our data, using data on both

[^7]policy issues. The message is clear: minority overweighting appears ubiquitous. Whenever a minority is against the policy, people tend to overestimate the size of this minority. The same is true when a minority is in favor of the policy. When support is split in the population, perceptions tend to be approximately correct.

### 4.2 Gender Stereotyping

While minority overweighting seems to be important to understand perceptions about the overall population, that is, perceptions about both genders combined, we will now show that another force must be also at play when people form perceptions about the views of women and men separately.

We now consider the relationship between actual support and perceived support among each gender separately. Following the previous example, Figure 9 Panel a displays the patterns for basic rights in Zimbabwe and for affirmative action in the Netherlands. The orange dot refers to the observation for women. The green dot refers to observation for men. The solid line connects the two data points in each country, where the overall population support (pooled data) is indicated by a black marker.

In Zimbabwe, actual support for the policy among women is about $86 \%$, whereas perceived support on is around $78 \%$. Among men, actual support is around $72 \%$, but people perceive it to be $37 \%$. In other words, there is underestimation of support among women and men, but male support is much more severely underestimated ( 8 versus 35 pp ).

In the Netherlands, actual support for the policy among women is about $35 \%$, with perceived support on average around $62 \%$. Among men, actual support is around $29 \%$, with perceived support on average around $36 \%$. There is overestimation of support among women and men, but female support is much more severely overestimated ( 27 versus 7 pp ).

Why are misperceptions about women's support for gender-based affirmative action particularly severe in the Netherlands - very overestimated - whereas misperceptions about men's support for basic rights are particularly severe in Zimbabwe - greatly underestimated?

We can immediately see that minority overweighting alone cannot explain these patterns. If that was the case, we would expect a simple shift in perceptions away from the country average, parallel to the 45 -degree line. In the figure, this benchmark is visualized by a dashed line. The actual data is not parallel. Instead, in both cases, perceptions about

Figure 9: Gender Stereotyping


Notes: Panel a illustrates that existing gender differences in support are not accurately perceived (shift along the dashed 45 -degree line), but rather exaggerated (slope of solid gray line greater one) in Zimbabwe and the Netherlands. Orange (green) points represent actual and perceived support among women (men), as well as expectations about those very same in absence of gender stereotyping. Panel b generalizes and shows the whole sample. Rings (diamonds) show data points for basic rights (affirmative action). Data: Gallup World Poll 2020, country-level.
men are shifted downward whereas perceptions about women are shifted upwards, in both countries.

The pattern in both countries is broadly consistent with the logic of gender stereotyping. The general notion of stereotypes found in the literature is that beliefs reflect a kernel-oftruth of differences across groups in society - in our case support for policies across the two genders in the population - but those beliefs are distorted by an exaggeration of underlying differences. Correspondingly, it is true that, in both Zimbabwe and the Netherlands, women are more in favor of the policy than men are. However, perceptions of the gender difference in support are exaggerated. Support among women is weaker than people expect. Support among men is stronger than they think. The green and orange shaded areas in Figure 9 Panel a represent the space consistent with gender stereotyping, and the data points sit squarely within those areas.

How could such stereotyping arise? First, as formalized in Bordalo et al. $(2016,2019)$,
heuristics based on "representativeness" would give rise to exaggerated perceptions based on gender. Here, cognitive processing of otherwise correct information distorts beliefs in a systematic fashion. Second, broader forces in society can also give rise to the same phenomenon. Available information itself can be imperfect, for a number of reasons. Mass media or the entertainment industry may perpetuate stereotypes of women and men. For example, mass media in the Netherlands may interview or portray women as being proponents of affirmative action, and interview or portray men to represent people that are against it. Mass media in Zimbabwe may have a similar tendency to do the same when it comes to ensuring the same basic rights for women as men enjoy. ${ }^{11}$ Third, politics could play a role too. Political representation across genders or the expression of public opinions among their vocal leaders may not reflect the average position across genders in the population. If female politicians tend to be overrepresented for the position of being in favor, whereas male politicians tend to be overrepresented for the position against, beliefs will get distorted unless people are able to fully discount for the selection in the political process. Such discounting would obviously be very complex. Finally, all these forces may interact. For example, mass media and the entertainment industry may play into cognitive tendencies among people to engage in stereotyping. These broad forces, separately or jointly, could give rise to the same phenomenon of gender stereotyping that we observe in the two countries.

Beyond the two examples, how prevalent is this force around the world? Figure 9 Panel b plots the raw data for all countries and both policy issues. The patterns are very similar. Within each country, actual support tends to be greater among women than among men. This difference in actual support is inflated in people's perceptions, as follows from the line connecting the observation for men and women being steeper than 45 degrees for almost all observations. Conditional on a basic pattern of minority overweighting, perceptions about women are further distorted upward, while perceptions about men are further distorted downward. This "gender stereotype adjustment" appears ubiquitous, alongside minority overweighting. In 318 out of the 360 data points in Figure 9 Panel b ( $88.3 \%$ of the cases), the slope is both greater than 45 degrees and the population support sits in the gray shaded area representing minority overweighting.

In sum, two forces - minority overweighting and "gender stereotype adjustment" - appear

[^8]to be nearly universal. This is especially striking given the vast cultural, economic, and political heterogeneity that exists across the societies in our study, including countries from all parts of the gender equality spectrum.

### 4.3 Two Joint Forces

To see more formally how perceptions are jointly shaped by the two forces, some notation may be useful. Let $x$ be the population share in a country supporting a policy and $\hat{x}$ the average belief in the population about that share. Let $x(g)$ be the share of gender $g$ supporting the policy, and $\hat{x}(g)$ the average belief among the respondents about the share of gender $g$ in the country supporting the policy, for target group $g=\{m, f\}$. We can define $x=0.5 x(f)+0.5 x(m)$ and $\hat{x}=0.5 \hat{x}(f)+0.5 \hat{x}(m) .{ }^{12}$ The following simple formalization can now be used to illustrate the two forces of minority overweighting and gender stereotyping:

$$
\begin{gather*}
\hat{x}(f)=x(f)+\lambda(x-0.5)+\theta(x(f)-x(m))  \tag{1}\\
\hat{x}(m)=x(m)+\lambda(x-0.5)+\theta(x(m)-x(f)) \tag{2}
\end{gather*}
$$

This simple framework captures that belief formation about men and women may be driven by (1) the true support among females (males) in the country, (2) minority overweighting (if $\lambda<0$ ), and (3) gender stereotyping (if $\theta>0$ ). The benchmark under no misperceptions would imply $\lambda=0$ and $\theta=0$. However, in most countries, we detect both minority overweighting $(\lambda<0)$ and stereotyping $(\theta>0$ and $x(f)>x(m)) .{ }^{13}$

[^9]- Fact \#1: For basic rights, $\hat{x}-x<0$ everywhere
- Fact \#2: For basic rights, $\hat{x}(m)-x(m)<\hat{x}(f)-x(f)$ essentially everywhere
- Fact \#3: For affirmative action, $\hat{x}-x<0$ in low gender equality countries, on average. In high gender equality countries, $\hat{x}-x>0$, on average.
- Fact \#4: For affirmative action, $\hat{x}(m)-x(m)<\hat{x}(f)-x(f)$ essentially everywhere. In low gender equality countries, $\hat{x}(m)-x(m)<\hat{x}(f)-x(f)<0$, on average. In high gender equality countries, $(\hat{x}(m)-x(m) \approx 0<\hat{x}(f)-x(f))$, on average.


### 4.4 Interpreting the Stylized Facts

We now turn to a discussion of how this model can be used to interpret the stylized facts. The facts imply patterns of misperceptions that are highly heterogeneous and context-dependent: they vary by policy; by the levels of gender equality, and; by the gender of the target group. However, as we will show, these two forces can rationalize the observed behavior across countries and policies.

- Fact \#1: Support for basic rights in the population is universally underestimated.

Interpretation: As Figure 3 Panel a shows, a minority of the population is against the policy in all countries. Consistent with minority overweighting, perceptions are pushed below the truth everywhere.

- Fact \#2: Men's support for basic rights for women is more underestimated than women's support, essentially everywhere.

Interpretation: Across the global spectrum of gender equality, and in essentially all countries, women tend to be more in favor of the policy than men are. Consistent with stereotyping exaggerating these differences, perceptions of men are pushed further down which leads to even greater underestimation. For men, the two forces thus tend to work in the same direction and unequivocally lead to an underestimation of men's support for basic rights. For women, stereotyping and minority overweighting operate in opposite directions, but the latter force dominates and leads to people underestimating women's support for basic rights. In Figure 10 Panel a, we show how these two forces operate in the same way across the gender spectrum.

- Fact \#3: Support for affirmative action is on average underestimated in low gender equality countries and overestimated in high gender equality countries.

Interpretation: In low gender equality countries, the minority of the population tends to be against the policy. In contrast, in high gender equality countries, the minority tends to be in favor of the policy. Consistent with minority overweighting, in low gender equality countries perceptions will tend to be driven below the truth. In high
gender equality countries, the same force operates in the opposite direction. To see this, Figure 10 Panel b plots the data separately for each tercile of gender equality.

- Fact \#4: Men's support for affirmative action for women is more underestimated than women's support in essentially all countries. In low gender equality countries, both men's and women's support are on average underestimated, while in high gender equality countries women's support is overestimated and men's support is not misperceived.

Interpretation: As Figure 3 Panel b shows, in essentially all countries women tend to be more in favor of the policy than men are. Under gender stereotyping, these differences are exaggerated, pushing perceptions of men downward relative to perceptions of women everywhere. However, how minority overweighting and stereotyping jointly distort perceptions depends on the level of support in the population. In low gender equality countries, such as Zimbabwe, both mechanisms drive perceptions of men downward, whereas for perceptions of women they operate in opposite directions. By contrast, in high gender equality countries, such as the Netherlands, the two forces operate in opposite directions for men, and they appear to cancel each other out in most countries. ${ }^{14}$ For perceptions about women, the two mechanisms reinforce each other, pushing perceptions upward. As a result, people tend to overestimate women's support for affirmative action in these countries.

In sum, the two forces not only appear ubiquitous in the data, but they seem to also go a long way in explaining the highly heterogeneous patterns in misperceptions: at different levels of gender equality; for different policies; for the overall population, as well as differentially for perceptions of men and of women.

[^10]Figure 10: Minority Overweighting and Gender Stereotyping

(a) Basic rights

Notes: The figure replicates Panel b of Figure 9 but shows the data separately for each GEI tercile. Panel a and Panel b focus on basic rights and affirmative action, respectively. Data: Gallup World Poll 2020, country-level.

## 5 Discussion and Concluding Remarks

Culture and social norms shape women's economic outcomes around the world (Fernández, 2007; Alesina, Giuliano and Nunn, 2013). For instance, in the case of female labor force participation, it is now well understood that these social considerations are a key driver of whether women participate in the labor market or not (Fernández and Fogli, 2009; Field et al., 2021). Besides the importance of one's own political position, the perception of others' positions also matters. For example, Bursztyn, González and Yanagizawa-Drott (2020) documented that perceptions of peers' opinions toward female employment outside the home influence behavior over and above own opinions. In cases when these perceived opinions are inconsistent with the actual views of society, a simple information intervention narrowed the gap between perceived and actual opinions, and shifted behavior. This contributed to labor supply behavior more closely aligning with equilibrium opinions.

Our study complements the existing literature on the relevance of gender norms and their perceptions. We provide unified, global evidence for gender norms by measuring support for two gender-related policies as well as the perception of said support in each country and among each gender. The relevance of these national-level misperceptions is corroborated by causal evidence that links them to misperceptions at the local level.

Our unique data allows us to study perceptions about basic rights for women, in particular, whether women should be free to work outside the home. Virtually in every country, we find an underestimation of support for basic rights. This suggests that restricting female employment, which is perceived to be a popular opinion in many countries, does not correspond to true opinions. In this case, aligning perceived and actual views is a promising policy intervention (Bursztyn and Yang, 2022): It may raise female labor force participation (in particular, outside the home) by shifting perceived social norms in a way that is actually consistent with the underlying opinions of a society.

Misperceptions about our second gender norms dimension of interest, namely support for gender-based affirmative action, have more nuanced policy implications. In particular, our findings indicate that, in more developed and gender-equal countries, the policy support by the potential beneficiaries of such policies may be the most misperceived. The relatively low support for affirmative action among women in these countries may occur for several reasons that are important for policy suggestions. For example, in what Coate and Loury (1993) call
patronizing equilibria, affirmative action may exacerbate stereotypes by discouraging minorities to undertake investments. Fryer and Loury (2005) call the notion that "affirmative action always helps its beneficiaries" a myth, as mismatch may ultimately hinder minorities' chances to succeed. ${ }^{15}$ Another possibility, as suggested by Bohren, Imas and Rosenberg (2019), is that affirmative action may undermine the perceived value of the achievements of a minority group, especially if affirmative action is believed to be more widespread than it truly is. Irrespective of the reasons why support for affirmative action among women in more gender-equal countries is relatively low, an implication of our findings is that stereotyping may drive decision-makers to propose relatively unpopular policies, rather than seeking solutions that are favored by the potential beneficiaries. ${ }^{16}$

Finally, the evidence on actual support for policies addressing gender imbalances in the labor market is interesting on its own. Gender imbalances are widespread, especially in leadership positions, and a vigorous policy debate is underway to try to address them. These policy proposals are met with different levels of support. Our paper neither speaks to what drives this support nor does it address what would be an efficient policy in each country or which equity-efficiency trade-offs may be involved. Nonetheless, Ashraf et al. (2022) provide recent evidence of labor misallocation by gender, showing that countries with lower levels of female labor force participation could substantially benefit from expanding women's access to the labor market. ${ }^{17}$ In our data, the support for affirmative action in the

[^11]labor market is the strongest in less gender-equal countries. Moreover, not only is support for this policy high among women in these countries, but a large majority of men would be in favor of it. It may be that the widespread support is driven by a realization that structural barriers prevent efficient allocations in the labor market and that counteracting policies are necessary. ${ }^{18}$ This interpretation of the data, while speculative, suggests that the vast majority of men and women have not only realized the societal benefits to both genders of affirmative action but are also in actual agreement on the issue. Yet, perceived notions of support are distorted. People perceive there to be a conflict between genders, assuming most men to be against and most women to be in favor, when in fact such conflict is largely absent in the true norms data.

To summarize, using newly collected data with representative samples from 60 countries, we find stark heterogeneity in how gender norms are perceived within and across countries. This heterogeneity also varies by policy issue. Still, these global patterns can be reconciled and matched by two simple forces we present. Combining our novel stylized facts with existing studies of this topic suggests there may be room for interventions that align actual and perceived norms and thereby more closely align behavior with equilibrium views.

[^12]
## References

Aboim, Sofia. 2010. "Gender Cultures and the Division of Labour in Contemporary Europe: A Cross-National Perspective." The Sociological Review, 58(2): 171-196.

Ahern, Kenneth R., and Amy K. Dittmar. 2012. "The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation." The Quarterly Journal of Economics, 127(1): 137-197.

Alesina, Alberto, Paola Giuliano, and Nathan Nunn. 2013. "On the Origins of Gender Roles: Women and the Plough." Quarterly Journal of Economics, 128(2): 469-530.

Arcidiacono, Peter, and Michael Lovenheim. 2016. "Affirmative action and the qualityfit trade-off." Journal of Economic Literature, 54(1): 3-51.

Asch, Solomon E. 1951. "Effects of group pressure upon the modification and distortion of judgments." In Groups, Leadership and Men: Research in Human Relations. 177-190. Oxford, England:Carnegie Press.

Ash, Elliott, Ruben Durante, Maria Grebenshchikova, and Carlo Schwarz. 2022. "Visual Representation and Stereotypes in News Media." CESifo Working Paper 9686.

Ashraf, Nava, Natalie Bau, Nathan Nunn, and Alessandra Voena. 2020. "Bride price and female education." Journal of Political Economy, 128(2): 591-641.

Ashraf, Nava, Oriana Bandiera, Virginia Minni, and Víctor Quintas-Martínez. 2022. "Gender Roles and the Misallocation of Labour Across Countries." Unpublished.

Becker, Anke. 2021. "On the Economic Origins of Restricting Women's Promiscuity." The Review of Economic Studies.

Belgiu, Mariana. 2015. "UIA World Countries Boundaries." UNIGIS International Association.

Bénabou, Roland, and Jean Tirole. 2011. "Laws and Norms." NBER Working Paper No. 17579.

Bertrand, Marianne. 2018. "Coase lecture-the glass ceiling." Economica, 85(338): 205231.

Bertrand, Marianne, Sandra E Black, Sissel Jensen, and Adriana Lleras-Muney. 2018. "Breaking the Glass Ceiling? The Effect of Board Quotas on Female Labour Market Outcomes in Norway." The Review of Economic Studies, 86(1): 191-239.

Besley, Timothy, Olle Folke, Torsten Persson, and Johanna Rickne. 2017. "Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden." American Economic Review, 107(8): 2204-2242.

Bicchieri, Cristina. 2005. The Grammar of Society: The Nature and Dynamics of Social Norms. Cambridge University Press.

Bohren, J Aislinn, Alex Imas, and Michael Rosenberg. 2019. "The dynamics of discrimination: Theory and evidence." American Economic Review, 109(10): 3395-3436.

Bordalo, Pedro, Katherine Baldiga Coffman, Nicola Gennaioli, and Andrei Shleifer. 2019. "Beliefs About Gender." American Economic Review, 109(3): 739-73.

Bordalo, Pedro, Katherine Coffman, Nicola Gennaioli, and Andrei Shleifer. 2016. "Stereotypes." The Quarterly Journal of Economics, 131(4): 1753-1794.

Brooks, Clem, and Catherine Bolzendahl. 2004. "The Transformation of US Gender Role Attitudes: Cohort Replacement, Social-Structural Change, and Ideological Learning." Social Science Research, 33(1): 106-133.

Bursztyn, Leonardo, Alessandra L González, and David Yanagizawa-Drott. 2020. "Misperceived social norms: Women working outside the home in Saudi Arabia." American Economic Review, 110(10): 2997-3029.

Bursztyn, Leonardo, and David Y Yang. 2022. "Misperceptions about others." Annual Review of Economics, 14: 425-452.

Bursztyn, Leonardo, and Robert Jensen. 2017. "Social Image and Economic Behavior in the Field: Identifying, Understanding, and Shaping Social Pressure." Annual Review of Economics, 9(1): 131-153.

Charles, Kerwin Kofi, Jonathan Guryan, and Jessica Pan. 2022. "The effects of sexism on American women: The role of norms vs. discrimination." Journal of Human Resources, 0920-11209R3.

Chattopadhyay, Raghabendra, and Esther Duflo. 2004. "Women as Policy Makers: Evidence from a Randomized Policy Experiment in India." Econometrica, 72(5): 14091443.

Chung, Adrienne, and Rajiv N. Rimal. 2016. "Social Norms: A Review." Review of Communication Research, 4: 1-28.

Cialdini, Robert B., Raymond R. Reno, and Carl A. Kallgren. 1990. "A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places." Journal of Personality and Social Psychology, 58(6): 1015-1026.

Coate, Stephen, and Glenn C Loury. 1993. "Will affirmative-action policies eliminate negative stereotypes?" The American Economic Review, 1220-1240.

Conlon, John J, and Dev Patel. 2022. "What jobs come to mind? stereotypes about fields of study." Working Paper.

Cortés, Patricia, Gizem Koşar, Jessica Pan, and Basit Zafar. 2022. "Should Mothers Work? How Perceptions of the Social Norm Affect Individual Attitudes Toward Work in the US." National Bureau of Economic Research.

Cotter, David, Joan M Hermsen, and Reeve Vanneman. 2011. "The End of the Gender Revolution? Gender Role attitudes from 1977 to 2008." American Journal of Sociology, 117(1): 259-89.

Deutsch, Morton, and Harold B. Gerard. 1955. "A study of normative and informational social influences upon individual judgment." The Journal of Abnormal and Social Psychology, 51(3): 629-636.

Dhar, Diva, Tarun Jain, and Seema Jayachandran. 2022. "Reshaping adolescents' gender attitudes: Evidence from a school-based experiment in India." American Economic Review, 112(3): 899-927.

Eckbo, B. Espen, Knut M. Nygaard, and Karin S. Thorburn. 2016. "How Costly Is Forced Gender-Balancing of Corporate Boards?" European Corporate Governance Institute (ECGI). Finance Working Paper No. 463/2016.

Enke, Benjamin, and Thomas Graeber. 2021. "Cognitive Uncertainty in Intertemporal Choice." National Bureau of Economic Research Working Paper 29577. (R\&R at The Quarterly Journal of Economics.).

Exley, Christine L, Oliver P Hauser, Molly Moore, and John-Henry Pezzuto. 2022. "Beliefs about Gender Differences in Social Preferences." Harvard Business School Working Paper, No. 22-079.

Fernández, Raquel. 2007. "Women, work, and culture." Journal of the European Economic Association, 5(2-3): 305-332.

Fernández, Raquel. 2013. "Cultural Change as Learning: The Evolution of Female Labor Force Participation Over a Century." American Economic Review, 103(1): 472-500.

Fernández, Raquel, and Alessandra Fogli. 2009. "Culture: An Empirical Investigation of Beliefs, Work, and Fertility." American Economic Journal: Macroeconomics, 1(1): 14677.

Field, Erica, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer Moore. 2021. "On her own account: How Strengthening Women's Financial Control Impacts Labor Supply and Gender Norms." American Economic Review, 111(7): 234275.

Fortin, Nicole M. 2015. "Gender Role Attitudes and Women's Labor Market Participation: Opting-out, Aids, and the Persistent Appeal of Housewifery." Annals of Economics and Statistics/Annales d'Économie et de Statistique, 117/118: 379-401.

Fryer, Roland G, and Glenn C Loury. 2005. "Affirmative action and its mythology." Journal of Economic Perspectives, 19(3): 147-162.

Gabaix, Xavier. 2019. "Chapter 4 - Behavioral inattention." In Handbook of Behavioral Economics: Applications and Foundations 1. Vol. 2, , ed. B. Douglas Bernheim, Stefano DellaVigna and David Laibson, 261-343. North-Holland.

Gelfand, Michele J., Jana L. Raver, Lisa Nishii, Lisa M. Leslie, Janetta Lun, Beng Chong Lim, Lili Duan, Assaf Almaliach, Soon Ang, Jakobina Arnadottir, Zeynep Aycan, Klaus Boehnke, Pawel Boski, Rosa Cabecinhas, Darius Chan, Jagdeep Chhokar, Alessia D'Amato, Montse Ferrer, Iris C. Fischlmayr, Ronald Fischer, Marta Fülöp, James Georgas, Emiko S. Kashima, Yoshishima Kashima, Kibum Kim, Alain Lempereur, Patricia Marquez, Rozhan Othman, Bert Overlaet, Penny Panagiotopoulou, Karl Peltzer, Lorena R. PerezFlorizno, Larisa Ponomarenko, Anu Realo, Vidar Schei, Manfred Schmitt, Peter B. Smith, Nazar Soomro, Erna Szabo, Nalinee Taveesin, Midori Toyama, Evert Van de Vliert, Naharika Vohra, Colleen Ward, and Susumu Yamaguchi. 2011. "Differences Between Tight and Loose Cultures: A 33-Nation Study." Science, 332(6033): 1100-1104.

Giuliano, Paola. 2020. "Gender and culture." Oxford Review of Economic Policy, 36(4): 944-961.

Iaria, Alessandro, Carlo Schwarz, and Fabian Waldinger. 2022. "Gender Gaps in Academia: Global Evidence Over the Twentieth Century." Available at SSRN 4150221.

Jayachandran, Seema. 2015. "The roots of gender inequality in developing countries." Annual Review of Economics, 7(1): 63-88.

Johansen, Marius Apland, and Marius Javier Sandnes. 2008. "Gender Equality in the Boardroom: The Norwegian Case of Rosa Parks?" The Norwegian School of Economics. Master Thesis.

Konrad, Alison M, and Linley Hartmann. 2001. "Gender differences in attitudes toward affirmative action programs in Australia: Effects of beliefs, interests, and attitudes toward women." Sex Roles, 45(5): 415-432.

Matsa, David A., and Amalia R. Miller. 2013. "A Female Style in Corporate Leadership? Evidence from Quotas." American Economic Journal: Applied Economics, 5(3): 136-169.

Nygaard, Knut. 2011. "Forced Board Changes: Evidence from Norway." The Norwegian School of Economics. Discussion Paper No. 5/2011 1793227.

Paluck, Elizabeth Levy, and Hana Shepherd. 2012. "The salience of social referents: a field experiment on collective norms and harassment behavior in a school social network." Journal of Personality and Social Psychology, 103(6): 899-915.

Parker, Christopher P, Boris B Baltes, and Neil D Christiansen. 1997. "Support for affirmative action, justice perceptions, and work attitudes: A study of gender and racial-ethnic group differences." journal of Applied Psychology, 82(3): 376.

Prentice, Deborah A., and Dale T. Miller. 1993. "Pluralistic ignorance and alcohol use on campus: Some consequences of misperceiving the social norm." Journal of Personality and Social Psychology, 64(2): 243-256.

Scott, Jacqueline, Duane F Alwin, and Michael Braun. 1996. "Generational Changes in Gender-Role Attitudes: Britain in a Cross-national Perspective." Sociology, 30(3): 471492.

Shapiro, Jesse M. 2016. "Special interests and the media: Theory and an application to climate change." Journal of Public Economics, 144: 91-108.

Steinbugler, Amy C, Julie E Press, and Janice Johnson Dias. 2006. "Gender, race, and affirmative action: Operationalizing intersectionality in survey research." Gender $\mathcal{\xi}$ Society, 20(6): 805-825.

Tankard, Margaret E., and Elizabeth Levy Paluck. 2016. "Norm perception as a vehicle for social change." Social Issues and Policy Review, 10(1): 181-211.

Treas, Judith, and Eric D Widmer. 2000. "Married Women's Employment over the Life Course: Attitudes in Cross-National Perspective." Social Forces, 78(4): 1409-1436.

UNDP. 2022. "Human Development Report 2021-22." United Nations Development Programme (UNDP).

Van Boven, Leaf. 2000. "Pluralistic ignorance and political correctness: The case of affirmative action." Political Psychology, 21(2): 267-276.

World Bank. 2021a. "GDP per capita (constant 2010 US\$)." The World Bank, Washington, DC.

World Bank. 2021b. "Total Population." The World Bank, Washington, DC.
World Bank. 2022. "Women, Business and the Law 2022." The World Bank, Washington, DC.

# "How Are Gender Norms Perceived?" 

## Online Appendix

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## Online Appendix A

Table A.1: Coverage Gallup World Poll 2020

| ARG | Argentina | GHA | Ghana | NLD | Netherlands |
| :--- | :--- | :--- | :--- | :--- | :--- |
| AUS | Australia | GRC | Greece | NOR | Norway |
| BGD | Bangladesh | HRV | Croatia | PAK | Pakistan |
| BOL | Bolivia | HUN | Hungary | PER | Peru |
| BRA | Brazil | IDN | Indonesia | PHL | Philippines |
| CAN | Canada | IND | India | POL | Poland |
| CHE | Switzerland | IRN | Iran | PRT | Portugal |
| CHL | Chile | IRQ | Iraq | RUS | Russia |
| CHN | China | ISR | Israel | SEN | Senegal |
| CMR | Cameroon | ITA | Italy | THA | Thailand |
| COL | Colombia | JOR | Jordan | TUR | Turkey |
| CZE | Czech Republic | JPN | Japan | TZA | Tanzania |
| DEU | Germany | KAZ | Kazakhstan | UGA | Uganda |
| DZA | Algeria | KEN | Kenya | UKR | Ukraine |
| ECU | Ecuador | KHM | Cambodia | USA | United States |
| EGY | Egypt | KOR | South Korea | VEN | Venezuela |
| ESP | Spain | LKA | Sri Lanka | VNM | Vietnam |
| ETH | Ethiopia | MAR | Morocco | ZAF | South Africa |
| FRA | France | MEX | Mexico | ZMB | Zambia |
| GBR | United Kingdom | NGA | Nigeria | ZWE | Zimbabwe |

Figure A.1: Gallup World Poll and the Global Spectrum of Gender Equality


Notes: Countries contained in our data are highlighted in color, while those not contained are displayed in gray. In Panel a, we use the Gender Equality Index (GEI), while we use the "Women, Business and the Law" Index (WBL-index) in Panel b. Data: Gallup World Poll 2020, country-level. Gender Equality Index based on UNDP (2022) and WBL-index on World Bank (2022).

Figure A.2: Social desirability bias


Notes: For each country the figure shows the differences in mean answers across the "truthful" and "actual" variant of the questions about perceived support for basic rights and affirmative action in the country overall. It plots the difference (truthful relative to actual variant) and $95 \%$ confidence intervals. Data: Gallup World Poll 2020, individual-level.

Figure A.3: Social Desirability Bias (Robustness)
(a) By question, pooled across gender

(b) By target gender, pooled across questions and gender of respondent Perceptions of men's support

Perceptions of women's support


(c) By gender of respondent, pooled across target gender and questions Male respondents

Female respondents


Notes: For each country the figure shows the differences in mean answers across the "truthful" and "actual" variant of the questions about perceived support for basic rights and affirmative action, conditioning on different dimensions of our data. It plots the difference (truthful relative to actual variant) and $95 \%$ confidence intervals. Data: Gallup World Poll 2020, individual-level.

Figure A.4: Stigmatization


Notes: We elicited support for affirmative action from $\mathrm{N}=1006$ subjects from the US by randomly assigning them to either direct elicitation $(\mathrm{N}=507)$ or elicitation via a randomized response technique ( $\mathrm{N}=499$ ). In addition to estimated levels of support, we plot $95 \%$ confidence intervals. We cannot reject the hypothesis that both elicitation methods reveal to the same level of support and interpret this as the topic not being stigmatized. Data: Experimental data.

Figure A.5: Misperceptions about the Country Correlate with those about Local Groups


Notes: The graph plots misperceptions about support (pp) for affirmative action among men (green) and women (orange) in Texas against those about support in the US. We bin the data into quantiles containing 20 observations each. Using the unbinned data, we find Pearson's correlation coefficient to be equal to 0.78 (men) and 0.83 (women). Data: Experimental data, control group.

Figure A.6: Effect of Information about National Support on Perceptions of Local Support


Notes: The bars indicate beliefs about support for affirmative action (\%) among women (orange) and men (green). The orange (green) horizontal lines indicate actual support among women (men) in the US, $38 \%$ and $45 \%$, respectively. Error bars indicate $95 \%$ confidence intervals. Details on the effect information about the national level of support has on beliefs about local support can be found in Table A.2. Data: Experimental data.

Figure A.7: Misperceptions of Males and Females by Gender of Respondent
(a) Gender-pooled misperceptions about policy support Basic rights

Affirmative action

(b) Misperceptions about women's policy support

Basic rights
Affirmative action


(c) Misperceptions about men's policy support

Basic rights
Affirmative action



Notes: For each country, the figure shows differences in how men and women misperceive support in the country overall (Panel a), support among women (Panel b), and support among men (Panel c). It plots the difference (women's relative to men's misperceptions) and $95 \%$ confidence intervals. Data: Gallup World Poll 2020, individual-level.

Figure A.8: Support by WBL Terciles and Gender


Notes: The graph shows average levels of support (\%) for basic rights (Panel a) and affirmative action (Panel b) among men (green) and women (orange) conditional on how gender-equal a given country is on a global spectrum, as measured by the "Women, Business and the Law"-index (WBL-index). That is, it shows average levels of support in each tercile of the WBL-index. The WBL-index increases with the equality between women and men. Data: Gallup World Poll 2020, individual-level. Gender Equality terciles based on WBL-index (World Bank, 2022).

Figure A.9: Misperceptions by WBL Terciles and Gender
(a) Basic rights
(b) Affirmative action



Notes: The graph shows average misperceptions about support (pp) for basic rights (Panel a) and affirmative action (Panel b) among men (green) and women (orange) conditional on how gender-equal a given country is on a global spectrum, as measured by the "Women, Business and the Law"-index (WBL-index). That is, it shows average misperceptions in each tercile of the WBL-index. The WBL-index increases with the equality between women and men. Misperceptions are calculated as [actual support (among women/among men)] - [perceived support (among women/among men)]. Data: Gallup World Poll 2020, individual-level. Gender Equality terciles based on WBL-index (World Bank, 2022).

Figure A.10: Robust patterns when dropping perceptions of exactly $50 \%$ support


Notes: We replicate Panel b of both Figure 8 and Figure 9. Here, however, we drop all observations where individuals report believing exactly $50 \%$ of men or women support the respective policy issue they were asked about. Panel a illustrates deviations from the benchmark under no misperceptions (45-degree line) in the direction of the minority position. Panel b shows that existing gender differences in support are not accurately perceived (shift along the 45-degree line), but rather exaggerated (slope greater one) in Zimbabwe and the Netherlands. Orange (green) points represent actual and perceived support among women (men), as well as expectations about those very same in absence of gender stereotyping. Rings (diamonds) show data points for basic rights (affirmative action). Data: Gallup World Poll 2020, country-level.

Figure A.11: Robust patterns when dropping perceptions of exactly $0 \%, 50 \%, 100 \%$ support


Notes: We replicate Panel b of both Figure 8 and Figure 9. Here, however, we drop all observations where individuals report believing exactly $0 \%, 50 \%$, or $100 \%$ of men or women support the respective policy issue they were asked about. Panel a illustrates deviations from the benchmark under no misperceptions (45-degree line) in the direction of the minority position. Panel b shows that existing gender differences in support are not accurately perceived (shift along the 45-degree line), but rather exaggerated (slope greater one) in Zimbabwe and the Netherlands. Orange (green) points represent actual and perceived support among women (men), as well as expectations about those very same in absence of gender stereotyping. Rings (diamonds) show data points for basic rights (affirmative action). Data: Gallup World Poll 2020, country-level.

Table A.2: Effect of Information about National Support on Perceptions of Local Support

|  | Texas |  |  | Co-workers |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $(1)$ | $(2)$ |  | $(3)$ | $(4)$ |
|  | Male | Female |  | Male | Female |
| Info treatment | 7.927 | -8.403 |  | 7.871 | -5.970 |
|  | $(1.314)$ | $(1.814)$ |  | $1.772)$ | $(2.063)$ |
| Constant | 19.49 | 52.70 |  | 26.52 | 59.83 |
|  | $(1.049)$ | $(1.545)$ |  | $(1.375)$ | $(1.690)$ |
| $N$ | 499 | 499 |  | 499 | 500 |

Notes: Robust standard errors in parentheses. We regress perceptions of support (\%) on a dummy variable indicating whether subjects received information about the levels of support for affirmative action in the US ( $38 \%$ among men and $45 \%$ among women). Columns (1) and (2) focus on perceptions of support among Texans, and columns (3) and (4) focus on perceptions about support among co-workers.

Table A.3: Africa, Basic Rights

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| CMR | GEI Tc. 1 | 87.6 | 83.5 | 91.0 | 63.1 | 47.6 | 77.0 | -35.9 | -14.0 |
| ETH | GEI Tc. 1 | 91.4 | 88.1 | 95.1 | 68.3 | 55.7 | 81.1 | -32.4 | -14.0 |
| GHA | GEI Tc. 1 | 93.6 | 89.1 | 98.6 | 70.7 | 63.1 | 79.5 | -26.0 | -19.0 |
| KEN | GEI Tc. 1 | 86.8 | 82.9 | 89.9 | 57.1 | 42.0 | 71.2 | -40.9 | -18.8 |
| NGA | GEI Tc. 1 | 88.5 | 87.7 | 89.3 | 61.7 | 52.3 | 72.3 | -35.4 | -17.0 |
| SEN | GEI Tc. 1 | 91.3 | 85.2 | 96.1 | 65.6 | 49.0 | 80.4 | -36.2 | -15.7 |
| TZA | GEI Tc. 1 | 93.0 | 86.9 | 98.2 | 60.4 | 44.7 | 74.4 | -42.2 | -23.9 |
| UGA | GEI Tc. 1 | 82.0 | 75.4 | 89.8 | 58.2 | 42.2 | 75.9 | -33.2 | -13.8 |
| ZMB | GEI Tc. 1 | 91.4 | 89.1 | 93.7 | 65.5 | 53.0 | 78.1 | -36.1 | -15.6 |
| ZWE | GEI Tc. 1 | 79.8 | 72.4 | 86.2 | 58.3 | 37.2 | 78.1 | -35.1 | -8.0 |
| DZA | GEI Tc. 2 | 68.0 | 53.8 | 84.8 | 57.6 | 38.3 | 79.5 | -15.5 | -5.4 |
| MAR | GEI Tc. 2 | 85.0 | 74.4 | 94.4 | 69.0 | 51.7 | 85.8 | -22.7 | -8.6 |
| ZAF | GEI Tc. 2 | 89.7 | 86.1 | 92.7 | 64.5 | 49.8 | 78.5 | -36.3 | -14.2 |

Table A.4: Africa, Affirmative Action

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| CMR | GEI Tc. 1 | 74.2 | 62.2 | 85.9 | 59.4 | 39.2 | 77.0 | -23.0 | -8.9 |
| ETH | GEI Tc. 1 | 86.5 | 81.4 | 91.9 | 65.2 | 52.0 | 78.4 | -29.4 | -13.5 |
| GHA | GEI Tc. 1 | 81.7 | 74.3 | 89.8 | 61.4 | 47.8 | 76.2 | -26.5 | -13.7 |
| KEN | GEI Tc. 1 | 85.0 | 78.3 | 91.7 | 60.3 | 45.7 | 73.8 | -32.6 | -17.9 |
| NGA | GEI Tc. 1 | 79.3 | 73.3 | 87.0 | 56.7 | 41.0 | 74.3 | -32.3 | -12.8 |
| SEN | GEI Tc. 1 | 85.5 | 75.7 | 94.9 | 67.3 | 49.8 | 83.0 | -25.8 | -11.9 |
| TZA | GEI Tc. 1 | 89.1 | 82.5 | 95.0 | 62.1 | 45.0 | 77.3 | -37.5 | -17.7 |
| UGA | GEI Tc. 1 | 80.8 | 80.0 | 81.5 | 57.4 | 42.9 | 71.2 | -37.1 | -10.3 |
| ZMB | GEI Tc. 1 | 79.3 | 70.7 | 88.3 | 62.0 | 46.4 | 78.2 | -24.3 | -10.1 |
| ZWE | GEI Tc. 1 | 78.2 | 69.4 | 87.3 | 58.0 | 32.6 | 82.0 | -36.8 | -5.3 |
| DZA | GEI Tc. 2 | 30.5 | 14.2 | 47.6 | 39.9 | 15.7 | 66.8 | 1.5 | 19.3 |
| MAR | GEI Tc. 2 | 66.5 | 56.3 | 77.8 | 63.2 | 39.8 | 86.4 | -16.5 | 8.5 |
| ZAF | GEI Tc. 2 | 93.1 | 91.8 | 94.5 | 65.8 | 47.2 | 83.5 | -44.6 | -11.0 |

Table A.5: Americas, Basic Rights

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| VEN | GEI Tc. 1 | 97.2 | 96.2 | 98.0 | 75.1 | 62.3 | 86.9 | -33.9 | -11.1 |
| ARG | GEI Tc. 2 | 98.6 | 99.0 | 98.2 | 74.4 | 64.6 | 84.0 | -34.4 | -14.2 |
| BOL | GEI Tc. 2 | 96.1 | 95.4 | 96.8 | 64.5 | 52.0 | 77.6 | -43.4 | -19.2 |
| BRA | GEI Tc. 2 | 98.3 | 96.6 | 100.0 | 69.9 | 50.4 | 88.0 | -46.3 | -12.0 |
| CHL | GEI Tc. 2 | 97.7 | 97.7 | 97.7 | 73.6 | 59.3 | 86.8 | -38.4 | -10.9 |
| COL | GEI Tc. 2 | 95.8 | 93.1 | 98.1 | 69.0 | 52.8 | 83.6 | -40.3 | -14.4 |
| ECU | GEI Tc. 2 | 94.9 | 93.8 | 96.0 | 65.8 | 51.7 | 79.6 | -42.1 | -16.4 |
| MEX | GEI Tc. 2 | 97.0 | 96.7 | 97.4 | 68.5 | 52.3 | 82.4 | -44.5 | -14.9 |
| PER | GEI Tc. 2 | 95.9 | 93.3 | 98.4 | 64.3 | 51.6 | 76.9 | -41.7 | -21.5 |
| CAN | GEI Tc. 3 | 99.1 | 99.5 | 98.7 | 86.1 | 79.9 | 92.2 | -19.6 | -6.5 |
| USA | GEI Tc. 3 | 100.0 | 100.0 | 100.0 | 84.0 | 75.5 | 91.9 | -24.5 | -8.1 |

Table A.6: Americas, Affirmative Action

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| VEN | GEI Tc. 1 | 87.8 | 80.9 | 95.0 | 65.9 | 51.2 | 79.4 | -29.7 | -15.6 |
| ARG | GEI Tc. 2 | 75.5 | 73.5 | 77.0 | 60.4 | 43.0 | 75.8 | -30.6 | -1.2 |
| BOL | GEI Tc. 2 | 90.2 | 87.4 | 93.2 | 58.7 | 45.6 | 72.8 | -41.9 | -20.5 |
| BRA | GEI Tc. 2 | 81.2 | 71.7 | 89.7 | 59.1 | 35.4 | 81.5 | -36.3 | -8.2 |
| CHL | GEI Tc. 2 | 76.8 | 68.3 | 85.1 | 63.6 | 43.8 | 81.6 | -24.5 | -3.5 |
| COL | GEI Tc. 2 | 93.0 | 91.4 | 94.5 | 66.5 | 49.0 | 82.5 | -42.5 | -11.9 |
| ECU | GEI Tc. 2 | 88.7 | 83.0 | 93.7 | 62.5 | 47.3 | 75.5 | -35.7 | -18.2 |
| MEX | GEI Tc. 2 | 81.7 | 80.7 | 82.4 | 62.1 | 46.3 | 76.5 | -34.4 | -5.9 |
| PER | GEI Tc. 2 | 84.7 | 82.1 | 86.9 | 58.3 | 41.8 | 74.1 | -40.3 | -12.8 |
| CAN | GEI Tc. 3 | 43.7 | 41.2 | 45.7 | 52.4 | 36.6 | 68.1 | -4.6 | 22.4 |
| USA | GEI Tc. 3 | 43.5 | 38.1 | 48.7 | 51.3 | 34.1 | 67.6 | -3.9 | 18.9 |

Table A.7: Asia, Basic Rights

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| BGD | GEI Tc. 1 | 80.5 | 69.8 | 91.1 | 67.3 | 54.7 | 80.5 | -15.1 | -10.6 |
| IDN | GEI Tc. 1 | 65.9 | 59.4 | 72.7 | 58.7 | 53.4 | 64.8 | -6.0 | -7.9 |
| IND | GEI Tc. 1 | 81.2 | 75.3 | 87.3 | 61.2 | 55.3 | 67.1 | -20.0 | -20.1 |
| KHM | GEI Tc. 1 | 93.5 | 93.1 | 94.0 | 71.8 | 65.5 | 79.1 | -27.5 | -14.9 |
| PAK | GEI Tc. 1 | 61.1 | 54.4 | 68.2 | 52.5 | 44.8 | 60.3 | -9.5 | -7.9 |
| CHN | GEI Tc. 2 | 96.6 | 95.1 | 98.3 | 75.5 | 70.5 | 80.0 | -24.7 | -18.3 |
| LKA | GEI Tc. 2 | 89.8 | 86.6 | 92.6 | 68.3 | 56.3 | 78.4 | -30.3 | -14.2 |
| PHL | GEI Tc. 2 | 94.2 | 89.9 | 98.3 | 74.5 | 69.4 | 79.3 | -20.4 | -19.1 |
| THA | GEI Tc. 2 | 98.5 | 97.2 | 99.7 | 76.1 | 67.3 | 83.3 | -29.9 | -16.4 |
| VNM | GEI Tc. 2 | 97.2 | 95.7 | 98.9 | 76.8 | 65.9 | 86.3 | -29.8 | -12.6 |
| JPN | GEI Tc. 3 | 97.8 | 97.8 | 97.7 | 74.0 | 65.3 | 82.5 | -32.5 | -15.2 |
| KAZ | GEI Tc. 3 | 88.1 | 83.0 | 92.3 | 65.5 | 56.6 | 74.5 | -26.4 | -17.7 |
| KOR | GEI Tc. 3 | 99.2 | 98.4 | 100.0 | 81.8 | 80.8 | 82.8 | -17.6 | -17.2 |

Table A.8: Asia, Affirmative Action

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| BGD | GEI Tc. 1 | 72.4 | 62.1 | 84.9 | 66.1 | 51.3 | 83.2 | -10.7 | -1.7 |
| IDN | GEI Tc. 1 | 75.2 | 69.2 | 81.3 | 54.7 | 49.2 | 60.2 | -20.0 | -21.1 |
| IND | GEI Tc. 1 | 93.5 | 91.1 | 96.0 | 63.2 | 58.2 | 68.5 | -32.9 | -27.5 |
| KHM | GEI Tc. 1 | 93.1 | 92.9 | 93.3 | 64.2 | 57.1 | 71.3 | -35.9 | -22.0 |
| PAK | GEI Tc. 1 | 78.5 | 63.4 | 94.3 | 54.5 | 45.4 | 64.3 | -18.0 | -30.0 |
| CHN | GEI Tc. 2 | 52.8 | 44.8 | 62.0 | 55.6 | 45.2 | 67.7 | 0.4 | 5.7 |
| LKA | GEI Tc. 2 | 82.6 | 74.7 | 91.0 | 61.8 | 50.7 | 73.0 | -24.0 | -17.9 |
| PHL | GEI Tc. 2 | 87.4 | 89.0 | 85.8 | 67.8 | 62.8 | 72.5 | -26.1 | -13.3 |
| THA | GEI Tc. 2 | 90.2 | 87.0 | 92.6 | 61.7 | 47.6 | 73.7 | -39.4 | -18.9 |
| VNM | GEI Tc. 2 | 84.9 | 82.9 | 87.0 | 63.3 | 56.1 | 71.9 | -26.9 | -15.1 |
| JPN | GEI Tc. 3 | 63.0 | 53.0 | 72.9 | 45.3 | 35.7 | 55.1 | -17.2 | -17.7 |
| KAZ | GEI Tc. 3 | 56.5 | 46.9 | 66.9 | 54.6 | 39.2 | 69.3 | -7.7 | 2.4 |
| KOR | GEI Tc. 3 | 29.9 | 23.9 | 35.6 | 43.0 | 39.9 | 45.8 | 16.0 | 10.3 |

Table A.9: Europe, Basic Rights

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| HUN | GEI Tc. 2 | 98.3 | 98.6 | 98.1 | 76.2 | 65.8 | 85.5 | -32.7 | -12.6 |
| RUS | GEI Tc. 2 | 95.0 | 93.1 | 96.6 | 72.9 | 67.5 | 77.2 | -25.5 | -19.5 |
| UKR | GEI Tc. 2 | 95.0 | 92.7 | 97.3 | 72.0 | 65.1 | 77.4 | -27.6 | -19.9 |
| CHE | GEI Tc. 3 | 95.0 | 94.7 | 95.2 | 75.3 | 67.7 | 82.0 | -27.0 | -13.2 |
| CZE | GEI Tc. 3 | 97.3 | 98.6 | 95.8 | 72.4 | 63.3 | 81.0 | -35.3 | -14.8 |
| DEU | GEI Tc. 3 | 94.6 | 98.4 | 91.0 | 77.9 | 69.7 | 85.2 | -28.7 | -5.8 |
| ESP | GEI Tc. 3 | 95.0 | 95.9 | 94.1 | 77.8 | 69.8 | 86.0 | -26.1 | -8.1 |
| FRA | GEI Tc. 3 | 98.7 | 98.2 | 99.2 | 77.2 | 69.7 | 84.9 | -28.5 | -14.3 |
| GBR | GEI Tc. 3 | 95.9 | 94.8 | 96.9 | 84.5 | 78.0 | 90.9 | -16.8 | -5.9 |
| GRC | GEI Tc. 3 | 99.0 | 98.1 | 100.0 | 78.6 | 69.1 | 88.3 | -29.0 | -11.7 |
| HRV | GEI Tc. 3 | 99.7 | 100.0 | 99.5 | 71.5 | 61.0 | 80.7 | -39.0 | -18.8 |
| ITA | GEI Tc. 3 | 98.5 | 98.4 | 98.6 | 80.0 | 68.7 | 90.0 | -29.7 | -8.7 |
| NLD | GEI Tc. 3 | 99.8 | 100.0 | 99.6 | 82.5 | 76.8 | 88.2 | -23.2 | -11.3 |
| NOR | GEI Tc. 3 | 99.5 | 99.0 | 99.9 | 88.3 | 83.0 | 93.5 | -16.0 | -6.4 |
| POL | GEI Tc. 3 | 99.1 | 99.5 | 98.8 | 75.5 | 66.0 | 84.8 | -33.4 | -14.0 |
| PRT | GEI Tc. 3 | 98.9 | 98.5 | 99.2 | 80.2 | 67.5 | 91.7 | -31.0 | -7.4 |

Table A.10: Europe, Affirmative Action

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| HUN | GEI Tc. 2 | 30.7 | 22.3 | 38.0 | 47.9 | 29.9 | 65.1 | 7.7 | 27.1 |
| RUS | GEI Tc. 2 | 40.0 | 23.0 | 53.2 | 50.0 | 33.6 | 63.6 | 10.5 | 10.4 |
| UKR | GEI Tc. 2 | 63.9 | 57.0 | 69.4 | 52.4 | 35.3 | 67.7 | -21.7 | -1.6 |
| CHE | GEI Tc. 3 | 48.6 | 49.3 | 47.9 | 59.6 | 49.8 | 68.3 | 0.5 | 20.4 |
| CZE | GEI Tc. 3 | 28.4 | 23.8 | 32.1 | 46.5 | 33.0 | 59.1 | 9.2 | 27.0 |
| DEU | GEI Tc. 3 | 41.4 | 38.7 | 43.7 | 54.6 | 43.6 | 64.2 | 4.9 | 20.5 |
| ESP | GEI Tc. 3 | 50.8 | 47.7 | 54.2 | 61.3 | 50.3 | 72.5 | 2.5 | 18.3 |
| FRA | GEI Tc. 3 | 77.5 | 77.3 | 77.6 | 61.1 | 51.3 | 70.9 | -26.0 | -6.7 |
| GBR | GEI Tc. 3 | 43.6 | 38.3 | 48.8 | 58.8 | 45.3 | 71.8 | 7.0 | 23.0 |
| GRC | GEI Tc. 3 | 53.9 | 46.5 | 61.7 | 54.1 | 34.4 | 74.4 | -12.0 | 12.6 |
| HRV | GEI Tc. 3 | 58.3 | 49.5 | 66.3 | 54.3 | 35.7 | 71.3 | -13.8 | 4.9 |
| ITA | GEI Tc. 3 | 50.4 | 45.2 | 55.4 | 58.0 | 38.5 | 75.1 | -6.7 | 19.7 |
| NLD | GEI Tc. 3 | 32.3 | 29.3 | 35.5 | 49.1 | 36.1 | 62.0 | 6.8 | 26.5 |
| NOR | GEI Tc. 3 | 49.7 | 37.9 | 62.9 | 55.0 | 39.8 | 70.1 | 1.9 | 7.2 |
| POL | GEI Tc. 3 | 31.7 | 27.3 | 35.3 | 51.7 | 34.5 | 68.5 | 7.2 | 33.2 |
| PRT | GEI Tc. 3 | 73.2 | 67.4 | 78.9 | 59.6 | 40.0 | 77.1 | -27.3 | -1.8 |

Table A.11: Middle East, Basic Rights

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| EGY | GEI Tc. 1 | 70.9 | 56.5 | 86.7 | 63.5 | 50.6 | 78.9 | -5.9 | -7.8 |
| IRN | GEI Tc. 1 | 82.6 | 78.8 | 86.5 | 63.7 | 49.6 | 77.7 | -29.2 | -8.8 |
| IRQ | GEI Tc. 1 | 71.7 | 61.7 | 84.5 | 58.2 | 43.1 | 75.4 | -18.5 | -9.1 |
| JOR | GEI Tc. 1 | 72.0 | 57.5 | 88.8 | 59.1 | 41.4 | 79.5 | -16.1 | -9.3 |
| TUR | GEI Tc. 2 | 88.5 | 83.0 | 94.5 | 65.3 | 50.5 | 79.7 | -32.5 | -14.8 |
| ISR | GEI Tc. 3 | 90.6 | 87.2 | 94.0 | 80.9 | 73.1 | 88.0 | -14.1 | -5.9 |

Table A.12: Middle East, Affirmative Action

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| EGY | GEI Tc. 1 | 52.8 | 39.7 | 69.1 | 55.5 | 33.0 | 80.4 | -6.7 | 11.3 |
| IRN | GEI Tc. 1 | 56.6 | 48.4 | 65.4 | 52.5 | 33.4 | 72.8 | -15.0 | 7.3 |
| IRQ | GEI Tc. 1 | 63.1 | 58.0 | 68.4 | 54.2 | 39.0 | 71.9 | -19.0 | 3.5 |
| JOR | GEI Tc. 1 | 65.5 | 57.1 | 75.1 | 53.4 | 34.7 | 74.7 | -22.4 | -0.4 |
| TUR | GEI Tc. 2 | 73.6 | 60.3 | 84.5 | 60.0 | 43.3 | 76.5 | -17.0 | -8.0 |
| ISR | GEI Tc. 3 | 48.1 | 26.9 | 66.1 | 53.1 | 36.0 | 69.2 | 9.0 | 3.1 |

Table A.13: Oceania, Basic Rights

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| AUS | GEI Tc. 3 | 99.5 | 99.8 | 99.1 | 86.6 | 79.3 | 93.7 | -20.5 | -5.5 |

Table A.14: Oceania, Affirmative Action

| Country | GEI Tercile | Support (\%) |  |  | Belief about support (\%) |  |  | Misperceptions (pp) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | National | Men | Women | National | Men | Women | about Men | about Women |
| AUS | GEI Tc. 3 | 44.2 | 39.2 | 49.6 | 52.6 | 36.7 | 68.5 | -2.4 | 18.9 |

## Online Appendix B

Figure B.1: Survey Design: Global Gender Norms


Notes: The figure illustrates the survey design of our module in the Gallup World Poll 2020. The resulting variables of interest are: Support S $_{p} \in\{0,1\} ;$ Perceived_Support_among_Men ${ }_{p} \in[0,100]$; Perceived_Support_among_Women ${ }_{p} \in[0,100]$ for each policy issue $p \in\{$ Basic Rights,Affirmative Action $\}$. For our measure of misperceptions, we take the mean of Support in a given population group (e.g. men in each country) and subtract it from individual-level perceptions about support among that population group.

Table B.1: Survey Design: Global Gender Norms (Details)

| Block | Question |
| :--- | :--- |
| Support: Basic Rights | Please tell me whether you agree or disagree with the following <br> statement. Women should have the freedom to work outside of |
|  | the home. |

Affirmative Action: We will ask the previous question to 100 random MEN in Perceived "Truthful" Sup- [COUNTRY]. If you had to guess, regardless of what they will port among Men

Affirmative Action: We will ask the previous question to 100 random WOMEN in Perceived "Actual" Sup- [COUNTRY]. If you had to guess, how many of the women will port among Women say that they agree with the following statement? The government and companies should give priority to women when hiring for leadership positions.
Affirmative Action: We will ask the previous question to 100 random WOMEN in
Perceived "Truthful" Sup-
port among Women [COUNTRY]. If you had to guess, regardless of what they will say to us, how many of the women do you think will truly agree with the following statement? The government and companies should give priority to women when hiring for leadership positions.

## Details: Gallup World Poll 2020

Coding mistakes. We encounter a total of 19 data points with coding errors, which we remove from the original data set of 66,233 observations.

Sampling. In countries where interviews were conducted by phone, the sampling was done either by random digit dialing (RDD) or with a nationally representative list of phone numbers. In most countries, a dual sampling frame based on landline and mobile phone numbers was used. However, in some countries, the sampling frame encompasses mobile phones only. One person was interviewed in each sampled household. When the respondent was contacted by landline telephone, the interviewee was selected among eligible respondents aged 15 and older either by identifying the household member with the next upcoming birthday or by using the interviewing program to select an eligible household member randomly. Mobile phone users were directly interviewed. If the selected household member was not available, the interviewers would make several attempts to contact them before moving on to another household.

In the two countries where interviews were conducted face-to-face, India and Pakistan, sampling units were constructed by either stratifying along population weights or by random sampling at the ward/village level. The local enumerators then used a "random route procedure" to select a candidate household. The respondent was finally selected from a list of household members by a computer program. If the selected household member was not available, the enumerators made several attempts to contact them before moving on to another household.

Figure B.2: Experimental Design: Stigmatization


Table B.2: Experimental Design: Stigmatization (Details)

| Block | Question |
| :--- | :--- |
| Direct elicitation | Do you agree ("yes") or disagree ("no") with the statement be- |
|  | low? |

In my opinion, the government and companies should give priority to women when hiring for leadership positions.

Randomized response For the following question, we want you to answer yes or no. But (forced response design) we want you to consider the number of a die throw. If 1 shows on the die, tell us no. If 6 shows, tell us yes. But if another number, like 2 or 3 or 4 or 5 shows, tell us your own opinion about the question that I will ask you after you throw a die.

To ensure that we cannot see the outcome, please click on the link below and make sure to remember the number you rolled. Make sure to return to this survey afterwards.

Click here to roll the die (www.random.org/dice/?num=1)

Please confirm that you clicked on the link, rolled a die, and remember the number.

## [NEXT PAGE]

- If you rolled a $2,3,4$, or 5 , please tell us your opinion: Do you agree ("yes") or disagree ("no") with the statement below?
- If you rolled a 1, please tell us "No" (regardless of what you think).
- If you rolled a 6, please tell us "Yes" (regardless of what you think).

In my opinion, the government and companies should give priority to women when hiring for leadership positions.

Figure B.3: Experimental Design: Local Misperceptions


Table B.3: Experimental Design: Local Misperceptions (Details)

| Block |  | Question |
| :---: | :---: | :---: |
| Support |  | Please tell me whether you agree or disagree with the following statement: "The government and companies should give priority to women when hiring for leadership positions." |
| Perceived Support: <br> United States <br> tivized) | (incen- | We asked the same question you were just asked to a random sample in the US that is nationally representative. In the second part of this survey, we would like to know what you believe these people answered. If your guess is close to the truth (within 2 percentage points), you will earn an additional $\$ 1$ USD per question. <br> Please guess: What percentage of MEN in the United States said that they agree with the following statement? "The government and companies should give priority to women when hiring for leadership positions." <br> Please guess: What percentage of WOMEN in the United States said that they agree with the following statement? "The government and companies should give priority to women when hiring for leadership positions." |
| Information Provision |  | You guessed that [RESPONSE]\% of MEN agree with the statement that government and companies should give priority to women when hiring for leadership positions. According to the nationally representative survey, the actual share of men that agree with this statement is $38 \%$. <br> You guessed that [RESPONSE]\% of WOMEN agree with the statement that government and companies should give priority to women when hiring for leadership positions. According to the nationally representative survey, the actual share of women that agree with this statement is $45 \%$. |

Control Group
(No information Provision)

You guessed that [RESPONSE]\% of MEN agree with the statement that government and companies should give priority to women when hiring for leadership positions.
You guessed that [RESPONSE]\% of WOMEN agree with the statement that government and companies should give priority to women when hiring for leadership positions.
Perceived Support: In this part of the survey, we will ask you a few questions about

Perceived Support:
Texas (incentivized)
your perceptions of what people living in Texas think.
Please guess: What percentage of MEN in Texas would say that they agree with the following statement? "The government and companies should give priority to women when hiring for leadership positions."
Please guess: What percentage of WOMEN in Texas would say that they agree with the following statement? "The government and companies should give priority to women when hiring for leadership positions."
We asked the same question you were just asked to a random sample of men and women in Texas. In this part of the survey, we will ask you a few questions about your perceptions of what people living in Texas think. If your guess is close to the truth (within 2 percentage points), you will earn an additional $\$ 1$ USD per question.

Please guess: What percentage of MEN in Texas would say that they agree with the following statement? "The government and companies should give priority to women when hiring for leadership positions."
Please guess: What percentage of WOMEN in Texas would say that they agree with the following statement? "The government and companies should give priority to women when hiring for leadership positions."

Perceived Support:
Co-workers

In this part of the survey, we will ask you a few questions about your perceptions of what your co-workers think.
Please guess: What percentage of the MEN you work with would say that they agree with the following statement? "The government and companies should give priority to women when hiring for leadership positions."
Please guess: What percentage of the WOMEN you work with would say that they agree with the following statement? "The government and companies should give priority to women when hiring for leadership positions."

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[^1]:    ${ }^{1}$ We follow Bénabou and Tirole (2011) and think of social norms as the set of 'social sanctions or rewards' that incentivize a certain behavior. We focus on injunctive, but not descriptive norms. Actual social norms in a given society about a specific issue are therefore summarized by that society's views and opinions on that issue. Perceptions of social norms are given by individuals' beliefs about their society's views on the issue.

[^2]:    ${ }^{2}$ We demonstrate in Figure A. 10 and Figure A.11, that dropping observations where individuals report exactly $0 \%, 50 \%$, or $100 \%$ perceived support does not change the pattern of minority overweighting.
    ${ }^{3}$ There is a rich empirical literature on social norms and pluralistic ignorance in sociology and social psychology. Key contributions include Asch (1951); Bicchieri (2005); Cialdini, Reno and Kallgren (1990); Deutsch and Gerard (1955), and Prentice and Miller (1993). Furthermore, more recent work on social norms and pluralistic ignorance continues to shed light on these topics in relation to gender norms and other social issues (Tankard and Paluck, 2016; Paluck and Shepherd, 2012; Gelfand et al., 2011; Chung and Rimal, 2016).

[^3]:    ${ }^{4}$ A large literature in economics has used different measures of gender norms to assess their role in shaping women's outcomes (Fernández, 2007; Fernández and Fogli, 2009; Fernández, 2013; Field et al., 2021; Charles, Guryan and Pan, 2022).

[^4]:    ${ }^{5}$ The Gallup World Poll provides the respondent's self-reported gender. It is now broadly recognized that gender is not binary, but only two options were presented in the poll. This could lead to small measurement error in the data.

[^5]:    ${ }^{6}$ See Figure A. 4 for more details. Figure B. 2 and Table B. 2 in Online Appendix B contain the experimental documentation. We pre-registered the experiment and our hypothesis in the AEA RCT Registry (\#0010779).
    ${ }^{7}$ See Figure B. 3 for an overview of the experimental design and Table B. 3 for detailed instructions. We pre-registered the experiment in the AEA RCT Registry (\#0010130).

[^6]:    ${ }^{8}$ In principle, this is a testable hypothesis if one has panel data on actual support going back several years. However, there is no global dataset like that for our two questions about basic rights and affirmative action for women.
    ${ }^{9}$ Shapiro (2016) argues that reputational incentives may induce journalists to appear not to be "taking sides" in reporting, leaving voters uninformed on matters like climate change.

[^7]:    ${ }^{10}$ The literature on this topic is extensive and goes back decades. Two excellent discussions of the literature as well as the current frontier can be found in Gabaix (2019), who covers behavioral inattention, and Enke and Graeber (2021), who treat the issue of cognitive uncertainty. However, it is worth pointing out that the patterns we document are robust to dropping all observations where perceived support of exactly $0 \%, 50 \%$, or $100 \%$ is reported, which we demonstrate in Figure A. 10 and Figure A.11. Such dropping of observations is of course rather unwise since people may truly perceive support to be split in the population. When actual support is close to $50 \%$ it would be dropping individuals with accurate perceptions. Nevertheless, the minority overweighting is not driven by these observations.

[^8]:    ${ }^{11}$ Global evidence from media studies is limited in this regard, but recent evidence from the United States by Ash et al. (2022) suggests that the perpetuation of stereotypes in mass media is pervasive.

[^9]:    ${ }^{12}$ In the data, the gender population shares are not exactly equal. In all calculations, we do not assume exactly equal splits but use the actual gender shares.
    ${ }^{13}$ We can also state the stylized facts using the same notation.

[^10]:    ${ }^{14}$ It is worth noting, by this logic, that the reason men's views are relatively correctly perceived in highly gender-equal countries is not because there is somehow better information (from mass media or otherwise) about their true views. Instead, two forces distort beliefs but counteract each other.

[^11]:    ${ }^{15}$ This mechanism has been primarily explored in educational affirmative action (Arcidiacono and Lovenheim, 2016).
    ${ }^{16}$ Misperceptions about how people weigh the benefits and the costs of affirmative action may explain why referenda about it have been called throughout the United States over the past fifteen years and have systematically failed, while referenda to ban affirmative action have passed (Proposition 16 in California in 2020, which lost by over 14pp; Referendum 88 in Washington in 2019; Oklahoma State Question 759 in 2012; Nebraska Measure 424 in 2008; Michigan Proposal 2 in 2006; with the exception of Colorado Initiative 46 in 2006). Source: https://ballotpedia.org/Affirmative_action_on_the_ballot, last accessed Oct 1, 2022.
    ${ }^{17}$ The evidence on the causal impact of affirmative action for women, along the global spectrum of gender equality, is limited. It is not well understood how heterogeneous the impact is. Evidence points in certain directions, however. For example, the seminal paper by Chattopadhyay and Duflo (2004) examined the impacts among local village leaders in India. While this reform is outside the labor market context, they find that when women become village leaders due to randomly allocated reserved seats, they not only respond by providing public goods that women tend to favor, but they are also better at prioritization of public goods that the population as a whole desires. At least in that low-equality context, it appears that prioritizing women for leadership positions was beneficial for society as a whole. There is also various evidence from high-equality contexts, such as studies from Norway on the impacts of a gender quota within executive boards, where the evidence points to very modest or non-significant impacts on firm performance, as well

[^12]:    as broader societal benefits (Bertrand et al., 2018; Johansen and Sandnes, 2008; Nygaard, 2011; Ahern and Dittmar, 2012; Matsa and Miller, 2013; Eckbo, Nygaard and Thorburn, 2016). In this regard, the evidence is consistent with the findings by Ashraf et al. (2022) which suggest that the efficiency impacts of affirmative action may be highly heterogeneous across countries and depend on the level of gender equality to begin with. Similar implications can be derived for academia based on the findings of Iaria, Schwarz and Waldinger (2022) about the strongly positive selection of women in University STEM research over the course of the twentieth century.
    ${ }^{18}$ Evidence by Besley et al. (2017), studying a gender quota in Sweden, suggests that organizations find a way to replace the lowest performing men when exogenously induced to replace men with women. By this logic, a man of median productivity or even lower (i.e., the majority of males), may have nothing to lose from such policies and in fact could benefit from productivity gains within the organization, not to mention from the broader societal benefits.

