The Kindness of Strangers? Helping Behavior, Trust, and Gender in 25,000 Everyday Interactions Around the World

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Abstract

We examine how gender shapes 25,000 everyday interactions between strangers around the world. We manipulate the gender, class, and ethnicity of research assistants approaching pedestrians, then measure whether pedestrians: provide directions, help with dropped groceries, or lend their cell phone to the research assistant. Across all countries and experiments, we find that women are more likely to be helped — but less likely to help a stranger in need — compared to men, driven by gendered safety concerns. Gender is a larger and more consistent determinant of behavior than ethnicity or class. Survey questions on social trust correlate strongly with our outcomes on average — but cannot recover the gender gap we observe in real-world behavior. These findings highlight the critical role of gender in shaping social trust and participation in the public sphere more broadly.

Keywords: trust, discrimination, prejudice, gender, race

Main Text

Societies where strangers help each other — particularly when those strangers come from different social groups — outperform low-trust societies on a range of social and economic dimensions: Trusting societies are more likely to overcome collective action problems [1, 2], to have lower transaction costs by virtue of relying on people's word [3, p. 23], to experience good governance and economic growth [4–6], and to enjoy higher life satisfaction, happiness, and the 'warm glow' effect that comes with helping others [7–10]. Helping behaviors[1] become even more sociologically significant when they occur in public spaces — key sites of intergroup exposure [12, 13] and social exchange [14, 15]. While previous work finds evidence of discriminatory behaviors toward stigmatized socioeconomic and ethnic minorities in public spaces [15, 16], much less is known about the role of gender in shaping how strangers interact with one another. Yet gender typically structures a greater degree of daily interactions than either ethnicity or class, and matters a priori for determining whether strangers help each other — gender correlates with perceptions of security [17], which themselves shape the willingness to interact with strangers [18], and gendered social norms determine the acceptability of women interacting with strangers and lingering in public spaces, which in turn discourages women from pursuing education and employment [19–21].

How should we expect gender, ethnicity, and class to shape helping behavior in everyday life? Starting with gender, some studies find that women are more pro-social, trusting, and trustworthy than men [22–25], while others find the opposite result [26–30], and others still find no relationship or a highly contextual one [18, 27, 28, 31–34]. Scholars have attributed gender differences in helping behavior to factors like the costliness of generous behavior [23, 35], the role of gendered social norms and obligations [29, 36], and differences in empathy [25, 37] and brain network connectivity [38]. Turning to ethnicity, several studies find that immigrants and ethnic minorities typically report lower levels of helping behavior than their native-born and ethnic majority counterparts — driven in part by personal experiences with discrimination [21, 39–43]. When accounting for income, however, the ethnicity effect often diminishes [44]. Several field experiments also find that ethnic minorities are less likely to be helped, driven in part by differences in language [45], religion [46, 47], and class [48]. The evidence on class itself is more mixed. Some studies find no relationship between income and helping behavior [23, 34], while others find poorer individuals to be more pro-social, trusting, and generous than the rich on average [49]. Results on class and the likelihood of being helped are similarly inconclusive — richer individuals are more likely to be helped than poorer ones on Australian bus lines [48], but not on Italian subways [15], for instance.

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[1]We here define helping behaviors as "pro-social acts in dyadic situations, in which one person is in need, and another provides the necessary assistance to eliminate the others' need" [11]. As such, helping behaviors vary in the level of risk and reward that they entail, but nonetheless reflect everyday social trust within a community.

Based on the existing evidence, we hypothesize that women are less likely to help — but more likely to be helped — relative to men. We draw this hypothesis from the fact that most extant work comes from highly controlled lab or survey settings, where safety concerns and gendered social norms are far less pronounced than in the natural environment. We thus expect that the small or highly contextual results on gender trust gaps will grow substantially when moving into a real-world setting. We also hypothesize that ethnic majorities are more likely to help and to be helped, relative to ethnic minorities. Finally, we remain agnostic on the effect of class on the likelihood of helping or being helped — as well as on the size of gender effects relative to ethnicity or class effects.

To what extent does gender shape everyday interactions between strangers? Are gender effects more or less pronounced as the risk level — and thus trust required — grows? How do gender effects compare to the effects of other social identities, like ethnicity or class? We seek to answer these questions using data on helping behaviors from nearly $n = 25,000$ randomized interactions in seven cities across the globe: Buenos Aires, Argentina; Beirut, Lebanon; Nairobi, Kenya; Peshawar, Pakistan; New Delhi, India; Dhaka, Bangladesh; and New York City, U.S.[2]

We manipulate four features of the interaction: (1) the type of interaction, and therefore the level of trust required — ranging from asking for directions and dropping groceries on the low end of trust (following [47]), to asking to borrow a cell phone on the high end of trust (following [9] and displayed in Figure 1). We further randomize the level of risk required within-experiment, by having the confederate show a dead phone (low risk) or not show a phone at all (high risk) when requesting to borrow the subject's phone;[3] (2) the gender of the help-seeker, whom we refer to as the confederate; (3) the class of the confederate,[4] and (4) the ethnicity of the confederate in the U.S., Argentina, and Kenya.[5] Our primary goal is to study how each of these identities — gender, class, and ethnicity — affect the rate at which confederates are helped. A secondary goal is to measure how these identities at the *subject* level correlate with the probability of helping, although these measures are purely descriptive. Finally, this research design also allows us to study the extent to which identity overlaps — two strangers sharing the same gender, class, or ethnic identity — can boost helping behaviors.

We optimize for safety when selecting study neighborhoods within each city. We first shortlist neighborhoods that combine residential and commercial activity, then collect data on foot traffic in these neighborhoods for one week.

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[2]We select countries by maximizing variation on social trust as measured by the World Values survey (Figure B1) as well access constraints of our team.
[3]The cell phone experiment entails the highest level of trust relative to the other experiments because it involves taking on the risk of theft, as well as the risk of a stranger having ones' phone number. See Table B2 for a more detailed comparison of the three experiments.
[4]We define class as income-based, and manipulate class based on the confederates' outfit. Confederate dress maps on to two class categories: rich, and middle class. See the appendix for more details.
[5]These countries met our criteria of having visible and salient ethnic cleavages, where encouraging inter-ethnic interactions between strangers is also safe and ethical.

Analyzing the foot traffic data, we select neighborhoods and time windows that are most representative of the city as a whole when it comes to gender, ethnic, and socio-economic identities, and exclude neighborhoods heavily populated by tourists or university students, who may perpetuate atypical social trust dynamics. We further limit our study to wide, bustling streets, and work only during daylight hours. These selection criteria should therefore bias against finding any gender gaps in helping behaviors, while making our descriptive results on subjects' helping behavior as generalizable as possible. The study was conducted from July to December 2022.
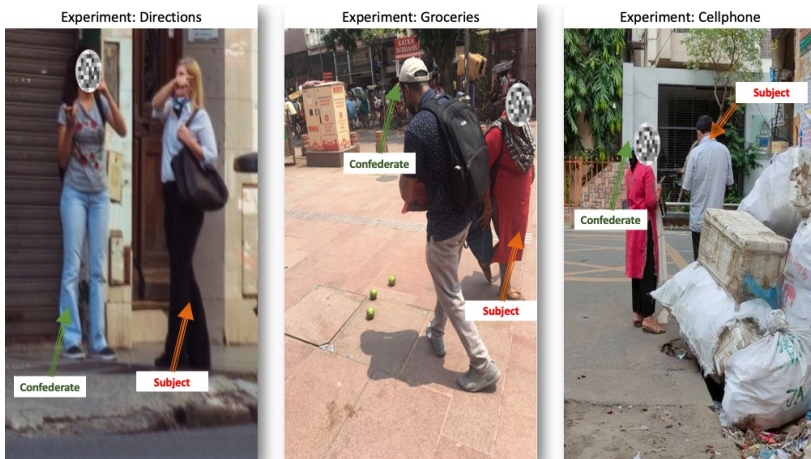

Fig. 1 Illustrative Images of the Three Experiments being conducted in Buenos Aires, New Delhi, and Dhaka respectively

This research design overcomes four challenges that typically complicate the study of helping behavior. First, we measure real-world behaviors. Standard survey items used to measure attitudes toward strangers (e.g. "In general, do you think most people can be trusted?") are designed to be ambiguous enough to be valid regardless of the country context. But this ambiguity typically comes at the cost of specifying the subject and object of the trust; trust toward whom and with regards to what [50]. Our three discrete behavioral outcomes — providing a stranger with directions, helping to pick up a bag of dropped groceries, and lending a cell phone — are just as comparable across countries, but with the added benefits of specifying the target and object of trust, measuring behaviors without subjects knowing that they are being studied, and consequently minimizing the role of researcher demand effects [51], social cues [52], and other noise that comes along with survey- and lab-based measures of discrimination. Furthermore, these behavioral outcomes capture the lived experience of ethnic, socio-economic, and gender minorities in a high-frequency, quotidian way that complements the study of rare, more extreme outcomes like gender-based violence or hate crimes — without the

downside of reporting bias. Second, existing studies test whether confederate-level traits, like class [15], expressing support for progressive social norms [47], and patriotism [48], can mitigate discrimination. In addition to manipulating confederate-level traits, we also record identity features of research subjects. By recording the identity of nearly 25,000 research subjects, we are able not just to describe which types of individuals are most likely to help — but also estimate the effects of identity overlap between strangers on boosting helping behaviors.

Third, most field experiments on helping behaviors focus on measuring behaviors toward one or two outgroups in one country. Instead, we run coordinated field experiments in several countries [53], randomizing many of the complex individual and situational factors that shape the outcome of interactions between strangers. In doing so, we broaden the scope of who is considered an 'outgroup' beyond ethnic identity markers to include class and gender. Finally, the evidence base on social trust is drawn almost exclusively from the Western world. Especially given the salience of gendered safety concerns and social norms in Global South, the focus on WEIRD countries undermines the external validity of existing work [54]. This problem is further compounded by a heavy reliance on data from surveys or lab games, which may mask different sensitivities to safety concerns and social norms between men and women in more organic settings.[6] We collect the vast majority of our data from Global South contexts to overcome these concerns. In short, the contributions of this paper are to measure behavior without subjects knowing they are being studied, to examine gender differences across multiple cultures using distinct measures of helping behavior, and to compare gender differences to those based on ethnicity and class.

Results

Figure 2 presents the average rates of help. We find that, on average, confederates are helped 46 percent of the time across our entire sample, with estimates ranging from 32 percent in Peshawar to 59 percent in Dhaka. We also document variation across experiment types: we see 76 percent help rates in the directions experiment, 35 percent in the groceries experiment, and 34 percent in the cell phone experiment (see Appendix D). As we will show, these responses track closely with stated outcomes in surveys.

Who is helped? Figure 3 visualizes which types of confederate are most likely to be helped. We find that gender effects stand out, especially when bench-marked against other social identities. Women are 9pp. more likely to be helped by strangers relative to men (p-value ≤ 0.001), while the rich are 2 pp. more likely to be helped relative to members of other socio-economic groups, and no detectable difference is found in strangers' willingness to help of different ethnic groups (see Table 1). These gaps widen when focusing on

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[6]Relatedly, field studies generally find that women have different a risk tolerance than men, whereas lab studies are inconclusive [55].
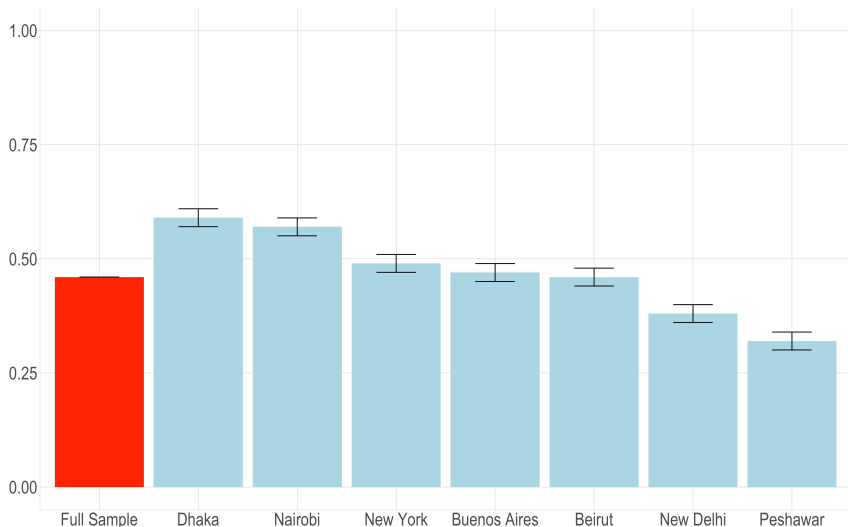
Fig. 2 Average Help Rates ($n = 24,535$): This figure presents the raw means of help rates across all interactions by city. 95% confidence intervals are also presented.

the cell phone experiment, which involves a greater degree of risk. In the cell phone experiment, we see helping gaps of 15pp. between men and women (p-value ≤ 0.001; Table E14), compared to the $5 - 6$ pp. gap between the rich and not rich, and between ethnic majorities and minorities (Tables E15 and E16).[7]

Who helps? In every country, we find that women are substantively and statistically significantly less likely to help strangers than men. We find that women are 6 pp. (p-value ≤ 0.001) less likely to help a stranger in need, on average, relative to men (Table 2). When focusing on the riskiest interaction — lending a stranger one's cell phone — the gender gap grows to 10 pp. (Table F27; p-value ≤ 0.001). Within the cell phone experiment, the gender effect further increases when we randomly manipulate the riskiness of the interaction. Relative to men, women are a further 3 pp. less likely to help when the confederates' dead cell phone is randomly hidden, although this effect is small and imprecisely estimated (p-value ≤ 0.20, Table H49). These gender gaps across and within experiments are larger and more consistent across countries than gaps based on class or ethnicity. The rich are 2 pp. more likely to help than the non-rich, and whites are 3 pp. more likely to help than non-whites in the U.S. and Argentina (p-value ≤ 0.05 and p-value ≤ 0.01; Table

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[7]All regressions are OLS models that take whether or not the subject helps the confederate [0, 1] as the main outcome. The independent variables of interest are confederate gender [male; female], confederate socioeconomic status [rich; not rich], and confederate ethnicity [majority; minority]. Other subject controls include age, religiosity, and a dummy variable for each city, footfall and time window. For the class treatment — where confederates change their clothing — we also include confederate fixed effects. Standard errors are clustered by interaction, such that everyone in the vicinity for groceries experiment (grocery dropping) is treated as a subject and considered part of the same interaction.
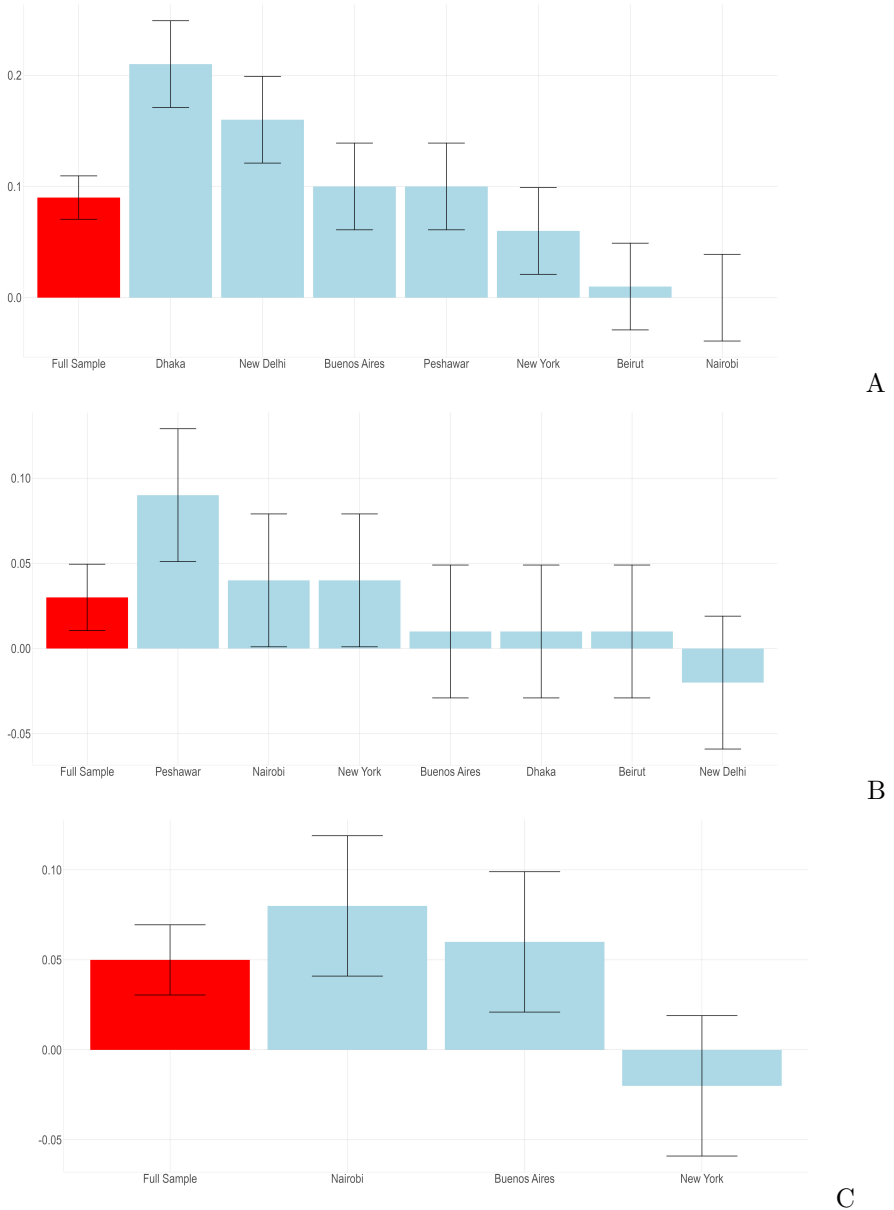
Fig. 3 Who is Helped? Differences in help rates based on confederate attributes: female effect (female vs male) (panel A), rich effect (rich vs not rich) (panel B), and ethnic majority effect (majority vs not majority) (panel C). Raw means are presented, along with 95% confidence intervals. The sample size for panels A and B is $n = 24,820$ and $n = 7,307$ for panel C, as we study ethnicity only in Nairobi, Buenos Aires and New York City.

Table 1 How help rates differ by confederates' gender, ethnicity, and race.

	Female vs Male (1)	Female vs Male (2)	Rich vs Not rich (3)	Rich vs Not rich (4)	Rich vs Not rich (5)	Ethnic majority vs Minority (6)	Ethnic majority vs Minority (7)
Treatment Effect	0.09***	0.09***	0.03***	0.02**	0.02**	0.02	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Observations	24533	24523	23681	23671	23671	7305	7299
Control Mean	0.51	0.51	0.46	0.46	0.46	0.47	0.47
Controls	x	✓	x	✓	✓	x	✓
Confederate Fixed Effects	x	x	x	x	✓	x	x

Notes: ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$. These OLS models regress the main outcome — whether the subject helps the confederate — on the following independent variables of interest: confederate gender (male; female), confederate socioeconomic status (rich; not rich), and confederate ethnicity (White/European descent; Black/Amerindian). Controls include subject age dummies for 6 groups, subject religiosity, and a dummy variable for each city, location, and high footfall (more than five pedestrians). Standard errors are clustered by interaction and reported in parentheses.

F18). Not only is this difference substantively small relative to the gender gap, but the effects of class and race tend to vary by country and experiment, often switching direction depending on the context (e.g. Panel B in Figure 4). The gender gap, on the other hand, is consistently positive across countries and experiments. These results are similar when looking at raw means (Figure 4), and when including a range of subject- and context-specific variables (Table 2).

Table 2 How help rates differ by subjects' gender, ethnicity, and race.

	Female vs Male (1)	Female vs Male (2)	Rich vs Not rich (3)	Rich vs Not rich (4)	Rich vs Not rich (5)	Ethnic majority vs Minority (6)	Ethnic majority vs Minority (7)
Treatment Effect	-0.06***	-0.06***	0.05***	0.02**	0.02**	-0.03**	-0.03**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Observations	24533	24523	24533	24523	24523	7305	7299
Control Mean	0.41	0.41	0.45	0.45	0.45	0.49	0.49
Controls	x	✓	x	✓	✓	x	✓
Confederate Fixed Effects	x	x	x	x	✓	x	x

Notes: ***$p < 0.001$; **$p < 0.01$; *$p < 0.05$. These OLS models regress the main outcome — whether the subject helps the confederate — on the following independent variables of interest: confederate gender (male; female), confederate socioeconomic status (rich; not rich), and confederate ethnicity (White/European descent; Black-/Amerindian). Controls include subject age dummies for 6 groups, subject religiosity, and a dummy variable for each city, footfall and time window. Standard errors are clustered by interaction and reported in parentheses.

Does identity overlap shape the outcome of interactions between strangers? Figure 5 shows that everyone is more inclined to help female confederates, but that help rates for female-female interactions (48%) tend to exceed help rates for male-male interactions (45%) — demonstrating slightly higher gender-based solidarity among women than in men (see Table 3 for overall results, and Tables G29 to G35 for country-specific results). Solidarity among women (+3pp.) is similar in magnitude to solidarity among ethnic majorities and the rich (+3 – 4 pp., Tables G45 and G44). By contrast, solidarity effects are
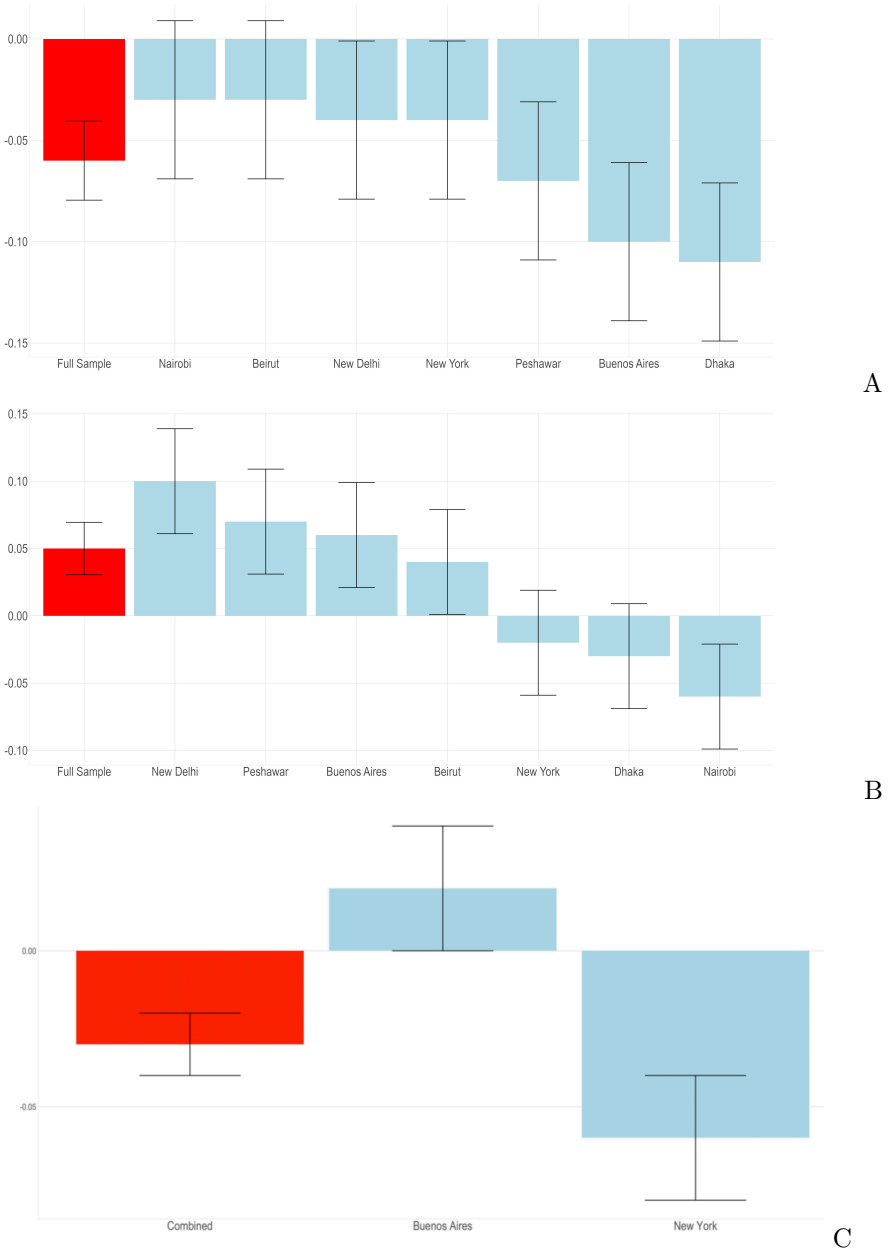
Fig. 4 Who Helps? Differences in help rates based on subject attributes: female effect (female vs male) (panel A), rich effect (rich vs not rich) (panel B), and ethnic majority effect (majority vs not majority) (panel C). Raw means are presented, along with 95% confidence intervals. The sample size for panels A and B is $n = 24,820$, and $n = 7,306$ for panel C, as we study ethnicity only in Buenos Aires and New York City, where Nairobi is excluded because of a lack of variation in subject ethnicity.

smaller among ethnic minorities (+1 pp., Table G45) and even turn negative among the non-rich (-2 pp., Table G44). In line with experimental evidence showing that women are more comfortable interacting with female rather than male police officers [56], we find similar patterns of increased willingness to interact with fellow women in the public space more broadly.

Table 3 Mean help rates by subject and confederate gender ($N = 24{,}820$)

	Confederate	
Subject	Female	Male
Female	0.48	0.38
Male	0.53	0.45

Notes: This table shows raw means for help rates for subject-confederate pairs by gender in our experiment.
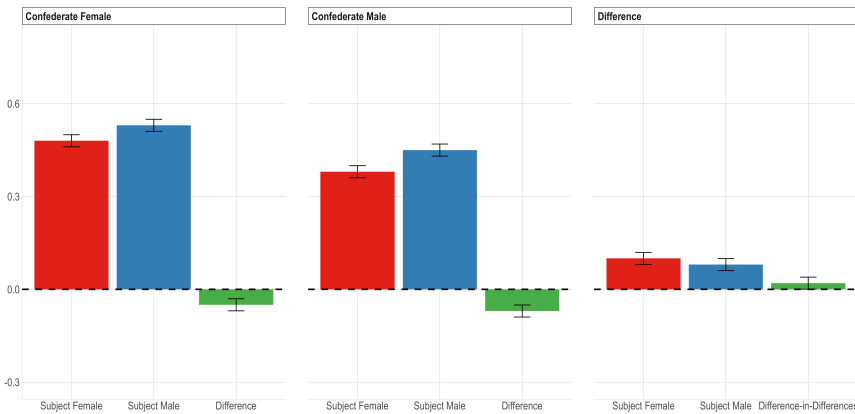

Fig. 5 How Identity Overlap Shapes Helping Behavior: The left panel plots the effects focusing on interactions when the confederate is female. The center panel focuses on interactions where the confederate is male. The right panel plots the difference between the left and center panel. Within each panel, we separate the effects by subject gender in the first two bars, while the third bar plots the difference between these first two bars. Raw means are presented, along with 95% confidence intervals for each test.

How do these results compare with survey evidence? When comparing samples from the same city, our experimental results correlate strongly with responses to the Gallup World Poll question on how often one has helped a stranger in the past month (Fig 6, cor = 0.73). This is reassuring with regards to the construct validity of our outcomes. The survey data does not, however, recover the gender differences in helping and being helped. Looking at the difference between how men and women respond, the correlation between our experimental results and the Gallup World Poll actually becomes negative (cor
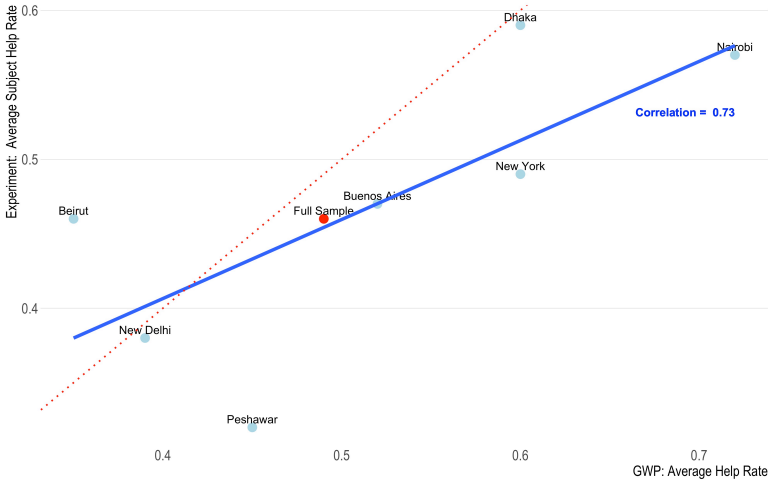
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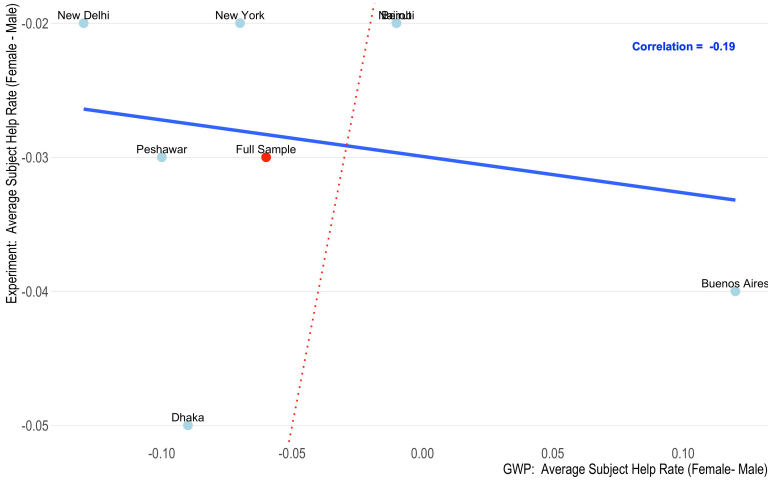
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Fig. 6 Comparing our Experiment with Survey Evidence: Panel (A) **Overall Help Rates** Comparing subject trust rates from our study with responses to the Gallup World Poll question: "Have you helped a stranger, or someone who you didn't know, who needed help in the last month?" Sample size of $n = 3{,}496$ for survey respondents, subset to subjects and respondents from the same city. Panel (B) **Gender Gap in Help Rates** Comparing the gender gap in subject trust rates from our study with the Gallup World Poll question: "Have you helped a stranger, or someone who you didn't know, who needed help in the last month?" Sample size of $n = 18{,}008$ for survey respondents and 24,820 for experimental subjects. Data are subset to subjects and respondents from the same city.

$= -0.19$).[8] This is likely because the survey question 'bakes in' selection bias in

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[8]We find that in the case of the correlation between our experiment and World Values Survey question on generalized trust the correlations change sign (correlations of -0.28 and 0.49, respectively; Fig. I53 and I55).

two stages: selection in which types of strangers approached the respondent, as well as whom the respondent decided to help. While other studies show that survey measures of trust correlate reasonably well with different measures of helping behavior [50, 53, 57], our results suggest that these questions are not designed to capture gender differences. Field experimental evidence on helping behaviors is here especially valuable, as it eliminates the selection bias that we know colors whom individuals choose to interact with in public spaces [15].

Discussion and Conclusion

Randomizing nearly 25,000 everyday interactions, we find that interactions between strangers are shaped first and foremost by gender. Gender is the largest and most consistent predictor of whether someone helps or is helped — even more so than class or ethnicity, which have thus far motivated studies of helping behavior. The riskier the interaction, the larger the gender gap becomes. When a stranger asks to borrow a cell phone, the gender gap is an order of magnitude larger than gaps between the rich and the non-rich, or ethnic majorities and minorities, a finding consistent with patterns of discrimination found in implicit association tests that measure subconscious bias [58].[9] The gender gap is also largest for the cell phone experiment — especially when the cell phone is randomly hidden — relative to the groceries or directions experiments, further pointing to the importance of safety concerns in driving womens' behavior. This finding diverges from existing lab evidence finding gender differences in risk aversion to be small in magnitude, rare, and task-specific [60] — suggesting that gender differences may be driven by safety concerns present in the natural environment but muted in controlled settings.[10] Finally, this gender gap is largely invisible from existing survey data. This divergence shows the importance of field experimental tests of helping behavior, which overcome biases in the types of strangers we surround ourselves with and ultimately choose to help.

The gendered patterns of social trust that permeate our public spaces are consequential because these spaces, perhaps even more so than workplaces or schools, offer "critical opportunities to encounter diverse others" [12, 15], which is especially true of gender-segregated societies. In focusing on everyday interactions, we also show how "subtle signals of sociability or exclusion" can reinforce existing inequalities at the micro-level [15]. Three implications follow from these findings. First, we document systematically low rates of contact

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[9]These results may be explained by the fact that gender is the most visible trait we study, and the easiest to 'manipulate' consistently across countries compared to, say, wealth. This is precisely one of the main contributions of this study: gender, as it appears in the real world, is a bundled treatment that is always a highly salient predictor of our actions. Gender is thus a 'bundle of sticks' similar to race [59].

[10]The large negative effect of being a man on perceived trustworthiness is likely an upper bound of the true effect for men — and a lower bound for women. Confederates are generally younger than the general population, posing a gender gap of anywhere from 4 years in India to 21 years in Argentina (Table C4). We speculate that this age gap dampens help rates for male conferences (who overlap with the stereotypical 'criminal' demographic) but inflates help rates for female confederates (see Table C4).

across gender lines. Women in gender-conservative societies like Peshawar, for instance, only interact with male strangers roughly 5% of the time in the cell phone experiment, as opposed to 25% of the time when the stranger is a fellow woman. Yet a growing evidence base shows that interpersonal contact across social groups typically increases tolerance and trust [61]. The more societies reinforce gender segregation, the lower the quantity and quality of intergroup contact. By extension, this lack of contact increases perceptions of intergroup threat, anxiety, and prejudice — which ultimately undermines social cohesion. Our work highlights that gender, as a social category in many patriarchal communities, is no exception to the dynamics of contact and trust.

Second, real-world measures of helping behavior capture different patterns of cooperation than lab-based measures. Differential sensitivities to social norms and safety concerns likely drive the gender trust gap we find in the real world, but which is absent in the lab. Finally, future work should investigate the extent to which social norms may shape helping behavior among women as opposed to safety concerns — two causal pathways that hold different policy recommendations. Overall, these results suggest a need to revise our conceptual and empirical frameworks for understanding the role of gender and everyday social trust, cohesion, and discrimination.

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