

## Measuring ethnic preferences: New experimental evidence

Lars Ivar Oppedal Berge, Kjetil Bjorvatn, Simon Galle, Edward Miguel, Daniel N. Posner, Bertil Tungodden, Kelly Zhang 11 February 2016

*Ethnic divisions have been shown to adversely affect economic performance and political stability, particularly in Africa. However, the underlying mechanisms remain poorly understood. Using experimental data from Kenya, this column studies whether one potential mechanism – co-ethnic bias – affects altruism. Strikingly, most tests yield no evidence of co-ethnic bias, suggesting that other mechanisms must be driving the negative association between ethnic diversity and economic and political outcomes in Africa.*

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Ethnic divisions have been shown to adversely affect economic performance and political stability, especially in Africa (Easterly and Levine 1997, Cederman *et al.* 2007 and 2011). The underlying mechanisms that have played a particularly central role in theory, and that are at the root of conventional wisdom about why ethnicity matters, are that individuals exhibit greater altruism towards co-ethnics, co-ethnic favouritism, or antipathy towards others (Vigdor 2002).<sup>1</sup>

We study the degree of co-ethnic bias in preferences in Nairobi, Kenya – a setting with well-documented and politically salient ethnic divisions – utilising lab experiments to isolate the role of ethnic preferences from other contextual factors. In particular, we use the term “ethnic preferences” to refer to the different levels of other-regardingness and cooperation in within-group versus cross-group interactions.<sup>2</sup>

### Identifying ethnic preferences

We employ a rich research design that involves multiple rounds of experimental data with a large sample of over 1,300 subjects, including one round immediately prior to a national election, when there is reason to believe that co-ethnic bias should be particularly strong (Snyder 2000, Eifert *et al.* 2010). We supplement this variation in real-world timing with within-lab priming designed to increase the situational salience of particular issues and dimensions of social identity. We measure preferences using both standard experimental games (e.g. dictator and public-good games) and a more novel lab activity (the ‘choose your dictator’ game, which captures expectations about the altruism of others). As a further check, we employ implicit association tests (IATs) to capture underlying preferences free from potential experimenter demand effects.<sup>3</sup>

### Precisely estimated null effects

Given the widely held views on both the strength and the negative implications of ethnic preferences, our results are as striking as they are optimistic. Most of our tests yield no evidence of co-ethnic bias, while a few show evidence of minimal levels of bias. This holds across multiple experimental measures and well-powered statistical tests, including the IAT. Figure 1 summarises the results from the dictator game and the public-good game. In both cases, the average level of



**Lars Ivar Oppedal Berge**

Associate Professor at the Dept Accounting, Auditing and L NHH Norwegian School of Economics; CMI Chr. Michels Insti



**Kjetil Bjorvatn**

Professor at the Department Economics, NHH Norwegian School of Econom



**Simon Galle**

PhD Candidate in the Dept Economics, University California, Berke



**Edward Miguel**

Oxfam Professor in Environment and Resource Economics, University of California, Berke

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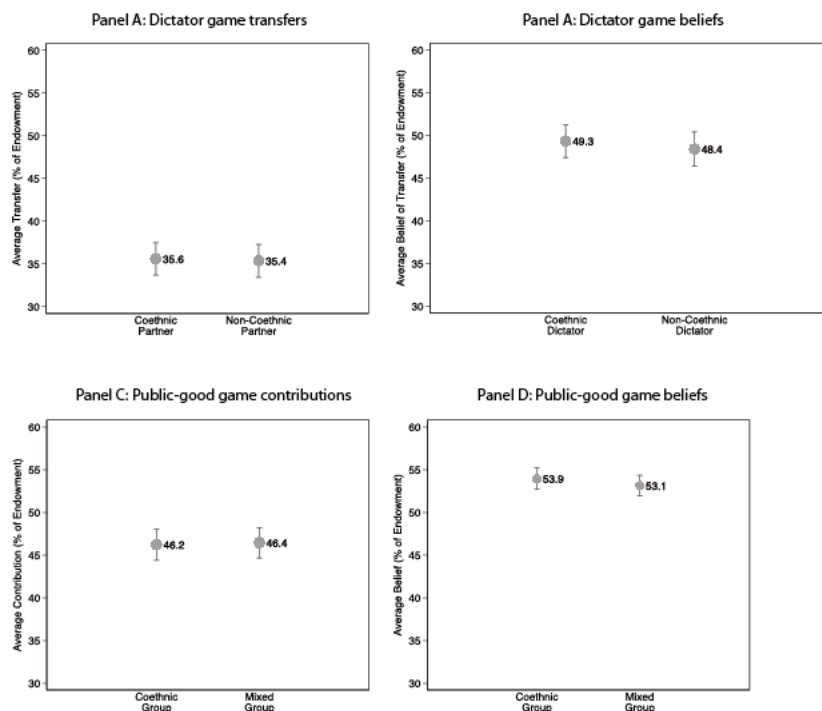
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contribution to co-ethnic and non-co-ethnic partners is nearly identical, within one percentage point – 35.6% versus 35.4% in the dictator game (Panel A), and 46.2% versus 46.4% in the public-good game (Panel C).<sup>4</sup> Expected contributions of other players in the dictator game and the public-good game are similarly unaffected by those players' presumed ethnic backgrounds, at 49.3% to 48.4% (Panel B) and 53.9% to 53.1% (Panel D), respectively. None of these differences is statistically distinguishable from zero. In the IAT, the average bias against members of other ethnic groups is just 0.079 standard deviation units, roughly one sixth of the average bias demonstrated by US whites against blacks in similar tests (Nosek *et al.* 2007).

**Figure 1.** Coethnic bias in the Dictator game and Public-good game



*Notes:* Sample averages and 95% confidence intervals for Dictator game contributions in profiled games for Coethnic vs. Non-coethnic Transfers (Panel A), beliefs about Dictator game contributions from the profiled Choose-your-dictator game (Panel B), for Public-good game contributions in profiled games for Coethnic vs. Mixed Groups (Panel C), and for Public-good game beliefs about others' contributions (Panel D). The Dictator game data in Panels A and B is from the Election round (January-February 2013), the only time the complete profiled game data was collected. The Public-good game data is pooled from both the Non-election round (July/August 2012) and the Election round, since the complete profiled game data was collected in both. The p-value of Coethnic = Non-coethnic for Panel A is 0.87. The p-value of Coethnic = Non-coethnic for Panel B is 0.51. The p-value of Coethnic = Mixed for Panel C is 0.86. The p-value of Coethnic = Mixed for Panel D is 0.36. In the Dictator game, participants had an endowment of 50 Kenya Shillings, and in the Public-good game participants were endowed with 60 Kenya Shillings.

These precisely estimated null effects are robust – they hold among all of the demographic subgroups we pre-specified (including by gender, ethnic group, and education); in the experimental round close in time to national elections, as much as in the round conducted in the previous year; and across a range of priming conditions, including primes for ethnic identity, political competition, and national identity.<sup>5</sup>

## Why no ethnic bias?

It is a testament to the broad acceptance of the ethnic preference mechanism that many readers will find these results surprising — especially given our Kenyan research site, which is commonly associated with ethnic rivalry and which witnessed ethnic violence in the aftermath of the disputed national elections that led to more than a thousand deaths and the displacement of hundreds of people. Moreover, modernisation theorists have argued that African urban centers like Nairobi are especially prone to ethnic antagonisms due to the combination of



**Daniel N. Posn**

James S. Coleman Professor  
International Development, UC



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social heterogeneity and the heightened competition for jobs and resources (Melson and Wolpe 1970, Bates 1983). So with respect to both history and theory, our findings are unexpected.

It is worth being absolutely clear that we are not downplaying the role of ethnicity – ethnic divisions remain a prominent feature of contemporary Kenyan society. Our findings simply suggest that they may be driven by mechanisms other than ethnic preferences. Indeed, notwithstanding the conventional wisdom, there is actually more empirical evidence in favour of other channels than there is for ethnic preference explanations, at least in African cases. Miguel and Gugerty (2005) argue that all ethnic groups in western Kenya have strong preferences for funding local schools, but that diverse communities have far worse voluntary local fundraising outcomes due to their inability to mobilise to sanction free-riders. Building on the seminal work of Barkan and Chege (1989), Burgess *et al.* (2015) document large-scale distortions in public roads investment in Kenya favouring the president's ethnic group. In their model, this is an equilibrium choice due to the instrumental political benefits for rulers, but it does not rely on any co-ethnic bias (although they cannot rule out that such bias is playing some role). Habyarimana *et al.* (2007) provide further evidence from lab experiments in urban Uganda that ethnic preference explanations are less powerful than accounts emphasising the different norms governing co-ethnic and non-co-ethnic interactions, and the role of within-group sanctions to enforce them.

At the same time, several other studies find mixed evidence on co-ethnic preferences in African settings.<sup>6</sup> In particular, our findings are in tension with the results of the recent study by Hjort (2014) of ethnic bias that also uses Kenyan data. Hjort takes advantage of the random assignment of workers to teams on a flower farm to study whether within-team productivity is lower when those teams are ethnically diverse. He finds that it is, and suggests that this is due to discrimination by team members on behalf of coethnics. Hjort shows that this diversity effect is magnified after the 2007-08 election violence.

There are several possible ways to account for the differences between Hjort's findings and our own. The most immediate is that, though attributed to ethnic preferences, the negative diversity effects in Hjort's study may in fact be caused in part by other mechanisms. For example, the fact that Hjort shows that modifications in contractual details—namely, moving to group-based pay on work teams—mitigates much of the negative effect suggests that institutional factors may be critical. Hjort's design also makes it impossible to rule out the possibility that shared ethnicity could provide a technology that facilitates team production. One of the strengths of our laboratory approach is that it allows us to focus exclusively on the preferences mechanism and to rule out alternative channels.

## Concluding remarks

We find little evidence of ethnically biased behaviour or preferences, and these findings challenge the conventional wisdom about the centrality of ethnic preferences in explanations for the negative association between ethnic diversity and economic and political outcomes in Africa. They suggest that other factors—such as technologies that facilitate norms of cooperation within ethnic groups—are the key drivers of ethnic tensions in Africa.

A central implication is that efforts to dampen ethnic divisions by changing ethnic attitudes may not be enough. Rather, institutional and policy reforms that facilitate the flow of information across ethnic lines and limit the ability of elites to mobilise the population along ethnic lines may prove more effective in ameliorating politicised social divisions.

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## Footnotes

[1] Such explanations based on *ethnic preferences* contrast with theories based on *institutional factors* that stress difficulties in communication, imposing social sanctions, and enforcing social norms across group lines (Hardin 1995, Miguel and Gugerty 2005, Habyarimana *et al.* 2007).

[2] This term has also been used by researchers focusing on the correlation between ethnic group membership and preferences over particular public policies (e.g. Alesina *et al.* 1999, Alesina and LaFerrara 2005, Lieberman and McClendon 2013).

[3] All aspects of the design and econometric approach were pre-specified in a registered pre-analysis plan, incorporating adjustments for multiple hypothesis testing. Pre-analysis plans are increasingly used in field experiments (Casey *et al.* 2012, Finkelstein *et al.* 2012) but their use to date in laboratory experimental studies has been limited.

[4] While we find little evidence of co-ethnic bias in our data, we do identify a decrease in overall levels of altruism and cooperation in the lab round that took place immediately before the 2013 Kenyan elections relative to the one that took place roughly eight months earlier. Giving in dictator games drops from 41.5% to 36.1%, while public-good game contributions fall from 46.5% to 43.5%, although this latter difference is not statistically significant. It remains a fertile topic for future research to understand whether the competitive atmosphere of an election period may generally affect cooperation and generosity, as might be suggested by the results on competition and social norm adherence in Falk and Szech (2013).

[5] The core null finding is also not the result of selective presentation of results on our part – the econometric approach was pre-specified, and in a novel test, we present the distribution of statistical significance levels for results contained in the main tables versus the full set of pre-specified results.

[6] See, for instance, Carlson (2015), Michelitch (2015), Dionne (2014), Grossman and Honig (2015), Hjort (2014), Marx *et al.* (2015), Loewen *et al.* (2014), Jeon (2013), and Voors *et al.* (2012).

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