## Promoting Peace Amidst Group Conflict: An Intergroup Contact Field Experiment in Nigeria - Introduction

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## 0.1 Introduction

Intergroup conflict is responsible for many of the worst displays of human nature. In Nigeria, intergroup conflict between farmers and pastoralists has claimed countless lives and destroyed countless communities over the past two decades. As the conflict escalated, groups of anti-pastoralist vigilantes mobilized to pre-emptively prevent pastoralists from encroaching on land claimed by farmers (Duru 2018; McDonnel 2017). These groups, dubbed the "livestock guard", ransacked pastoralist settlements and violently drove pastoralists from their homes, often with the assistance of the local farming community. Likewise, pastoralist groups enacted vigilante justice, raiding and burning down farming villages seen to encroach on land claimed by pastoralists. Attacks such as these forced up to 180,000 people from their homes in 2018 (Daniel 2018) and farmer-pastoralist conflict costs Nigeria \$13 billion of lost economic productivity annually (McDougal et al. 2015).

Though farmer-pastoralist conflict was widespread, mass violence did not break out between these groups in all conflicting communities. In one village, farmers and pastoralists defended each other from hostile neighbors. When a group of livestock guard came for one pastoralist settlement, the neighboring farming village arrested them to protect the pastoralists. After the arrest, farmers and pastoralists convened to decide what should be done with the prisoners. They agreed that the group of livestock guard should not be punished, but should be disarmed and released home – a proposition proposed by *the pastoralists*. These farmers and pastoralists had also struggled with conflict, and people on both sides had died in disputes over farmland and grazing land. But their disputes had not escalated to the point that each side wanted the other removed by any means necessary. They had created structures that allowed them to settle disputes, and the same structures allowed them to reach a solution about the livestock guard.

Why were some farmer and pastoralist groups able to keep peace whereas others were swallowed by the escalating conflict? Why were some communities able to overcome their intergroup disputes whereas others were destroyed by them? These questions are not unique to Nigeria, and understanding the factors that help groups resolve their disputes is important for mitigating and preventing the myriad intergroup conflicts around the world. Using the framework of intergroup conflict as a bargaining failure, we argue that reducing intergroup prejudice during an ongoing conflict can increase intergroup trust and reduce violent conflict. In situations of high prejudice, groups are essentially locked into a mutually-defecting Prisoner's Dilemma because each side assumes the other will defect, even if one side cooperated first. Interventions that reduce group prejudice could help the groups achieve peace by helping the groups update their perceptions of each other's trustworthiness. Intergroup trust ameliorates bargaining problems and increases the likelihood of the groups solving disputes through bargaining instead of violence. Peacebuilding programs can help conflicting groups achieve trust

through intergroup contact and superordinate goals.

Intergroup conflict is often conceptualized as a bargaining problem (Fearon 1994; Powell 2006). Both groups want some resource – land, power, etc – and must decide how to distribute that resource. Groups can either bargain and split the resource, or groups can fight to claim all of the resource or to increase their bargaining position later. Fighting is costly, so both groups are better off finding a bargained solution than fighting. However, bargaining fails if neither group trusts the other side to be truthful or to honor bargained agreements (A. Kydd 2000; Rohner, Thoenig, and Zilibotti 2013, 2013). Without a reason to trust in the other side, groups are likely to remain in conflict.

How can groups in conflict escape this spiral of distrust and conflict? The classic answer is a strong external actor that can increase the cost of fighting, punish defections from bargained agreements, and facilitate information flows (Doyle and Sambanis 2000; Fearon 1994; Ostrom and Walker 2003; Powell 2006). For many conflicts, international actors fulfill those role through military intervention and mediation (Di Salvatore and Ruggeri 2017; Doyle and Sambanis 2000). By providing reliable information and punishing defection from agreements, international intervention helps conflicting actors overcome the bargaining failures that lead to violent conflict (Fearon 1994, 1995; Powell 2006; Smith and Stam 2003). If a strong external actor punishes groups for defecting, each side can trust the other to abide by their agreement because abiding by their agreement is in each group's self-interest. A strong external actor serves as a substitute for the trust the groups lack.

While not universally successful, military intervention and mediation are effective strategies to promote peace in many conflicts (Doyle and Sambanis 2000; Gartner 2011; Hartzell, Hoddie, and Rothchild 2001; Wallensteen and Svensson 2014; Walter 2002). But strong external actors guaranteeing peace are not desirable or possible everywhere. Intervening as an external actor is costly, and often there are no external actors strong enough or interested enough to intervene (Fey and Ramsay 2010; A. H. Kydd 2006). In many conflicts, the conflicting groups are not united and therefore it is not clear who is involved in bargaining and who the external actor should punish if one side defects. Where an external actor is available, its presence is a short-term peace solution and its effects do not endure with the external actor's departure (Beardsley 2008; Rohner, Thoenig, and Zilibotti 2013; Weinstein 2005). With or without external actors to halt the conflict, the groups must eventually build trust rather than find a substitute for trust.

Increasing trust amidst conflict is difficult, however, for psychological reasons. Group conflicts are often driven and perpetuated by intergroup animosity and prejudice long after the original grievance is forgotten [McDonnel (2017); cite more about intergroup conflict & intergroup prejudice]. Intergroup animosity and intergroup prejudice can be insurmountable barriers to peace for direct and indirect reasons. Directly, highly prejudiced groups are less likely to trust information they receive from the other side or any peace commitment they get from the other side. In this way, prejudice directly inhibits intergroup bargaining and prevents peaceful resolution of the conflict.

Indirectly, prejudice biases interpretations of ingroup and outgroup behavior, preventing each group from updating and improving their attitudes about the other. Ingroups will perceive their own belligerent actions as defensive and justified, whereas behavior by outgroup members may be perceived as more threatening and more malicious than the same behavior committed by a neutral party [Hewstone (1990); cite fundamental/ultimate attribution error, motivated reasoning, confirmation bias, anchoring bias]. The perceived negative behavior may be seen as *defining* of the group, whereas any perceived positive behavior may be seen as the *exception* to the group (Allison and Messick 1985; Pettigrew 1979). This biased information processing reinforces negative group stereotypes and can subvert the groups' own attempts to foster peace. It can also sabotage intergroup bargaining by

causing the groups to have inaccurate beliefs about each other and each other's willingness to make peace, adding to information and commitment problems that cause conflict.

Existing strategies to reduce intergroup conflict do not deal with prejudice reduction. One approach to reducing intergroup prejudice comes from intergroup contact theory. Intergroup contact theory hypothesizes that interactions in which group members cooperate to achieve shared goals will reduce prejudice and the likelihood of violence. Intergroup contact works by demystifying the outgroup, presenting the other group's perspective, and replacing imagined stereotypes with firsthand knowledge (Allport 1954; Pettigrew and Tropp 2008). This type of structured face-to-face contact also provides groups the opportunity to send costly signals about their willingness to cooperate (A. Kydd 2000; Lupia, McCubbins, and Arthur 1998; Rohner, Thoenig, and Zilibotti 2013), helping each group update its opinion of the other side's preference for peace. Intergroup contact is likely especially good at reducing intergroup conflict when groups cooperate to achieve superordinate goals – goals that require the cooperation of both groups and benefit both groups – because groups experience the material benefits of cooperation (Gaertner et al. 2000; Sherif 1958).

The prejudice-reducing effects of intergroup contact have been demonstrated in a variety of countries and using a variety of methodological approaches (Paluck, Green, and Green 2017; Pettigrew and Tropp 2006). Notably, intergroup contacted programs reduced prejudice between white people and black people in the U.S. and South Africa (Burns, Corno, and La Ferrara 2015; Marmaros and Sacerdote 2006), Jews and Arabs (Ditlmann and Samii 2016; Yablon 2012), and Hindus and Muslims (Barnhardt 2009). Peacebuilding programs utilizing intergroup contact and superordinate goals are increasingly used to reduce intergroup conflict by peacebuilding organizations (Ditlmann, Samii, and Zeitzoff 2017).

Although research shows support for intergroup contact theory generally, its efficacy to reduce prejudice amid real-world conflict is an open question. First, most research about intergroup contact uses correlational studies or lab experiments, both of which have methodological weaknesses. Correlational studies cannot demonstrate causal effects, and results from lab experiments may not apply to real world conflicts, where groups compete for resources and share a history of intergroup violence (Ditlmann, Samii, and Zeitzoff 2017). Second, no prior studies of intergroup contact have involved groups engaged in active intergroup violence<sup>1</sup>, and some studies suggest that intergroup contact in violent settings could be ineffective or even backfire. Negative experiences with outgroups increase prejudice, and the most prejudiced individuals are most likely to interpret intergroup contact negatively (Gubler 2013; Paolini, Harwood, and Rubin 2010). Despite a lack of evidence about the effects of contact-based peacebuilding programs in violent contexts, and the risks of programs going badly, peacebuilding organizations implement numerous contact-based interventions in violent contexts each year. These peacebuilding programs might defuse intergroup conflict, but these programs also might do more harm than good.

To study the effect of bottom-up psychological interventions on violent conflict, we conduct a field experiment with farmer and pastoralist communities in Nigeria to determine if an intergroup contact-based program effectively increases intergroup trust and increases the physical security of group members. We randomly assigned communities with farmer-pastoralist violence to receive the peace-building intervention or serve as a control group. The intervention formed mixed-group committees and provided them with funds to build infrastructure that would benefit both communities; committees

<sup>&</sup>lt;sup>1</sup>Previous studies have involved groups with a history of violent conflict but not groups involved in an active conflict. See Scacco and Warren (2018) and Ditlmann and Samii (2016) for examples.

then collaboratively chose and constructed infrastructure projects.<sup>2</sup> The program also provided mediation training to each community's leaders. To measure the effects of the intervention, we conducted pre- and post-intervention surveys, a post-intervention natural public goods behavioral game,<sup>3</sup> and twelve months of systematic observations in markets and social events during the intervention.

We find that the program increased trust between groups and decreased perceptions of physical insecurity. Compared to the control group, the treatment group expressed more outgroup trust and more willingness to interact with outgroup members. The treatment group was also less prevented by violence from engaging in routine tasks, such as working, going to the market, and getting water. The results also suggests that intergroup contact for a relatively small percentage of a group can indirectly affect attitudes of group members with no exogenous increase in contact with the outgroup. We observe the most positive changes from individuals directly involved in the intergroup committees, but we also observe positive spillover to group members who were not involved in the intergroup contact intervention.

This study expands our knowledge about intergroup conflict in several ways. First, this study teaches us about the capacity of psychologically-based peacebuilding programs to improve intergroup relations. To our knowledge this is the first field experimental test of a psychologically-based peacebuilding program implemented during an active conflict. We evaluated the program's effects on both attitudinal and behavioral outcomes. The results suggest that bottom-up psychologically-based peacebuilding programs can effectively reduce conflict and is especially relevant to conflict resolution in the cases of intergroup and intercommunal conflicts.

Second, this study is one of the only field experimental interventions to test intergroup contact theory with groups actively engaged in violence. Each of the groups in our study were part of an active and escalating conflict, with members of each side being killed within one year of the intervention's onset. Even in such a context, community members who engaged in direct interpersonal interaction with an outgroup member changed more positively than other community members. Importantly, the intergroup contact involved achieving superordinate goals that benefited both groups materially. This suggests that contact with superordinate goals is robust to actively violent contexts.

Third, we contribute to the literature about the role of social diffusion and social institutions in shaping attitudes and behaviors. Bottom-up peacebuilding interventions seek to provide a structure in which groups can solve their own conflicts, and those structures are social rather than coercive. Understanding how those structures form and are maintained is relevant to other institutional setups attempting to influence behavior. In this study, though the greatest changes in attitudes and behaviors were from individuals directly interacting with outgroup members, the attitudes of other community members also improved. This type of "social effect" is also a potential way to "scale up" the effects of intergroup contact.

Fourth, this paper's focus on farmer-pastoralist conflict is especially important because the pastoralists are of the Fulani ethnic group. The Fulani are the largest semi-nomadic people on Earth, but their way of life makes them targets for violence throughout Africa. Along with this conflict in Nigeria, Fulani in Mali have been the targets of violence so severe that researchers at Armed Conflict Location & Event Data Project called it "ethnic cleansing" (Economist 2019). Understanding how to prevent

<sup>&</sup>lt;sup>2</sup>The communities built boreholes, market stalls, primary health care facilities, etc.

<sup>&</sup>lt;sup>3</sup>In a public goods game (PGG), research subjects are given money and told they can keep the money or donate it to a public fund. Money donated to the public fund is multiplied by some amount and then shared with all subjects. Our PGG is *natural* because it was conducted in a natural setting, rather than a lab. The funding for the PGG came from the National Science Foundation under Grant No. 1656871.

conflict between Fulani and settled peoples can help prevent the eradication of a people and their way of life.

In the next section we provide a theoretical framework for how and why bottom-up interventions that focus on prejudice reduction can reduce intergroup violence. We then discuss Nigeria's farmer-pastoralist conflict, our experimental intervention, and two designs to evaluate the effect of the intervention. Last we present the results of the study and conclude by connecting these findings to theories of group conflict and prejudice.

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