# Attitudes Toward Globalization in Ranked Ethnic Societies[*]

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**Abstract**

In ethnically ranked societies, the gains from trade hold redistributive implications for members of different ethnic groups. In this paper, we argue that trade provides new avenues of economic advancement for individuals belonging to ethnic groups that have historically been excluded from domestic labor markets and compartmentalized into lower-skilled occupations. In developing countries that hold a comparative advantage in producing lower-skilled labor-intensive goods, members of discriminated ethnic groups therefore stand to gain relatively more from an open economy. We present evidence from three large, post-election surveys of Indian voters from the period 1999 to 2009 to show that individuals belonging to disadvantaged caste and religious communities are significantly more likely to support trade liberalization. We then probe the mechanisms underlying this finding by using an original survey experiment on a nationally representative sample of Indian voters. We find that members of dominant ethnic groups focus exclusively on economic considerations while developing trade policy preferences. For members of discriminated groups, by contrast, ethnicity considerations are paramount and reinforce the effects of material self-interest. Our findings point to ethnicity as a key determinant of economic policy preferences regarding globalization for disempowered communities in ethnically segmented societies.

Keywords: *trade, globalization, identity, ranked ethnicities, public opinion*

## Introduction

Does support for trade vary across ethnic groups in a multiethnic society? Just as trade shifts resources across individuals belonging to particular economic classes (Scheve and Slaughter 2001; Mansfield and Mutz 2009), it also holds redistributive implications for members of different social groups (Guisinger 2013, 2017). If trade policies disproportionately benefit some ethnic communities and not others, then members of groups that stand to gain relatively more from those policies may develop distinctive preferences toward trade.

In this paper, we probe the determinants of individual-level support for trade liberalization. We argue that ethnic identity is likely to be a salient determinant of trade preferences for two related reasons. First, in societies where ethnic groups face discriminatory barriers to entry into employment, we expect greater support for trade amongst communities for whom the global economy presents new job opportunities in a less discriminatory environment (Hechter 1974, 1987; Osgood and Peters 2017). This is because international trade provides opportunities for occupational mobility that remain out of reach for these groups in domestic labor markets. Second, if a majority of the members of a discriminated ethnic group also hold the relevant type of skill that benefits from trade (Horowitz 1985), then permissive trade policies will be viewed as improving both the well-being of the ethnic group and the material prospects of individuals within the ethnic group. The overlap between ethnicity and skills therefore reinforces preferences, leading to greater support for trade among members of these ethnic groups than if only skill considerations were at play.

Our contention is that members of marginalized communities develop group-wise solidarity when formulating attitudes on trade because policies that benefit the group are considered to be synonymous with policies that benefit individuals. By contrast, the fortunes of members of privileged ethnic communities, who do not face constraints within domestic labor markets, are not anticipated to rise and fall with the fortunes of their co-ethnics, so far as trade is concerned. This would especially be the case if individuals in privileged groups are distributed along a spectrum of skills, and therefore benefit differentially from trade. In such a context, a tariff policy that benefits a co-ethnic is not obviously the policy that will reap dividends for the individual in question.

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We study public opinion on trade in India—the world's largest democracy, a complex multi-ethnic country, and a crucial case for studying how voters in developing countries formulate preferences over international economic exchange. Ethnic communities in India can be viewed as dominant or marginalized when it comes to their access to socio-economic resources. Within the ranked Hindu caste system, groups have been historically organized according to ascriptive occupational groups (Horowitz 1985). Castes like Upper Castes (UC) and Backward Classes (OBC) have historically been concentrated in higher-skilled, land-owning, artisanal or labor-based occupations, with privileged access to employment opportunities in domestic markets. In contrast, low ranked castes such as Scheduled Castes (SCs) and Scheduled Tribes (STs) have faced severe social and economic discrimination and have been segregated into low-paying and menial jobs. Outside of the Hindu caste system, religious minorities, most notably Muslims, face systematic economic and social discrimination, and are routinely persecuted by right-wing Hindu nationalist communities (Sachar Committee Report 2006, Wilkinson 2004).

In Figure 1, we show the distribution of wealth across respondents in the ranked caste categories in the caste system and for Muslims. While the average income of upper castes (those who are on the top of the caste hierarchy and traditionally highly-skilled and highly-educated) are higher than all other caste groups, they also show a greater degree of variation. Upper castes have both wealthy and poor members. However, the distribution of income for Scheduled Castes/Scheduled Tribes, castes at the bottom of the caste hierarchy, show that most respondents are poor with a small number with above mean wealth of the caste. Only 13% of SC/ST respondents have an income above the average upper caste income.[1] Consequently, we expect that SC/ST and Muslim groups, who face marked labor market discrimination and who are disproportionately low-skilled, would be likely to benefit from trade in a labor abundant economy like India and more likely to support permissive trade policies.

India is also a relevant country to situate our analysis because it experienced a sudden and largely externally-driven moment of liberalization in the early 1990s. We study the impact of trade

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[1]Income was measured using principal components analysis on asset ownership data from the National Election Studies surveys of 2004.

Fig. 1: Wealth across ethnic groups in India



| Upper | OBC | SC | ST | Muslims | Others |
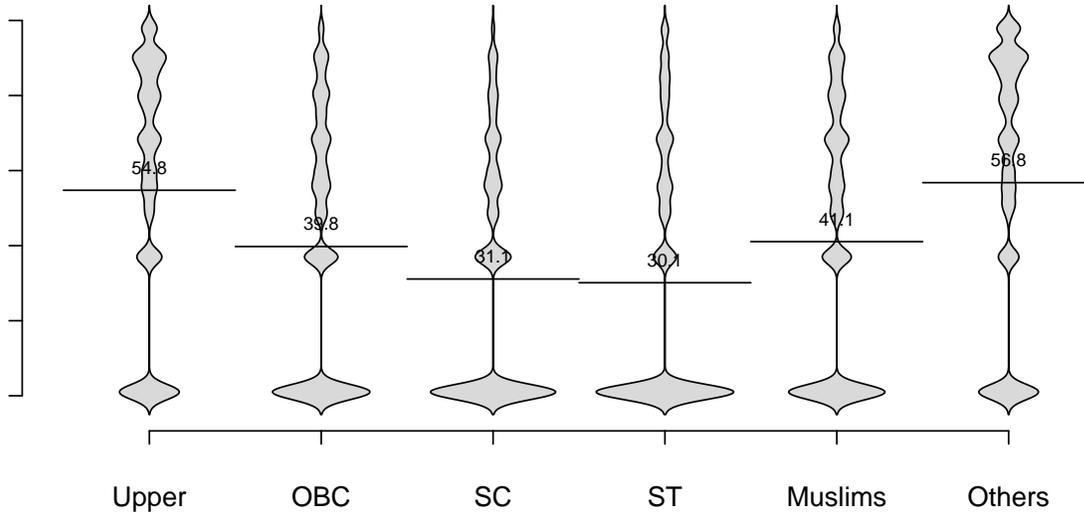
Note: Privileged groups include UCs and OBCs, and discriminated groups include SCs, STs, and Muslims

liberalization on public opinion patterns a decade later with data from three rounds of National Election Studies (NES) conducted in the aftermath of the Indian national elections in 1999, 2004, and 2009. We use this data to estimate the determinants of individual-level support for a question on trade that was repeated across those surveys. Using ordered and multinomial logit regressions, we find that discriminated ethnic groups—SCs, STs, and Muslim—tend to be more supportive of trade than UC and OBC voters, groups that are more easily able to access employment opportunities within domestic labor markets. We also find that low-skilled respondents, measured using education and income, are more supportive of trade. Importantly, the effects of ethnicity on trade remain robust among both high and low skilled SC, ST and Muslim respondents. We also study aggregate support for trade at the state-level (using the NES) as a function of state-level economic, occupational, and ethnic measures that we created using data from the National Sample Survey Organization data on over 100,000 respondents in 2004 and 2008. The state-level analysis reveal that states with higher percentages of SC, ST and Muslims have higher levels of support for trade.

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Although our findings from the NES studies are strongly suggestive, they are open to several interpretations. In order to test the core theoretical mechanisms underlying our argument, we next employ an original survey experiment on a nationally representative sample of over 4,200 respondents in India. Our experimental findings show, first, that when we provide respondents with information about ethnic groups that win and lose from trade, it is the SC, ST, and Muslim respondents in our sample that display sensitivity to co-ethnics (as compared to members of high-ranked ethnic groups) winning and losing from trade. Further disaggregation of our results shows that both high and low-income SC/ST/Muslims are sensitive to the co-ethnic treatments and change their responses in support of policies that benefit their co-ethnics. We find no such comparable co-ethnic effect amongst higher ranked groups.

We also examine the extent to which the economic and skills profiles of voters, regardless of their ethnic identity, shape their support for trade. Our experimental findings demonstrate that when respondents are given information about the economic winners and losers of trade, high-skilled respondents develop more protectionist viewpoints. These results fit well with prevailing political economy theories of comparative advantage, which posit that opposition to trade in labor-abundant developing countries is likely to be concentrated among high-skilled workers who stand to register wage decreases and job losses from trade with advanced industrialized countries. These results indicate that voters in India tend to support or oppose international trade by using economic frameworks that have been shown to explain preference formation in advanced industrialized economies.

Finally, we probe the joint effects of giving respondents information about both the ethnic and the economic winners and losers from trade. Among high ranked groups, there is no evidence of an interaction across the ethnicity and skills treatments, in line with our earlier findings. In other words, members of these groups do not attach importance to a co-ethnic benefitting from trade, either when presented or not presented with information about the skills based distributive impact of trade. But among members of a low ranked groups, we find evidence of an interaction effect. When presented with information about the skills based impact of trade, members of disadvantaged

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groups display marked co-ethnic preference. We view these findings as corroboratory evidence for the key mechanisms related to the offsetting/reinforcing effects of ethnicity and skills for members of disadvantaged economic groups.

This paper is the first to present systematic evidence on the determinants of trade preferences across states, ethnic groups, and individuals in India.[2] In doing so, it contributes to a growing body of work on public opinion on economic policy in the developing world, and raises a fresh set of research questions about the overlapping role of ethnicity and skill cleavages in shaping policy preferences. Our findings provide evidence for the claim that a greater overlap between ethnicity and economic interests increases the extent to which voters within a community develop similar views on trade policy. This evidence is consistent with theories of cross-cutting and overlapping cleavages (Huber and Suryanarayan 2016, Dunning and Harrison 2010) and research that has focused on how the internal characteristics of ethnic groups shape their preferences towards economic policy (Baldwin and Huber 2010, Lierberman and McClendon 2013). When ethnic and economic interests overlap – either as a collective experience of discrimination or a specialization of skill that benefits from trade – voters do not need to choose between their ethnic interests and material interests. We thus observe a convergence in their policy preferences. Yet, when members of the same ethnic group have diverging economic interests – either through heterogenous skill profiles or through existing access to domestic markets – a phenomenon that characterizes many of the dominant caste and religious groups in India, their economic policy preferences diverge.

Policymakers in India, as well as the politicians in India's two main national parties, the BJP and Congress, are largely Hindu and upper caste. Our results are surprising because they indicate that policymakers' policy initiatives in trade liberalization sit at odds with their upper caste constituents. Prevailing work in Indian politics has explained trade liberalization as an elite-driven phenomenon (Corbridge and Harriss 2000).[3] Our findings are consistent with an alternate explanation for India's gradual embrace of trade liberalization over the past 25 years—these policy

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[2]For studies of ethnicity and trade in other contexts, see: Guisinger 2013, 2017; Jamal and Milner 2013; Mansfield and Mutz 2009; Mutz, Mansfield and Kim 2017.

[3]See, also, Alamgir (2009); Bardhan (1984); Bhagwati (1993); Kohli (1989); Sachs, Varshney and Bajpai (1999).

maneuvers have been consistent with the preferences of the majority of the electorate. Put simply, in the context of an electorate which is disproportionately lower-skilled, our finding that the lower-skilled are more supportive of trade liberalization suggests that open economy trade policy might have broad-based electoral support (Milner and Kubota 2005). Additionally, our finding that disadvantaged communities such as SC, ST, and Muslims voters express support for free trade suggests that economic policy might be a profitable electoral tool used by upper caste, Hindu politicians to win support from these communities (Gaikwad 2018).

## Ethnicity and Trade Attitudes

We begin with the premise that the economic interests of voters shape their support for trade policy (Mayda and Rodrik 2005; Mayer 1984; Scheve and Slaughter 2001). Economic theory predicts that the formation of trade-based cleavages depends on the mobility of factors between alternate uses in different sectors within the domestic economy. When factors are mobile, following the Hecksher-Ohlin/Stolper-Samuelson (HO) framework, cleavages are likely to form between owners of different factors of productions, such as, for example, labor and capital (see, e.g., Rogowski 1989). Developing countries typically have a comparative advantage in producing labor intensive, low-skilled goods due to their abundant supply of low-skilled labor. Individuals in these economies who are employed in low-skilled sectors are therefore predicted to benefit materially from an expansion in international trade.[4] This theory predicts that the locus of support for trade liberalization in developing countries lies in relatively low-skilled citizens—those who are employed in land- and labor-intensive sectors that stand to expand production after gaining access to markets in advanced industrialized nations. To the extent that high-skilled workers are employed in capital-intensive industries that are relatively less competitive in global markets, they should oppose trade.[5]

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[4]For example, a worker in an industry such as low-skilled garment manufacturing that is located in a country that has more low-skilled labor relative to the rest of the world should be expected to support trade. By contrast, high-skill, high-income workers who work in industries that must compete with capital intensive industries in advanced industrialized nations are expected to oppose trade liberalization.

[5]Cross-national data appears to support this proposition; as Milner and Kubota (2005) show, developing countries were more likely to support trade liberalization after democratization because developing countries have more lower-skilled citizens—who are predicted to benefit from liberalization—than high skilled citizens. Yet, individual-level

Yet in ethnically divided polities, ethnic cleavages likely shape whether and how individuals are able to navigate domestic markets as well as the kinds of skills they acquire (Horowitz 1984; Weiner 1978). Consequently, ethnicity could shape policy preferences if individuals from different ethnic groups have differential economic profiles. Focusing on research on the ethnic determinants of policy, Lierberman and McClendon (2013) find using data from African countries that politically salient ethnic groups and economically distinct ethnic groups were more likely to hold different policy preferences. In one of the few research papers that exist on the ethnic determinants of trade preferences, Guisinger (2013) argues that white Americans are more supportive of restrictionist trade policies because they believe the benefits of trade protectionism accrue to "deserving" and hard-working (white) Americans.

We build on these findings and argue that ethnicity is likely to shape preferences for trade in ethnic systems where socio-economic status and ethnic identity overlap (Horowitz 1984). In such places, ethnic communities are often excluded from opportunities for economic advancement. Discriminated groups face obstacles to occupational mobility, and are often forced into culturally segmented domestic labor markets. Thus, we expect that communities that are historically excluded from formal sector occupations will be more supportive of trade as they expect trade to generate new, more egalitarian, avenues of employment. This builds on the findings of Osgood and Peters (2017), which documents that women-owned enterprises in patriarchal countries tend to be more export-oriented because the global economy affords them opportunities to escape from domestic discrimination. Our claims lead to the following expectations:

*Claim 1a*: Ethnic groups that are discriminated in domestics labor markets will be more supportive of trade.

*Claim 1b*: Both high and low skill members of discriminated groups will be more

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evidence on trade policy preferences in developing countries is sparse (Jamal and Milner 2013). Trade policy might well be influenced by industry- and firm-level lobbying dynamics (Grossman and Helpman 1994; Hillman 1982; Helpman, Melitz and Yeaple 2004; Melitz 2003), domestic and international institutions (Bailey, Goldstein and Weingast 1997; Mansfield, Milner and Rosendorff 2000; Hiscox 1999; Bagwell and Staiger 1999; Tomz, Goldstein and Rivers 2007; Rose 2004), or ideational environments (Irwin 1996; Chwieroth 2007; Schonhardt-Bailey 2006). Given our theoretical focus on public opinion, we abstract away from these alternate approaches and focus on the role of mass preferences.

supportive of trade, because trade presents non-discriminatory access to new economic opportunities.

In addition, individuals belonging to discriminated groups tend to be concentrated in particular skills-based communities—especially those that occupy the lower rungs of the skills distribution in the economy (Hechter 1974, 1987). We argue that the overlap between ethnic and skill cleavages increases policy congruence over trade, and prevents cross-pressures on preference formation across ethnic and skill concerns. This overlap means that individual members do not have to make tradeoffs between the benefits/losses accruing to an ethnic group from trade, and what an individual in the group experiences. By contrast, when ethnic group members are distributed across a wider range of skills, individual and group-specific interests are predicted to diverge—leading to a wider range of policy preferences for trade within the group.

> *Claim 2a*: Ethnic groups that have a greater proportion of members with skills that benefit from trade will be more supportive of trade.
>
> *Claim 2b*: Both high and low skill members of ethnic groups that have a greater proportion of members with skills that benefit from trade will be more supportive of trade because trade will be viewed as improving the future well being of the group.

In summary, our contention is that ethnic identities hold the potential for influencing policy preferences for individuals belonging to ethnic groups when ethnicity overlaps with the economic interests. Groups having overlapping ethnic and economic interests might stand to benefit from occupational mobility arising from new employment opportunities generated in the international economy and if a majority of their ethnic members have a specific skills that is rewarded by the international economy. Meanwhile, for individuals belonging to ethnic groups that do not face barriers to occupational mobility in the domestic economy, and that are likely to have cross-cutting cleavages with respect to their economic, trade-based interests, the effect of ethnicity is expected to be relatively less salient. We also expect low-skilled workers, regardless of ethnic identity, to be more supportive of trade and high-skilled workers to be anti trade.

## The Indian Case

India is a particularly relevant setting to situate a study on the ethnic determinants of trade support. A long standing literature has focused on the role of ethnicity in shaping economic relations in India. This literature has argued that ethnic differences within the caste system—that historically placed individuals into descent-based occupational castes—are central to explaining group-wise economic outcomes. Caste differences have been associated with discrimination against lower castes in employment, impeded trade across castes, and weaker access to public goods. (Anderson 2011; Munshi 2017; Abhijit Banerjee and Rohini Somanathan 2007; Banerjee, Lakshmi Iyer, and Somanathan 2005; Beteille 1996). Importantly, the organization of castes along occupational lines has led to the scheduled castes being spatially segregated and forced into low-paying, labor-intensive and menial jobs. In addition to caste, the Hindu-Muslim divide also systematically shapes economic relations. Muslims routinely experience labor market and housing market discrimination. Consequently, Indian Muslims have seen sharp declines in their economic and political status in the post-independence era (Sachar Committee Report 2006, Asher and Novosad 2018, Wilkinson 2004).

Scholars have viewed ethnicity as a key factor in shaping electoral politics and political preferences in the Indian states. While individuals possess multiple ethnic identities of language, religion and caste, the role of caste has received particular attention; indeed, some have argued that people in India "vote their caste, not cast their vote" (Corbridge and Harriss 2000; Chandra 2004; Jaffrelot 1996; Jenkins 1999; Varshney 2002). Given that caste was historically associated with a division of labor within a society, the overlap of caste and class or education (i.e., the extent to which some castes are wealthy and some castes are poor) is expected to shape the degree to which caste emerges as salient in voting behavior and economic preferences (Huber and Suryanarayan 2016).

Together these preexisting research agendas suggest that we should expect a relationship between ethnic dynamics in the state and support for trade for two reasons. First, it is likely that economic development in trade has disproportionately benefitted some caste/religious groups versus others, especially if certain castes/religions are concentrated in certain skills. If this is the case

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then the degree to which caste/religious identity overlaps with skills is likely to affect aggregate support for trade. Second, and relatedly, the extent to which caste/religion overlaps with occupations is likely to polarize views across classes, especially if caste/religious groups are routinely discriminated against for higher-status jobs.

The Indian economy experienced a sudden shift to trade liberalization following a balance of payments crisis in the early 1990s (Edmonds, Pavcnik and Topalova 2010; Topalova and Khandelwal 2011). The crisis resulted in a dismantling of restrictions on many imported goods and a steep decline in the average duty rate. The scholarship on trade in India has argued that bureaucrats, technocrats, and international institutions have been the primary actors influencing trade regulatory dynamics (Alamgir 2009; Bardhan 1984; Bhagwati 1993; Kohli 1989; Sachs, Varshney and Bajpai 1999). Scholars maintain that unlike redistributive policy, which might have entered the domain of "mass politics," trade policymaking has essentially remained the province of "elite politics" (Ahmed and Varshney 2012, 80). The process by which reform were undertaken, therefore gives us an opportunity to study the impact of nationally-determined permissive trade policies on public support for trade a decade later.

In the next section, we test our claims about ethnicity and trade support and also arbitrate between expectations from economic theories and empirical studies of trade in India for the relationship between skills and trade support in the Indian states.

## Observational Survey Data

We begin by analyzing nationally representative survey data on individual attitudes toward trade liberalization in India. We relied on the National Election Studies post-poll surveys conducted after the 1999, 2004, and 2009 general elections. These surveys included questions that probed both respondents' attitudes toward trade policy, as well as socio-economic and demographic characteristics pertaining to respondents' education, incomes, assets, religion and caste backgrounds, and geographical locations. We analyzed this data both at the individual-level and aggregated at the state level.

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## Trade Policy Preference

Our primary dependent variable captures respondents' answers to the following survey question that was asked in each of the three NES rounds:

"Foreign companies should not be allowed free trade in India."

Do you agree or disagree?

An advantage of this question is that it presents the choice of supporting or opposing trade liberalization in simple, concrete terms that would be easily understood by different categories of respondents, including the poor and less educated. Rather than probing preferences on tariff protection—a policy domain that is plausibly inaccessible to some voters—this question simply asks respondents to decide if foreign companies can freely and openly trade in India. At the same time, it is clear that the relevant topic of interest is free trade. The choice of the word "foreign" over the names of particular countries is also noteworthy. If respondents associated specific countries with additional attributes such as, for example, China with military threats or the U.S. with American mass culture, then it would be difficult to disentangle whether their responses were being driven by trade or by other considerations such as geopolitics or cultural factors.

In 1999, respondents were given three choices: agree, no opinion, or disagree. In 2004 and 2009, they were given five choices: fully agree, somewhat agree, no opinion, some disagree, and fully disagree. We re-scaled the variables to hold a three-point value between 0 and 1, with higher values indicating greater support for trade liberalization.

## Ethnic Variables

In order to test the effects of a respondent's ethnic background on their support for trade, we operationalize ethnic categories as follows:

- Marginalized Ethnic Groups: This is a categorical variable that take a value of 1 if an individual is Scheduled Caste, Scheduled Tribe, or Muslim, the groups that we argue experience

labor market discrimination in India and ) if an individual is an upper caste, backward caste, or other religious groups. .

- Politically Salient Ethnic Groups: This is a categorical variable that sorts respondents into six politically salient umbrella categories, an approach used by recent scholars working on caste and voting behavior in the Indian states (Heath 2005, Dunning and Nilekani 2013, Huber and Suryanarayan 2016). These categories are: upper castes, backwards castes, schedules castes, scheduled tribes, muslims and other religions. These caste categorizations were used to proxy for the overlap between caste and skills, as these caste categories historically represented distinct descent-based occupations.

## Economic Variables

In order to test the effects of a respondent's skills background on their support for trade, we operationalize skills in three ways:

- Education: We use education as an indicator of skills (Scheve and Slaughter 2001), although note that education might impact trade policy preferences from channels outside of material self-interest. This might be the case if education triggers norms of cosmopolitanism or a taste for globalization among respondents (Hainmueller and Hiscox 2006). We created a variable *Education*, which measures whether a respondent has attained below- or above-average education compared to other respondents in the survey.

- Income: We measured skills in terms of individuals' income. The variable *Income* uses self-reported measures of individuals' incomes to classify whether an individual is above or below the average income in the sample.[6] Given that higher skilled workers tend to command higher wages, income can serve as a proxy for individuals' skill levels.

## Empirical Results

In Table 1 we examine the relationship between the ethnicity of the respondent and individual support for trade. In each of the ordered logit regressions in Table 1, we control for the age, gender, a dummy for the Northeast states, state and year fixed effects, and robust standard errors. Column 1 probes the relationship between a respondent's ethnicity classified as *Marginalized Ethnic*

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[6]Because income measures were not collected in the 1999 NES survey, we restrict our analysis to the 2004 and 2009 NES surveys.

*Groups.* The results are striking. Compared to upper castes and backwards castes (the base category), the dummy variable for Scheduled Castes, Scheduled Tribes and Muslims is positive and robust at conventional thresholds. In Columns 2 and 3 we examine the effect of skills measured as Education and Income. The coefficients for these variables are negative and robust at conventional thresholds. Overall these results suggest strong evidence for the political economy theories of trade policy attitudes. We find support for the proposition that low-skilled individuals are more likely to support free trade. In columns 4 and 5 we include both the ethnic and skills variables together and the coefficients on the SC/ST and Muslim dummy continue to remain significant across specifications. These results provide suggestive evidence that caste and religious groups that are discriminated against appear to be particularly supportive of trade and that these effects are robust despite accounting for the level of skills in the communities. In other words, there appears to be an independent effect of ethnicity on trade that cannot simply be explained by the skill levels of the respondent in these communities.

In Columns 6 and 7, we probe the relationship between skills and ethnicity and split the sample into high and low skill respondents using the Education measure. Recall that we expect discriminated groups to support trade regardless of the skills profile of their individual members. Similarly, we expect both high and low skilled members of ethnic communities in which a disproportionate number of people have the skill profile that will benefit from trade to support permissive policies, as these are viewed as improving the average well-being of the group. We find that both high-skill and low-skill SC/ST/Muslims are more supportive of trade suggesting that the experience of discrimination faced by SCs and Muslims, and the overlap of skills with ethnicity for a community like SCs, is likely associated with support for trade from all members of the group.[7]

***Modeling "No-Opinions"***: We follow the recommendations of Kleinberg and Fordham (2018) and retain the "Don't Know" and "No Opinion" respondents instead of treating these as missing values. In Table 7 in the appendix we attempt to directly model the fact that many respondents

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[7]In Table 8 in the Appendix we replicate Table 1 and find that SC and Muslims are more supportive of trade, but not STs. The skills variables remain negative and robust, and identity is not a significant predictor of trade for other ethnic groups.

Tab. 1: Individual-Level Relationship Between Support for Trade and Measures of Ethnicity

|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  | High Educ | Low Educ |  |
| SC/ST/Muslim | 0.064*** |  |  | 0.048*** | 0.059*** | 0.042** | 0.057* |
|  | (0.015) |  |  | (0.015) | (0.016) | (0.018) | (0.030) |
| Education |  | -0.121*** |  | -0.113*** |  |  |  |
|  |  | (0.017) |  | (0.017) |  |  |  |
| Income |  |  | -0.089*** | -0.081*** |  |  |  |
|  |  |  | (0.016) | (0.016) |  |  |  |
| N | 69,609 | 69,665 | 60,562 | 69,609 | 60,506 | 46,599 | 23,010 |

– Models are estimated using ordered logit, state and year fixed effects with robust standard errors.
– Models control for age and gender of respondent and a dummy for the North East states.
– Standard errors in parentheses: * p<.10, ** p<.05, *** p<.01.

cannot or do not wish to answer questions about trade support. We use multinomial logit regressions and find that is is certainly true that less educated and discriminated communities are more likely to say they do not have an opinion compared with upper castes, backward castes and other religious groups. Importantly, the results for the coefficient on the SC/ST/Muslim dummy remain positive and robust while explicitly modeling support of trade.

***State-Level Economic Determinants***: We studied the relationship between skills and trade preferences by analyzing data at the state level. Given India's federal system, states retain jurisdiction over many levers of international economic policy, including state-level trade policy tariffs and subsidies, foreign direct investment, and a plethora of business-related policies. We created state-level averages of public support for trade liberalization.[8] We constructed several state-level measures of economic determinants that are expected to influence mass preferences on international trade policy. Our primary data comes from the Government of India's National Sample Survey Organization (NSSO) "Employment and Unemployment" surveys. In particular, we use data from 1999-2000 (55th Round), 2003-2004 (61st Round), and 2008 (64th Round). These surveys contain nationally representative data on individuals' occupation and wages of well over 100,000 respondents in each round. Individual respondents in these surveys reported both their state of residence and their primary occupations, categorized according to India's National Industrial Classification

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[8]We included all the states for which the NES has data, but excluded union territories such as Chandigarh and Delhi.

(NIC) codes.[9]

We elaborate on the state-level measures and the results in Table 10 in the Appendix. We find that the greater the proportion of SC/ST/Muslims in a state, the higher the levels of support for trade in the state and the coefficient on this variable is significant, similar to the individual-level findings. We also find a robust and negative relationship between the percent of high-skilled workers in a state and support for trade. Taken together these provide further corroborating evidence to the claims that ethnic groups that have historically been marginalized are more supportive of trade, a finding similar to the individual-level analysis presented earlier.

It is possible that the survey question used across the NES surveys is eliciting negative responses from educated elites due to social desirability bias or because of ideological reasons unrelated to their skills. It is also possible that poorly educated or marginalized groups are misunderstanding the trade-offs of trade policy in systematic ways, resulting in an over estimation of their support for trade. In order to further probe support for trade and in order to ameliorate any issues relating to both social desirability as well as concerns about comprehension, we designed a series of survey experiments to further probe the relationship between skills, ethnicity and public support for trade that we present in the next section.

## Survey Experiment

In this section, we subject our hypotheses to a series of rigorous experimental tests. We embedded a survey experiment within a large, nationally representative survey of voting age citizens in India that we conducted between July and October, 2017. Below we describe our sample frame and sampling methodology, following which we discuss our experimental design and results.

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[9]The NIC codes were classified according to the NIC-1998 system for the years 1999 and 2004, and the NIC-2004 system for the year 2008. We created concordances to standardize the classification systems across all rounds.

## Sample

Our survey was implemented using Computer Assisted Telephone Interviewing (CATI) that was able to draw on the population-wide database of all mobile phone and landline connections in the country.[10] An automated predictive dialer randomly selected phone numbers to dial from all Indian telecom circles and digital exchanges. Given that the tele-density rate—and, in particular, mobile phone usage—is extremely high in India, we were able to access the vast majority of demographic groups through this mode of contact.[11] To maximize participation, respondents were given the choice to take the survey in eleven languages.[12] On key demographic characteristics (specifically, gender, age, education, income, religion and caste profiles, and geographic distribution), our sample matched the population of India according to its last census.[13]

## Experimental Design

The centerpiece of our empirical analysis is a vignette experiment. The vignette began with the following introduction: "We want to hear your views on trade between India and other countries." Respondents were then assigned to one of the six following treatment groups:

1. T1 (Control): "Suppose trade will increase the wages of **some workers**. But trade will lower

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[10]There were several advantages to our mode of interviewing. Telephone surveys help mitigate privacy and social-desirability concerns that typically arise in the context of face-to-face surveys conducted in group settings in India (for example, if men insist on supervising interviews of women in the household), increasing in turn the truthfulness of elicited responses. Whereas certain types of individuals are extremely difficult to sample through Face-to-Face interviewing (such as, for example, employed workers in time intensive jobs) or internet-based interviewing (for instance, illiterate individuals), it is relatively easier to schedule and conduct telephone interviews with a broad range of citizens, boosting the representativeness of the sample. Additionally, we were able to record and supervise in real time the interviews, eliminating enumerator errors and enhancing the quality of responses. The survey was conducted by the firm CVoter News Pvt. Ltd.

[11]In order to obtain a geographically and socio-economically representative sample, we over-sampled members of low-frequency type demographic groups. Note, also, that incoming calls are free for telephone users; respondents therefore did not have to bear any financial costs for the interviews, which meant that members of particular groups (such as the poor, for example) were no less likely to drop out of our sample frame than others. Additionally, public opinion interviews are exempted from the "Do Not Call" registry maintained by the Indian government for citizens who wish to avoid marketing and sales calls.

[12]These languages were Hindi, Punjabi, Gujarati, Marathi, Kannada, Malayalam, Tamil, Telugu, Odiya, Bangla and Asamiya.

[13]Our sample included the entire geography of India, and excluded only a few of the remote north-eastern states and union territories.

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the wages of **other workers**."

2. T2 (Skills Treatment): "Suppose trade will increase the wages of **some workers who are low-skilled and have not passed high school**. But trade will lower the wages of **other workers who are high-skilled and have passed high school**."

3. T3 (Co-ethnic Gains Treatment): "Suppose trade will increase the wages of workers like **(co-ethnic category and name / non-co-ethnic category and name)**.[14] But trade will lower the wages of **other workers**.

4. T4 (Co-ethnic Loses Treatment): "Suppose trade will increase the wages of **some workers**. But trade will lower the wages of workers like **(co-ethnic category and name / non-co-ethnic category and name)**.

5. T5 (Skills + Co-ethnic Gains Treatment): "Suppose trade will increase the wages of workers like **(co-ethnic category and name / non-co-ethnic category and name) who are low skilled and have not passed high school**. But trade will lower the wages of **other workers who are high-skilled and have passed high school.**

6. T6 (Skills + Co-ethnic Loses Treatment): "Suppose trade will increase the wages of **some workers who are low-skilled and have not passed high school**. But trade will lower the wages of workers like **(co-ethnic category and name / non-co-ethnic category and name) who are high-skilled and have passed high school**."

Following this vignette, respondents were asked the following question: "Based on this information, to what extent do you support or oppose increasing trade between India and other countries?" Their responses were coded on a five-point scale ranging from 1 ("Very much support") to 5 ("Very much oppose").[15]

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[14]As described below, all ethnic names presented to respondents were tailored to respondents' respective states of residence.

[15]An example of the T3 treatment presented to a respondent from the state of West Bengal could look as follows: "We want to hear your views on trade between India and other countries. Suppose trade will increase the wages of **workers like an upper caste called Sudeb Banerjee**. But trade will lower the wages of **other workers**." Meanwhile,

We now describe each of our treatments in further detail. The control condition (T1) neither gives respondents information about the skills-based distributive impact of trade, nor hints that members of particular ethnic groups will be impacted by trade, although it prompts individuals to consider the distributive impact of trade. Attitudes on this measure thus give a useful baseline against which the skills and ethnicity treatments can be measured.

In the second treatment (T2), we follow Rho and Tomz (2017, 2015) by giving respondents information about the skills and educational profiles of workers who are predicted to either benefit or lose economically from international trade. Based on the predictions of the HO model discussed earlier as well as the results of the observational data analysis, the skills treatment informs respondents that the returns from international trade to low-skilled workers in a labor abundant country such as India are predicted to be higher than the returns to high-skilled workers. The second treatment, along with the treatments in T5 and T6, provides this information to respondents. We created a variable "Skills Treatment" which took a value of 0 if the respondent was not given information about the skills-based distributive impact of trade and a value of 1 if respondents were given this information. High-skilled (low-skilled) respondents are anticipated to decrease (increase) their support for trade. Note that behavioral theories underlining the role of loss aversion predict that opposition to trade stemming from wage or job losses is more pronounced than support for trade based on potential future increases in income (Kahneman and Tversky 1979; Cobb and Kuklinski 1997; Hiscox 2006); our research design allows us to test if the effect of the skills treatment is symmetric for losers and winners.

The third (T3) and fourth (T4) treatments, respectively, provide information about the religion/caste profiles of groups of workers who stand to gain or lose from trade. We matched this information with the religion/caste profiles of our respondents in order to ascertain whether there was an ethnic match or mis-match. In T3, therefore, either a co-ethnic or a non-co-ethnic is predicted to gain economically from trade, whereas in T4 either a co-ethnic or a non-co-ethnic is

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an example of the T6 treatment presented to a respondent from the state of Haryana could thus look as follows: "We want to hear your views on trade between India and other countries. Suppose trade will increase the wages of **some workers who are low-skilled and have not passed high school**. But trade will lower the wages of **workers like an OBC called Dinesh Kumar Yadav who are high-skilled and have passed high school**."

predicted to be harmed materially from trade. To construct these treatments in the context of a nationally representative sample, we followed a rigorous protocol.[16] For each state in the country, we conducted qualitative research to ascertain the four or five most populous religious and caste groupings.[17] We then ascertained the most popular name within each state that could be associated with each of its populous religious and caste groupings.[18] At the beginning of the survey, respondents disclosed their state of residence; based on their responses, they were then presented with one of the popular religion/caste names that we had identified as belonging to the four or five largest groups residing in their states as another way measure a co-ethnic match

We matched respondents' self-reported "jatis" (sub-caste and sub-religion categories) to the religion/caste name that encountered in the experimental vignette. In particular, we followed the National Election Studies methodology of allowing respondents to select one out of approximately 1,000 jatis that are most salient in the country. This allowed us to create fine grained measures of ethnicity that directly matched the measures analyzed in the NES surveys. We then aggregated respondents' jatis up to broader caste and religious categories in order to create ethnicity matches and mis-matches.[19]

Based on a co-ethnic match or mismatch, we created a variable "Co-ethnic Benefits Treatment." This variable took a value of 1 if a respondent's co-ethnic stood to gain (in T3 and T5) or not lose (in T4 and T6) from trade, and 0 otherwise.[20] We predict that members of marginalized ethnic

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[16]We followed Thachil (2017) in providing respondents with both the religion/caste category of a worker, as well as the hypothetical worker's name, which was designed to convey a distinctive religion or caste. This approach helped mitigate social desirability bias, while also providing respondents with a concrete example of the type of individual who stood to gain or lose from trade. Prior work has mainly applied this approach to particular regional settings (Thachil 2017; Gaikwad and Nellis 2017). We implemented several additional steps, described below, to scale up this methodology to the nation-wide level.

[17]This step was essential since there is a considerable degree of variation in the demographic strength of various religious and caste groupings in different states across India. Some states only had four large religious and caste groupings, whereas others had five.

[18]See, also, Gaikwad, Nellis, and Wilkinson 2018. Typically, particular castes and religious groups are identified by different names in different states, and we wished to provide respondents with names with which they could clearly relate. These names were subjected to manipulation checks on MTurk to confirm that respondents from particular Indian states associated the names with the intended caste and religion categories.

[19]Thus, each respondent had a 20 to 25 percent chance of getting a religion/caste match.

[20]Specifically, this variable took a value of 1 if the respondent's co-ethnic benefited from trade and a value of 0 if a non-co-ethnic benefitted from trade. Similarly, this variable took value of 1 if the respondent's non-co-ethnic was harmed by trade and a value of 0 if a co-ethnic was harmed by trade. Therefore, this variable took a positive value if a respondent's co-ethnic achieved a better economic outcome vis-à-vis a non-co-ethnic. Respondents in treatment

communities that experience discrimination (i.e., SC, ST, and Muslim groups) will, on average, prefer co-ethnics benefitting materially from international trade compared to non-co-ethnics, in line with the theoretical framework developed earlier.

In our fifth (T5) and sixth (T6) treatments, we provide information about the distributive impact of trade in terms of both skills and ethnicity. Here, respondents learn that trade will differentially affect both high- and low-skilled individuals and members of co-ethnic and non-co-ethnic communities. Our predication is that ethnicity concerns will be especially pronounced for low-skilled, ethnically marginalized communities due to the overlap between skills- and ethnicity-related concerns for members of this group.

Both our skills-based treatment and co-ethnicity treatment achieved balance on a battery of pre-treatment covariates.[21] We include pre-treatment demographic controls in our results below, but all of our results are robust to the exclusion of these control variables.

## Experimental Results

We analyze our experimental treatments in a step-wise fashion, first by examining the independent effects of skills and ethnicity and then by studying the relationship between the two. Table 2 presents the effects of the skills treatment on average opposition to trade (higher values of the outcome variable indicate greater opposition). We begin by compartmentalizing our sample into high-skill (Column 1) and low-skill (Column 3) respondents.[22] High-skill respondents who learn about the distributive impact of trade are significantly less likely to support free trade compared to those that did not receive this information. In other words, economic groups that are poised to be harmed by international trade display marked protectionist sentiments, in line with their material interests. This result provides support for the predictions of the HO model as it is applied to

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conditions that did not receive ethnicity information were assigned a value of 0.

[21]Across a set of twelve comparisons, one variable reported a significant difference in means across treatment and control, as would have been expected by pure chance alone. We control for this variable in our experimental analysis.

[22]Our skills treatment informed respondents that high skilled individuals are those that have passed high school. We use the same criteria, based on respondents' self-reported educational achievements, to define whether respondents are high or low skilled. Our results are substantively the same when we compartmentalize respondents based on their incomes.

developing countries, a finding that is consistent with Jamal and Milner (2013).

By contrast, the skills treatment does not have a statistically significant impact on attitudes among low-skill respondents. The lack of a symmetric opposite treatment effect among the low-skilled can potentially be interpreted in light of existing studies that establish that individuals tend to weigh anticipated losses more than expected gains and are hence more sensitive to information that underlines material harm (Kahneman and Tversky 1979; Cobb and Kuklinski 1997). Specifically, in the domain of trade preference, Hiscox (2006) establishes that anti-trade information provokes opposition to trade among American survey respondents whereas pro-trade information does not congruently generate support for trade. We obtain a similar result in the Indian context. The lack of a corresponding treatment effect among respondents who stand to gain from trade suggests that material considerations are more pronounced determinants of trade attitudes for trade losers than for winners, although we acknowledge that other factors might also be at play.

Column 3 interacts the skill treatment with a binary variable indicating whether the respondent was high- or low-skill. The co-efficient on the interaction term indicates that high-skilled respondents react differently to the skills treatment than low-skilled respondents, further corroborating the role of material determinants in shaping trade attitudes among respondents in our sample. Overall, our results indicate that groups that stand to lose from trade evince protectionist attitudes when informed about the distributive impact of trade, and develop preferences about trade that are different from those who stand to benefit from trade.

Next, we set out to examine the impact of the co-ethnic benefits treatment on average respondent favorability toward international trade. Table 3 presents the effect of this treatment, which takes a positive value if a respondent's co-ethnic achieved a better economic outcome via-à-vis a non-co-ethnic. Columns 1 and 2 partition our sample into UC/OBC and SC/ST/Muslim respondents, respectively, in order to examine whether and how co-ethnic favorability operates for individuals belonging to both sets of communities. A striking pattern emerges. Individuals in historically marginalized communities (SC/ST/Muslims) become significantly more likely to support trade when they are informed that their co-ethnics stand to benefit from trade, all else equal. But

Tab. 2: Effect of Skills Treatment on Opposition to Trade

| | High-Skill | Low-Skill | Interaction with Respondent Skill |
|---|---|---|---|
| | (1) | (2) | (3) |
| Skills Treatment | 0.33*** | -0.01 | -0.01 |
| | (0.08) | (0.06) | (0.06) |
| Respondent Skill | | | -0.14* |
| | | | (0.07) |
| Skill Treatment x | | | 0.34*** |
| Respondent Skill | | | (0.10) |
| | | | |
| Constant (control mean) | 1.91 | 2.15 | 2.11 |
| N | 1,493 | 2,681 | 4,174 |
| Controls | Y | Y | Y |

Robust standard errors in parentheses. * p<.10, ** p<.05, *** p<.01.

among individuals belonging to the privileged ethnic groups (UC/OBC), there is no effect of co-ethnic favorability on trade attitudes. These individuals are neither more nor less likely to support trade when they learn that trade will benefit co-ethnics. Column 3 interacts the treatment with a dummy variable which captures whether the respondent is a member of the SC, ST, or Muslim communities. We see that members of marginalized groups evidence a significantly different reaction to the co-ethnic benefits treatment compared to members of privileged ethnic groups.

This evidence supports our core theoretical conjectures. Members belonging to marginalized ethnic groups attach importance to group gains/losses stemming from the global economy. As discussed earlier, international trade provides opportunities for occupational mobility that remain out of reach for these groups in domestic labor markets, where they face systematic forms of discrimination and remain segmented in particular types of occupations. Given these constraints, economic opportunities that are predicted to benefit co-ethnics are likely interpreted by respondents as opportunities that benefit their group as a whole. Our contention is that members of marginalized communities develop group-wise solidarity when formulating attitudes on trade because policies that benefit the group are considered to be synonymous with policies that benefit individuals. By contrast, the fortunes of members of privileged ethnic communities, who do not face constraints

Tab. 3: Effect of Co-ethnic Benefits Treatment on Opposition to Trade

| | UC/OBC | SC/ST/MUSLIM | Interaction with SC/ST/Muslim Dummy |
|---|---|---|---|
| | (1) | (2) | (3) |
| Co-ethnic Benefits Treatment | -0.01 | -0.30*** | -0.01 |
| | (0.07) | (0.10) | (0.07) |
| marginalized Dummy | | | 0.19*** |
| | | | (0.07) |
| Co-ethnic Benefits Treatment x marginalized Dummy | | | -0.29** |
| | | | (0.12) |
| | | | |
| Constant (control mean) | 2.08 | 2.20 | 2.06 |
| N | 2,745 | 1,122 | 3,867 |
| Controls | Y | Y | Y |

Robust standard errors in parentheses. * p<.10, ** p<.05, *** p<.01.

within domestic labor markets, are not anticipated to rise and fall with the fortunes of their co-ethnics, so far as trade is concerned. Indeed, given that individuals in these groups are distributed along a spectrum of skills, they stand to benefit differentially from trade. In such a context, a tariff policy that benefits a co-ethnic is not obviously the policy that will reap dividends for the respondent in question. The lack of a co-ethnicity treatment effect for privileged ethnic groups in our sample corroborates this claim.[23]

We further investigate the impact of the co-ethnic benefits treatment across individuals of different skills profiles in each ethnic group (see Table 4). Amongst UC/OBC ethnic groups, the co-ethnics benefits treatment has no effect either among the high skilled (Column 1) or among the low skilled (Column 2), and both groups are effectively indistinguishable from each other in

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[23]As noted earlier, for ease of interpretation, we constructed the variable "Co-ethnic Benefits Treatment" as a dummy variable that takes a value of 1 if a co-ethnic benefits, and 0 if either a non-co-ethnic benefits or if the respondent is assigned to the control group. It might be instructive to distinguish between the latter two categories in our analyses. In Appendix Table 11, we compare respondents in the control condition to respondents who received information about a co-ethnic benefitting as well as those who received information about a non-co-ethnic benefitting. The results further elucidate the mechanisms in our theoretical argument. Among marginalized groups, a non-co-ethnic benefitting from trade generates opposition to trade, whereas a co-ethnic benefitting from trade is associated with an uptick in support. But respondents belonging to privileged groups treat both non-co-ethnics and co-ethnics similarly, evidencing protectionist sentiments when both types of workers are predicted to benefit from trade. As Column 3 in this Table shows, the effect of the co-ethnic benefits treatment relative to the control is significantly different for marginalized groups as compared to privileged groups.

Tab. 4: Effect of Co-ethnic Benefits Treatment on Opposition to Trade, by Social Group and Income

| | UC/OBC High-Skill | UC/OBC Low-Skill | UC/OBC | SC/ST/Muslim High-Skill | SC/ST/Muslim Low-Skill | SC/ST/Muslim |
| --- | --- | --- | --- | --- | --- | --- |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Co-ethnic Benefits Treatment | -0.04 | 0.01 | 0.13 | -0.31* | -0.30** | -0.30** |
| | (0.11) | (0.09) | (0.08) | (0.19) | (0.12) | (0.12) |
| Respondent Skill | | | 0.07 | | | 0.08 |
| | | | (0.08) | | | (0.13) |
| Co-ethnic Benefits Treatment x | | | 0.06 | | | -0.01 |
| Respondent Skill | | | (0.14) | | | (0.22) |
| | | | | | | |
| Constant (control mean) | 2.03 | 2.12 | 2.06 | 2.02 | 2.25 | 2.18 |
| N | 1,056 | 1,689 | 2,745 | 317 | 805 | 1,122 |
| Robust standard errors in parentheses. * p<.10, ** p<.05, *** p<.01. | | | | | | |

their responses to the experimental treatment (Column 3). But we uncover evidence of a consistent treatment effect among members of disadvantaged communities. Both high skilled (Column 4) and low skilled (Column 5) individuals grow supportive of trade when informed that a co-ethnic is slated to benefit from international economic integration. The lack of a significant interaction term in Column 6 indicates that high- and low-skilled individuals in this group respond similarly when informed that trade will improve the fortunes of their co-ethnics relative to non-co-ethnics.[24]

We now turn to examining the offsetting/reinforcing nature of skills and the co-ethnicity for members of different ethnic groups. Table 5 interacts the experimental skills treatment and the co-ethnic benefits treatment for members of privileged groups (Column 1) and members of marginalized communities (Column 2). We see that skills and ethnicity do not have an interactive effect for members of privileged groups. However, a different pattern is evident among members of disadvantaged communities, for whom the interaction term is statistically significant. When these respondents are not informed about the skills-based distributive impact of trade (i.e., the skills treatment has a value of zero), the treatment effect of the co-ethnic benefits treatment is not statis-

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[24]Table 12 in the Appendix focuses on the skills treatment. Previously, we had documented how the skills treatment had a strong effect among high-skilled respondents but not among low-skilled respondents. We now show that the effect of the skills treatment is concentrated among high-skilled UC/OBC respondents, and that the treatment effect is significantly different across high- and low-skilled respondents in these groups. By contrast, the skills treatment does not have an effect among either high- or low-skilled SC/ST/Muslim respondents (Columns 4–6).

Tab. 5: Interaction of Co-ethnic Benefits Treatment and Skills Treatment, by Social Group

|  | UC/OBC | SC/ST/Muslim |
|---|---|---|
|  | (1) | (2) |
| Co-ethnic Benefits Treatment | -0.09 | -0.12 |
|  | (0.09) | (0.15) |
| Skills Treatment | 0.10 | 0.16 |
|  | (0.08) | (0.12) |
| Co-ethnic Benefits Treatment x | 0.17 | -0.37* |
| Skills Treatment | (0.13) | (0.20) |
|  |  |  |
| Constant (control mean) | 2.03 | 2.12 |
| N | 2,745 | 1,122 |
| Controls | Y | Y |

Robust standard errors in parentheses. * p<.10, ** p<.05, *** p<.01.

tically significant. But when prompted to consider the skills based impact of trade, the co-ethnic benefits treatment has a large, qualitatively meaningful, and statistically significant effect.[25]

To probe our results further, we conduct additional analyses. We purposely designed out experimental manipulations to be able to disentangle the independent and joint effects of ethnicity and skills. What is the marginal effect of providing ethnicity-based information about trade to respondents who already have skills-based information about the distributive consequences of trade? Comparing T2 (which contains only the skills treatment) with T5 and T6 (which contain both the skills and ethnicity treatments) allows us to answer this question.

Table 6 provides estimates of the effect of the co-ethnic benefits treatment among members of privileged groups (Column 1) and marginalized groups (Column 2). The coefficients in Table 6 can be compared with those reported in Table 3. Like before, we see that the co-ethnicity treatment has no effect among the privileged social groups. Among marginalized groups, however, the treatment effect is significant, precisely estimated, and much larger in magnitude ($\beta$=-0.49; $p$=0.00) than

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[25]The interaction effect for marginalized groups is statistically different compared to the interaction effect for privileged groups. When we run a triple interaction model, interacting the skills treatment, co-ethnic benefits treatment, and a dummy for marginalized groups, the co-efficient on the triple interaction term is statistically significant ($\beta$=-0.54; $p$=0.028). In other words, the co-ethnic affinity effect is prevalent among members of disadvantaged groups when they are informed about the economic consequences of trade.

Tab. 6: Marginal Effect of Co-ethnic Benefits Treatment

| | UC/OBC | SC/ST/Muslim | Interaction with SC/ST/Muslim Dummy |
|---|---|---|---|
| | (1) | (2) | (3) |
| Co-ethnic Benefits Treatment | 0.08 | -0.49*** | 0.08 |
| | (0.10) | (0.14) | (0.10) |
| SC/ST/Muslim Dummy | | | 0.22** |
| | | | (0.10) |
| Co-ethnic Benefits Treatment x SC/ST/Muslim | | | -0.58*** |
| Constant (control mean) | 1.98 | 2.27 | 2.01 |
| N | 1,339 | 550 | 1,889 |
| Controls | Y | Y | Y |

Robust standard errors in parentheses. * p<.10, ** p<.05, *** p<.01.

the treatment effect in Table 3 ($\beta$=-0.30; $p$=0.00). When we interact the co-ethnicity treatment with a dummy for marginalized groups (Column 3), we see that the coefficient on the interaction term is almost twice the size as the coefficient reported in Table 3. Put differently, for members of subaltern communities, co-ethnicity becomes a much stronger predictor of preferences once provided alongside information about the skills based distributive impact of trade. This is in line with our theoretical argument about the reinforcing role of skills and ethnicity for members of disadvantaged communities.[26]

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[26]We also investigate the marginal effect of providing information about the skills-based distributive impact of trade to respondents who already have information about the co-ethnicity based benefits of trade. Table 13 in the Appendix presents the results of the skills treatment when comparing T3 and T4 (which contain only the co-ethnicity benefits treatment) with T5 and T6 (which contain both the co-ethnicity benefits and skills treatments). Column 1 focuses on the results for privileged groups, whereas Column 2 presents the findings for disadvantaged minority groups. The estimates in Table 13 can be compared with the estimates reported in Columns 3 and 6 in Table 4. For privileged individuals, the coefficient on the term interacting the skills treatment with the respondents' own skills is similar in magnitude ($\beta$=0.30; $p$=0.06) to that reported in Table 4 ($\beta$=0.38; $p$=0.03). For disadvantaged minority groups, a different pattern emerges. Table 4 found no evidence of an interactive effect between the skills treatment and the skills profiles of marginalized group respondents. But as Table 13 finds, once members of this group are provided information about the ethnicity based redistributive impact of trade, the marginal effect of the skills treatment is large and statistically significant. Low skilled respondents now react to the skills treatment by becoming significantly more favorable to trade, while high skilled respondents react to the skills treatment by becoming significantly more opposed to trade. The coefficient on the term interacting the skills treatment with the respondents' own skills is large in magnitude and statistically significant ($\beta$=0.58; $p$=0.03) compared to the statistically insignificant interaction effect reported in Table 4. In other words, for members of disadvantaged groups, the skills treatment has a reinforcing effect only when combined with the co-ethnic benefits treatment.

## Discussion

We have provided evidence from three large nationally representative post-election surveys of voters in India and as well as an original survey experiment implemented on a nationally representative sample of Indian citizens to probe the role of economic and ethnic determinants in shaping individual attitudes toward trade policy. Our findings show that in ranked ethnic systems the distributional implications of trade policies are not uniformly salient to voters across ethnic groups. Voters belonging to dominant religion and caste groupings do not display group-wise ethnic solidarity when developing preferences on trade policy. Instead, these citizens respond to trade by paying close attention to the skills-based redistributive impact of international economic integration.

By contrast, individuals belonging to historically marginalized ethnic groups are more likely to favor permissive trade policies. They attach importance to co-ethnicity when evaluating the impact of international trade, and are much more likely to view trade favorably when informed about their co-ethnics benefitting from the global economy. Our contention is that members of disadvantaged groups—who face systematic hurdles to economic advancement in domestic labor markets, and who are disproportionately employed in low-skilled occupations—develop group wise solidarity when considering the impact of trade. Because trade has a reinforcing ethnic and economic effect for members of this group, they view policies that benefit co-ethnics as coterminous with policies that advance their own economic well being. This finding on the divergence between marginalized and privileged ethnic groups on the role of ethnicity holds across individual and state level analyses and across observational and experimental data. With this finding, we provide a key insight into how trade preferences develop in the context of ranked, multi-ethnic contexts.

We also find that low-skilled workers are more likely to favor liberalization than high-skilled workers. This persistent result holds whether we analyze skills in terms of education or income. It holds at the individual-level observational and experimental data, and at the state-level, where we find that average support for free trade is higher in states with greater proportions of low-skilled workers. These results gel with political economy theories about individuals' preferences over trade policy. Trade policy creates winners and losers. Individuals in developing countries stand

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to reap wage benefits if they are employed in sectors that will benefit from open trade. Because developing countries have an advantage in producing labor-intensive goods, low-skilled individuals are expected to gain from, and support, open trade. This is indeed what we find.

Many scholars have argued that trade policy in India has primarily been determined by elites—bureaucrats, technocrats, officials from international organizations, and business leaders and industry associations. These accounts would suggest that—if anything—it is coalitions of the relatively rich and educated who spearhead trade liberalization. Our finding of the opposite empirical pattern among voter preferences in India thus promises to open up a new line of research on the electoral bases of trade and redistributive economic conflict in emerging economies such as India. While our research design is not equipped to answer the question of whether voter preferences have a meaningful impact on trade policy outcomes, it is worth noting that our findings are consistent with an important argument in the scholarship that ties the preferences of low-skilled citizens in developing democracies to moves toward trade liberalization (Milner and Kubota 2005).

Our findings raise the importance of considering how identity-related factors such as ethnicity, gender, or language, might confound the relationship we expect between economic interests and trade policy preferences. Our results suggest that studying how race and economic skills interact in other ranked ethnic contexts like South Africa and the United States might present fruitful avenues for future research. Importantly, they also raise the possibility that studies that have not found evidence of the theoretically predicted relationship between skills and trade support might benefit from considering ethnicity as a factor mediating the relationship between material interests and trade preferences.

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# Appendix

## NES Results

## Modeling "No Opinion"

Tab. 7: Individual-Level Relationship Between Support for Trade and Measures of Ethnicity

| | (1) | (2) | (3) | (4) | (5) | (6) High Educ | (7) Low Educ |
|---|---|---|---|---|---|---|---|
| **DV=1 or "No Opinion/Don't know"** | | | | | | | |
| SC/ST/Muslim | 0.413*** | | | 0.246*** | 0.331*** | 0.232*** | 0.336*** |
| | (0.020) | | | (0.021) | (0.022) | (0.024) | (0.048) |
| Education | | -1.353*** | | -1.312*** | | | |
| | | (0.025) | | (0.025) | | | |
| Income | | | -0.703*** | | -0.663*** | | |
| | | | (0.022) | | (0.022) | | |
| **DV=2 or "Supportive of Trade"** | | | | | | | |
| SC/ST/Muslim | 0.046** | | | 0.042** | 0.051** | 0.031 | 0.051 |
| | (0.020) | | | (0.021) | (0.022) | (0.026) | (0.034) |
| Education | | -0.024 | | -0.018 | | | |
| | | (0.020) | | (0.020) | | | |
| Income | | | -0.057*** | | -0.051** | | |
| | | | (0.021) | | (0.021) | | |
| N | 69609 | 69665 | 60562 | 69609 | 60506 | 46599 | 23010 |

– Models are estimated using multinomial logit, state and year fixed effects with robust standard errors.
– Models control for age and gender of respondent and a dummy for the North East states.
– Standard errors in parentheses: * p<.10, ** p<.05, *** p<.01.

# Expanded Ethnic Category

Tab. 8: OLOGIT- Individual-Level Relationship Between Support for Trade and Measures of Ethnicity

|  | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
|  |  |  |  |  | High Educ | Low Educ |
| Backward Caste | 0.032 | 0.010 | 0.007 | 0.011 | 0.020 | -0.001 |
|  | (0.021) | (0.021) | (0.023) | (0.021) | (0.035) | (0.027) |
| Scheduled Caste | 0.100*** | 0.071*** | 0.084*** | 0.067*** | 0.084* | 0.060** |
|  | (0.024) | (0.024) | (0.026) | (0.025) | (0.046) | (0.030) |
| Schedules Tribe | 0.042 | 0.008 | 0.016 | 0.001 | -0.075 | 0.023 |
|  | (0.027) | (0.028) | (0.029) | (0.028) | (0.056) | (0.034) |
| Muslim | 0.116*** | 0.090*** | 0.102*** | 0.097*** | 0.171*** | 0.042 |
|  | (0.027) | (0.027) | (0.030) | (0.027) | (0.049) | (0.034) |
| Others | 0.054 | 0.038 | 0.049 | 0.040 | 0.054 | 0.023 |
|  | (0.034) | (0.034) | (0.036) | (0.034) | (0.053) | (0.045) |
| Education |  | -0.113*** |  |  |  |  |
|  |  | (0.017) |  |  |  |  |
| Income |  |  | -0.084*** |  |  |  |
|  |  |  | (0.016) |  |  |  |
| Wealth |  |  |  | -0.001*** |  |  |
|  |  |  |  | (0.000) |  |  |
| N | 69609 | 69609 | 60506 | 69602 | 23010 | 46599 |

– Models are estimated using ordered logit, state and year fixed effects with robust standard errors.
– Models control for age and gender of respondent and a dummy for the North East states.
– Standard errors in parentheses: * p<.10, ** p<.05, *** p<.01.

Tab. 9: MLOGIT- Individual-Level Relationship Between Support for Trade and Measures of Ethnicity

| | (1) | (2) | (3) | (4) | (5) High Educ | (6) Low Educ |
|---|---|---|---|---|---|---|
| **DV=1 or "No Opinion/Don?t know"** | | | | | | |
| Backward Caste | 0.429*** | 0.200*** | 0.328*** | 0.179*** | 0.182*** | 0.198*** |
| | (0.028) | (0.029) | (0.031) | (0.029) | (0.059) | (0.035) |
| Scheduled Caste | 0.680*** | 0.388*** | 0.538*** | 0.297*** | 0.477*** | 0.366*** |
| | (0.033) | (0.034) | (0.037) | (0.034) | (0.074) | (0.040) |
| Scheduled Tribe | 0.872*** | 0.528*** | 0.679*** | 0.391*** | 0.570*** | 0.544*** |
| | (0.037) | (0.038) | (0.041) | (0.039) | (0.088) | (0.044) |
| Muslim | 0.483*** | 0.215*** | 0.411*** | 0.264*** | 0.319*** | 0.178*** |
| | (0.037) | (0.038) | (0.041) | (0.038) | (0.080) | (0.045) |
| Other | 0.381*** | 0.222*** | 0.328*** | 0.230*** | 0.297*** | 0.194*** |
| | (0.046) | (0.047) | (0.050) | (0.047) | (0.086) | (0.058) |
| Education | | -1.280*** | | | | |
| | | (0.025) | | | | |
| Income | | | -0.626*** | | | |
| | | | (0.022) | | | |
| Wealth | | | | -0.017*** | | |
| | | | | (0.000) | | |
| **DV=2 or Supportive of Trade** | | | | | | |
| Backward Caste | 0.002 | -0.002 | -0.012 | 0.003 | 0.014 | -0.021 |
| | (0.027) | (0.027) | (0.028) | (0.027) | (0.039) | (0.038) |
| Scheduled Caste | 0.073** | 0.069** | 0.083** | 0.074** | 0.073 | 0.050 |
| | (0.032) | (0.033) | (0.035) | (0.033) | (0.053) | (0.043) |
| Scheduled Tribe | -0.050 | -0.056 | -0.060 | -0.050 | -0.131** | -0.041 |
| | (0.038) | (0.038) | (0.040) | (0.039) | (0.067) | (0.049) |
| Muslim | 0.106*** | 0.099*** | 0.100*** | 0.104*** | 0.185*** | 0.037 |
| | (0.036) | (0.036) | (0.038) | (0.036) | (0.056) | (0.048) |
| Other | 0.032 | 0.030 | 0.034 | 0.033 | 0.040 | 0.024 |
| | (0.043) | (0.043) | (0.045) | (0.043) | (0.060) | (0.062) |
| Education | | -0.020 | | | | |
| | | (0.021) | | | | |
| Income | | | -0.057*** | | | |
| | | | (0.021) | | | |
| Wealth | | | | -0.000 | | |
| | | | | (0.000) | | |
| N | 69609 | 69609 | 60506 | 69602 | 23010 | 46599 |

– Models are estimated using multinomial logit, state and year fixed effects with robust standard errors.
– Models control for age and gender of respondent and a dummy for the North East states.
– Standard errors in parentheses: * p<.10, ** p<.05, *** p<.01.

## State-level Analysis

We created the following state-level measures for the ethnicity and skills variables:

- <u>ELF</u>: This measure calculates the ethnolinguistic fractionalization score using the ethnic groups defined for the variable *Ranked Ethnicity* in each state.

- <u>Percent SC/ ST/Muslim</u>: This variable measures the percentage of Scheduled Castes, Scheduled Tribes and Muslims in the state.

- <u>Percent High-Skill</u>: This variable (which we term, *Percent High-Skill*) captures the percentage of a state's workforce that is employed in high-skilled industries.[27]

- <u>Percent Agriculture</u>: This variable captures the percentage of the workforce reporting to be employed in agriculture, forestry, and fishing, and related activities.[28]

In column 1 of table 6 we regress state-level measure of trade support on ELF while controlling for state-level Percent Skilled Workforce, GDP, Gini, year and state fixed effects. We should expect a robust relationship between ELF and the support for trade if we believe the mechanism through which ethnic politics operates is the numerical competition between groups in the state. We find no significant relationship between ELF and trade support. In column 2 we investigate the relationship between the percentage of SC/ST/Muslim in the state to probe whether trade support is contingent on specific types of discriminated ethnic groups. We find that greater proportion of SC/ST/Muslims in a state is associated with higher levels of support for trade in the state and the coefficient on this variable is significant, similar to the individual-level findings. In Columns 1 and 2 we find a robust and negative relationship between the percent of high-skilled workers in a state and support for trade. In column 3 we substitute the Percent High Skill with another measure of state-level economic variation – Percent Agriculture – which is a proxy for low skilled labor. The coefficient on the Percent SC/ST/Muslim remains positive and significant in this model. Taken together these provide further corroborating evidence to the claims that ethnic groups that have historically been marginalized are more supportive of trade, a finding similar to the individual-level analysis presented earlier.

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[27]Low-skilled industries reflected industries such as agriculture, forestry, and fishing, as well as low-skills manufacturing industries. High-skilled industries reflected industries such as chemicals, pharmaceuticals, and automobiles. Our results are robust to different classifications of industries into high- and low-skilled industries.

[28]We restricted the analysis to NIC codes 01—05.

Tab. 10: State-Level OLS regressions of Support for Trade on Measures of Ethnicity

|  | (1) | (2) | (3) |
|---|---|---|---|
| ELF | -0.014 | 0.092 | 0.128 |
|  | (0.086) | (0.088) | (0.085) |
| Percent SC/ST/Muslim |  | 0.198** | 0.214*** |
|  |  | (0.081) | (0.078) |
| Percent High Skill | -0.504** | -0.393** |  |
|  | (0.194) | (0.196) |  |
| Percent Agriculture |  |  | 0.298** |
|  |  |  | (0.140) |
| State GDP | 0.000 | 0.000 | -0.000 |
|  | (0.000) | (0.000) | (0.000) |
| State Gini Index | -0.648** | -0.746** | -0.747** |
|  | (0.318) | (0.326) | (0.320) |
| N-E Dummy | 0.018 | -0.028 | -0.055 |
|  | (0.047) | (0.046) | (0.047) |
| Constant | 1.310*** | 1.173*** | 0.861*** |
|  | (0.195) | (0.172) | (0.154) |
| Adj. R-squared | 0.072 | 0.103 | 0.100 |
| N | 68 | 68 | 68 |

All models include year fixed effects with robust standard errors.
Standard errors in parentheses. * p<.10, ** p<.05, *** p<.01.

# Experimental Results

Tab. 11: Effect of Co-ethnic Benefits Treatment on Opposition to Trade

|  | privileged | marginalized | Interaction with marginalized Dummy |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
| *Co-ethnic Benefits Control* |  |  |  |
| Non-Co-ethnic Benefits Treatment | 0.32*** | 0.22* | 0.32*** |
|  | (0.08) | (0.12) | (0.08) |
| Co-ethnic Benefits Treatment | 0.15* | -0.20* | 0.15** |
|  | (0.08) | (0.12) | (0.10) |
| marginalized Dummy |  |  | 0.25** |
|  |  |  | (0.10) |
| marginalized Dummy |  |  | -0.10 |
| x Non-Co-ethnic Benefits Treatment |  |  | (0.14) |
| x Co-ethnic Benefits Treatment |  |  | -0.35** |
|  |  |  | (0.14) |
|  |  |  |  |
| Constant (control mean) | 1.93 | 2.11 | 1.91 |
| N | 2,745 | 1,122 | 3,867 |
| Controls | Y | Y | Y |

Robust standard errors in parentheses. * p<.10, ** p<.05, *** p<.01.

Tab. 12: Effect of Skills Treatment on Opposition to Trade, by Social Group and Income

| | UC/OBC High-Skill | UC/OBC Low-Skill | UC/OBC | SC/ST/Muslim High-Skill | SC/ST/Muslim Low-Skill | SC/ST/Muslim |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Skills Treatment | 0.51*** | 0.13 | 0.13 | 0.44 | 0.02 | 0.02 |
| | (0.14) | (0.11) | (0.11) | (0.27) | (0.17) | (0.17) |
| Respondent Skill | | | -0.18 | | | -0.11 |
| | | | (0.15) | | | (0.28) |
| Skill Treatment x | | | 0.38** | | | 0.43 |
| Respondent Skill | | | (0.18) | | | (0.32) |
| | | | | | | |
| Constant (control mean) | 1.61 | 1.84 | 1.81 | 1.79 | 2.04 | 2.00 |
| N | 697 | 1,120 | 1,817 | 205 | 535 | 740 |

Robust standard errors in parentheses. * p<.10, ** p<.05, *** p<.01.

Tab. 13: Interaction of Co-ethnic Benefits Treatment and Skills Treatment, by Social Group

|  | UC/OBC | SC/ST/Muslim |
|---|---|---|
|  | (1) | (2) |
| Skills Treatment | 0.08 | -0.26* |
|  | (0.10) | (0.15) |
| Respondent Skills | -0.05 | -0.25 |
|  | (0.11) | (0.18) |
| Skills Treatment x | 0.30* | 0.58** |
| Respondent Skills | (0.16) | (0.26) |
|  |  |  |
| Constant (control mean) | 2.29 | 2.23 |
| N | 1,826 | 729 |
| Controls | Y | Y |

Robust standard errors in parentheses. * p<.10, ** p<.05, *** p<.01.