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The white-man effect: How foreigner presence affects behavior in experiments☆

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ABSTRACT

We experimentally vary white foreigner presence in dictator games across 60 villages in Sierra Leone, and find that the simple presence of a white foreigner increases player contributions by 19 percent. To separate the impact of the white foreigner's race and nationality from other characteristics, we test additional predictions. First, the white foreigner's presence may heighten demand effects, prompting players to try to impress the white foreigner by being more generous. This should make behavior in the game less indicative of true generosity. Consistent with this, we find that game contributions are no longer predicted by real-world public good contributions when the white foreigner is present. Second, those more familiar with aid may perceive the games as a form of means-testing, and therefore give less to signal that they are poor. Consistent with this, in the presence of the white foreigner, players in more aid-exposed villages give less, and are more likely to believe that the games are testing them for aid suitability. Together, these results suggest that players' giving decisions respond to the white foreigner's race and nationality. Behavioral measures are increasingly used to infer cross-national differences in social preferences or to assess aid effectiveness—our results suggest that we should be cautious in these uses.

1. Introduction

Lab-in-the-field experiments are increasingly conducted in developing countries (Fig. 1). The actions of players in these experiments tend to be interpreted as measures of human behavior, and are used to offer answers to questions such as whether aid affects social capital (Fearon et al., 2009, 2015; Casey et al., 2012; Humphreys et al., 2012; Avdeenko and Gilligan, 2015), or to infer cross-national differences in social preferences (Henrich et al., 2006). In practice, these experiments are

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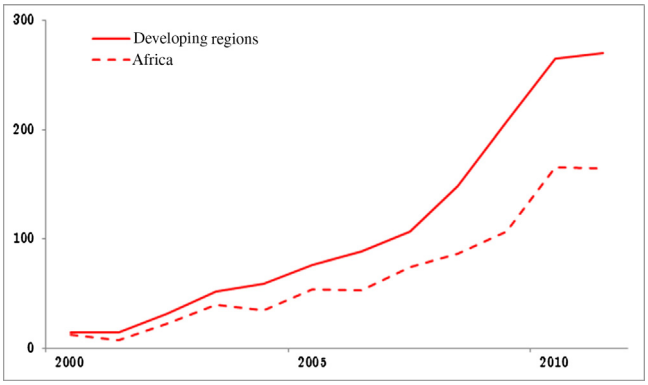

Fig. 1. The increasing use of dictator games in developing countries. *Note*: This graph shows the number of mentions of dictator games in developing countries (solid line) and in Africa (dashed line), based on Google Scholar counts.

frequently conducted by foreigners whose ethnicity differs starkly and visibly from that of local participants. Could the presence of these foreigners affect behavior in these experiments and thereby complicate using them for these purposes?

While the results from such experiments are interpreted as unbiased metrics of human behavior, in both the experimental and aid contexts, differences in race and nationality strongly signal differences in wealth, power and authority. Understanding the extent to which these differences bias individual behavior is important, given the growing use of behavioral techniques, and the implications of such bias for aid targeting and evaluation.

Our paper directly examines this issue. We study the effect of researcher race and nationality on individual behavior in a developing country. Specifically, we conduct a lab-in-the-field experiment that randomizes the presence of a white foreigner across behavioral games in 60 villages across Sierra Leone. We assess how the presence of this 'white-man'[1] impacts generosity as measured by player contributions in dictator games.[2] We find that the mere presence of the white foreigner on the research team increases the amount given by a substantial 19 percent.[3]

A challenge in interpreting this effect as arising from the white foreigner's race and nationality lies in the fact that the experiment varied the presence of two individuals—one white and one black—across the games. Thus, players may have responded to some other characteristic of the white foreigner, besides his race and nationality. For example, if he was perceived to be especially friendly, this personality trait may have increased giving. Alternatively, if he seemed more educated, this may have commanded greater respect and influenced player allocations. In short, many channels are possible.

We deal with this challenge in two ways. The first is by design. The behavioral games were implemented by teams of five individuals, four of whom were black Sierra Leoneans, including the team leader. The random variation is in the identity of the fifth member: in control areas, he too was a black Sierra Leonean, but in treatment areas, the fifth member was a white foreigner. The team leader—who was the same person across all games—played an active role and instructed the players. In contrast, the protocol specified a silent, limited role for the fifth member. He was not allowed to talk to the players in either treatment or control areas. His specific task was to hand out money at the start of the game, and he was not to interact otherwise with game participants. In this regard, our experiment examines how the mere *presence* of a white foreigner affects measured generosity in the games.

This design only partly mitigates concerns that other characteristics could drive the observed effects. To further address this issue, we lay out explicit hypotheses about why the white person's presence could plausibly influence player contributions, and generate additional, testable predictions implied by the hypotheses.[4] We test these predictions by drawing on rich household and village-level survey data collected from game participants, which were collected as part of a baseline for a separate study on post-conflict reconciliation.

Our key hypothesis is that the result can be explained by the 'experimenter demand effect', which arises when research subjects change behavior to conform to the perceived desire of the researcher (Masling, 1966; Levitt et al., 2011; Nichols

[1] Non-Africans in Sierra Leone are typically referred to in English and Krio as "white-man", and in other dominant local languages as its literal equivalent: "opoto" in Temne, "poomui" in Mende, etc. Even though Lebanese, Chinese, or Indians may sometimes be identified as such when they are compared to one another, they are generally referred to as "white" when discussed in comparison to Sierra Leoneans or Africans. Thus we refer to our treatment as the 'white-man' effect.

[2] Player contribution in a dictator game is the common measure of altruism in behavioral experiments (Cardenas and Carpenter, 2008).

[3] Our paper relates to studies in the social psychology literature that have examined the impact of surveyor and experimenter characteristics, including race, on relevant outcomes—see Rosenthal (1963) for a summary. Others have also examined how researcher characteristics including race, education, income, gender, and religion influence subject response in survey data (Miyazaki and Taylor, 2007; Cotter et al., 1982; Finkel et al., 1991; Hyman, 1954; Mensch and Kandel, 1988; Reese et al., 1986; Anderson et al., 1988; Webster, 1996; Bailar et al., 1977; Blaydes and Gillum, 2012).

[4] By focusing on the experimenter's ethnicity, our paper differs from previous studies which have examined the import of players' racial, ethnic and national identities in determining behavioral game allocations (e.g. Burns, 2006, 2012; Whitt and Wilson, 2007; Habyarimana et al., 2007; Cappelen et al., 2013; Adida et al., 2012).