universität innsbruck

Faculty of
Economics and Statistics

High minority power facilitates democratization across ethnic fault lines

Luke Glowacki, Florian Morath and Hannes Rusch

Working Papers in Economics and Statistics

2023-18 (updated version 14.04.2026)

University of Innsbruck
https://www.uibk.ac.at/EconStat/

University of Innsbruck
Working Papers in Economics and Statistics

The series is jointly edited and published by

- Department of Banking and Finance
- Department of Economics
- Department of Public Finance
- Department of Statistics

Contact address of the editor:
Faculty of Economics and Statistics
University of Innsbruck
Universitaetsstrasse 15
A-6020 Innsbruck
Austria
Tel: + 43 512 507 96136
E-mail: Dean-EconStat@uibk.ac.at

The most recent version of all working papers can be downloaded at
https://www.uibk.ac.at/fakultaeten/volkswirtschaft_und_statistik/forschung/wopec/

For a list of recent papers see the backpages of this paper.

High minority power facilitates democratization across ethnic fault lines

Luke Glowacki[1,*], Florian Morath[2,*] and Hannes Rusch[3,4,*,†]

[1] Department of Anthropology, Boston University, 232 Bay State Road, Suite 101, Boston, 02215, MA, US
[2] Department of Public Finance, University of Innsbruck, Universitätsstraße 15, Innsbruck, 6020, AT
[3] Independent Max Planck Research Group 'Behavioral Economics of Crime and Conflict', Max Planck Institute for the Study of Crime, Security and Law, Günterstalstraße 73, Freiburg im Breisgau, 79100, DE
[4] Department of Microeconomics and Public Economics, Maastricht University, P.O. Box 616, Maastricht, 6200 MD, NL
[*] The authors consider their contributions equal and are listed in alphabetical order.
[†] Corresponding author h.rusch@csl.mpg.de

Abstract

Abstract: *Democratization is vital for peaceful coexistence but often fails, especially where ethnic grievances prevail. Previous research on democratization vis-à-vis ethnic conflict struggled to separate effects of institutional design from those of intergroup animosity. In our lab-in-the-field experiment unequal groups with ongoing ethnic tensions could solve collective allocation problems either democratically or aggressively. As predicted, minorities used inefficient aggression much more often. However, giving minorities high power in the democratic process substantially reduced this problem. Remarkably, removing ethnic animosity changed beliefs but did not reduce aggression. Our results demonstrate that well-designed institutions can achieve efficient, peaceful outcomes even amid intergroup hostility. [100 words]*

JEL-Codes: *D74, D72, D91, D02*

1 Introduction

Motivation. Imagine a country called 'Exampland' that is inhabited by two ethnic groups: the 'Ma' and the 'Mi'. The Ma account for 60% of the population, while the Mi account for the remaining 40%. The president is elected by a simple majority vote. Since elections are free and fair, Exampland can be considered a full democracy in this regard. Nonetheless, Exampland faces a problem. A presidential candidate can win a majority by promising Ma-favoring policies and get reelected by implementing them and then promising more of the same policies (Burgess et al., 2015; Houle et al., 2019; McGauvran and Stewart, 2021). In such a democracy, the Mi are structurally disadvantaged and possibly tyrannized by the Ma (de Toqueville, 1835). Thus, when forced to choose between this type of democracy and violent ways of public goods provision for their group, the Mi might well opt for aggression — for example, by trying to install a Mi-favoring leader or solving the resource-allocation problem in other non-democratic ways.

Research question. Obstacles to democratization as faced by 'Exampland' are well known in political economy and international relations. Case-based and correlational macro-level evidence supports the general idea that ethnically fragmented societies are more prone to conflict (Esteban et al., 2012a, 2012b; Reynal-Querol, 2003) and face greater challenges when attempting to establish democratic governance (Houle, 2015; Leipziger, 2024; Panzano, 2023; Shoup, 2018). However, a remaining key question in this context is how much of the problem is attributable to structural factors induced by institutional design — like ethnic minorities' prospective influence on political outcomes under democracy — and how much of it roots in 'psychological' factors, like preexisting grievances or mistrust between ethnic factions. This question is crucial because democratic governance frameworks cannot succeed if deep grievances prevent actors from negotiating compromises or complying with them.

Contribution. Our paper provides causal micro-level evidence from an economic lab-in-the-field experiment that cleanly isolates key structural and 'psychological' drivers contributing to the problems faced by countries like 'Exampland.' In a field setting with salient ethnic animosities, we leverage the flexibility of the experimental method to investigate the pacifying effects of three democratic forms of collective decision-making that give increasing degrees of power to minorities. Additionally, we test for possible effects of completely removing ethnic tensions between the involved groups. While the experimental approach we choose here inevitably entails limitations with respect to external validity, it is impossible to cleanly isolate these channels with other methods. Moreover, our approach allows us to explore the role of (possibly distorted) beliefs about opponent group behavior in the context of democratization — that is, we can investigate whether opposition to democratization processes is fueled by the minority's apprehension of a looming tyranny of the majority and the extent to which such apprehension is justified.

Relevance. To illustrate how an experimental micro-approach to the problem we are studying can complement the existing macro-level insights, recent data collected by the *Varieties of Democracy* ('V-DEM') project provide some motivating evidence: Does ethnic fragmentation pose an obstacle to successful democratization? Figure 1 uses V-DEM's classification of episodes of democratization to show that countries that successfully transitioned to democracy at least once between 1900 and 2018 exhibit statistically significantly lower degrees of ethnic fractionalization than countries that never did — a result that also holds when using more detailed regression analyses that leverage the panel structure of the V-DEM data; see Supplemental Appendix S2, which also provides some robustness checks and additional methods discussion.

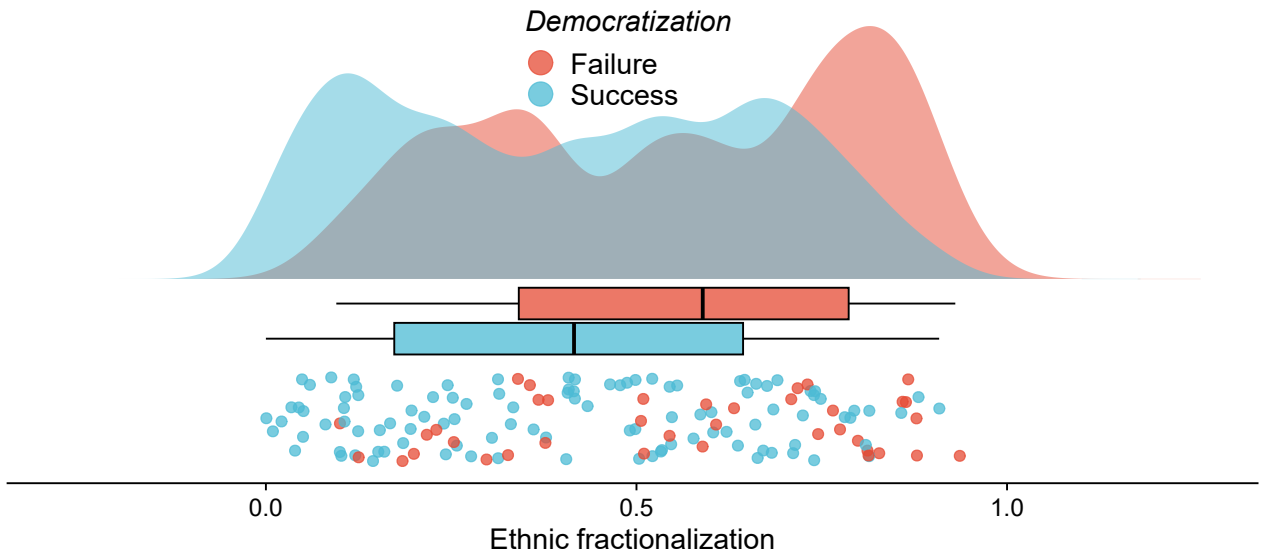

Figure 1: *Motivating evidence at the macro-level. Raincloud plot of ethnic fractionalization from Alesina et al. (2003) for $N = 144$ countries grouped by occurrence of at least one successful episode of democratization in the time between 1900 and 2018 in the V-DEM data compiled by Wilson et al. (2020). Groups are coded as 'Success' ($n = 106$) vs. other outcome ('Failure', $n = 38$) — three countries having only censored episodes are excluded. Welsh's t-test for differences between the groups: $M_{Failure} = 0.56$ vs. $M_{Success} = 0.41$, $t(65.79) = 3.03$, $P = 0.004$; box plots follow Tukey's specifications; mild jitter was added to dot plot for better display. See Supplement S2 for further details and extended analyses.*

The main point to note here is: macro-level data covering all endogenously emerging democratization episodes of the last 120 years are consistent with the idea that higher ethnic fractionalization makes it more difficult to establish reasonable power sharing agreements. However, ethnically highly fractionalized countries may, for instance, also be more likely to have been forged by colonial powers not respecting previous regional traditions and power balances, which created lasting animosities and periodically rekindling conflict, independent of any imposed form of government (Lange et al., 2021; Vogt, 2019). While our lab-in-the-field approach is not able to shed light on any particular historical cases, it can investigate the success of different mechanisms used for allocating decision-making power in an environment shaped by high ethnic fractionalization and salient interethnic tensions and it can also remove those tensions while leaving everything else unchanged. The causal effects of these clean, exogenous manipulations thus provide insights into how individual decision-makers are likely to react to the situational features we study and which appear in countless varying combinations throughout the more recent historical record.

Study design. We conducted a lab-in-the-field experiment in Ethiopia at a time when strong political tensions existed between the ethnic groups from whom we recruited our participants. We modeled the focal problem as follows: Our BASELINE experimental condition creates 'mini-societies' of five individuals which are fractionalized into a majority of three vs. a minority of two players. We recruit participants such that within majority and minority groups players always have the same ethnic background. Stage 1 of the resource allocation game they then play involves the decision of interest: choosing between a democratic procedure for resource distribution vs. destructive conflict. If at least one group chooses conflict, the resource is allocated via a simplified Tullock-contest which destroys half of the resource's value and ends the game. If both groups opt for the democratic allocation, a vote takes place in Stage 2 to determine which group will have the authority to allocate the resource, which retains its full value in this case. In Stage 3, the group that receives the most votes decides on the resource shares for their own and the other group. Obviously, this 'winner-take-all'

setup maximally disadvantages minority groups if they opt for democratic resource sharing. As a first treatment dimension, we then depart from majority voting and change the democratic procedures such that minorities receive more influence: in a first treatment ('PROP-REP'), we give each vote an equal impact on the expected election outcome, thus removing part of the minority's structural disadvantage; in a second treatment ('VETO'), we allow for the opposition to challenge the allocation chosen by the winner of the election *ex post*, thus giving minorities strong veto-power. These two treatments exogenously impose institutional changes while maintaining ethnic animosity. In a third treatment ('ALL-INGROUP'), we retain the 'winner-take-all' institutional design from BASELINE, but experimentally remove ethnic tensions by recruiting participants from the same ethnic background to form the minority and the majority group, thus creating an ethnically homogeneous overall 'mini-society.'

Findings. Our main result is clear-cut and well aligned with theory: we find that assigning strong structural power to minorities is able to prevent them from triggering destructive conflict. In contrast, the weaker and possibly more subtle increase in minority power through an increase of the impact of their votes did not reduce conflict rates. Similarly, our treatment that removed ethnic tensions in the winner-take-all context did not lead to noticeable appeasement — which is in line with theory, but remarkable from a behavioral economics perspective. Finally, although ethnic tensions did not affect conflict entry or allocation decisions under winner-take-all, they did significantly affect participants' beliefs.

Related literature. Our study contributes to several broader streams of literature in economics and beyond — for comprehensive recent reviews of the interdisciplinary literature on intergroup conflict see Böhm et al. (2020), Kimbrough et al. (2020), Lopez and Johnson (2020), and Rusch (2023). First, we connect to a literature in political science and economics that studies reasons for war based on a bargaining approach — see Jackson and Morelli (2011) for an overview and Blattman and Miguel (2010) for a survey that focuses on civil war. We contribute to this literature by presenting causal micro-level evidence on a specific type of commitment problem in the context of democratic collective decision-making: minority groups' anticipation of a tyranny of the majority (de Toqueville, 1835). Additionally, we build on a literature on determinants of successful democratization and political violence. Within this literature, one focal topic is the effect of ethnic divisions and inequality on voting decisions (Houle et al., 2019; McGauvran and Stewart, 2021), democratization (Houle, 2015; Laurent-Lucchetti et al., 2024; Leipziger, 2024; Panzano, 2023), and the outbreak of civil wars (Esteban and Ray, 2008; Esteban et al., 2012a; Fearon and Laitin, 1996, 2000, 2003). The study closest to ours is Mueller and Rohner (2018) who link ethnic tensions to conflict incidence under two different democratic institutional designs. Using correlational regional-level data from Northern Ireland, Mueller and Rohner (2018) find that power sharing vs. winner-take-all voting in regional parliaments is associated with a reduced likelihood of violent conflict between these two main religious groups. Our study builds on a similar idea but investigates different power sharing mechanisms and clearly establishes causality through experimental methods.

Regarding methodology, our study complements experimental work conducted in contexts with prevalent intergroup tensions — see Bauer and Chytilová (2025) for a review. Typically, lab-in-the-field studies in this literature elicit participants' (pro- and anti-) social preferences and behavior in simple allocation games played with recipients from ingroup and varying outgroups (Bauer et al., 2016, 2018; Böhm et al., 2021, 2025; Doğan et al., 2022; Restrepo-Plaza and Fatas, 2022; Schaub, 2017; Werner and Lambsdorff, 2020). Relevant for the present study is Doğan et al. (2018), who examine the impact of within-group spoils-sharing rules on offensive versus defensive strategy choice in contests between pairs of groups. Like in our study, but for a very different context, their manipulation of real-world hostility also only showed subtle effects, while changing incentives drastically affected

behavior.

Finally, we add to a literature using economic games to analyze intergroup conflict, its emergence, and the success of different conflict resolution mechanisms under controlled experimental conditions. For surveys see Dechenaux et al. (2015) and Sheremeta (2018). The few existing experimental studies that focus on the onset and resolution of conflict almost exclusively analyze conflict between individuals in the lab. For example, McBride and Skaperdas (2014) consider commitment problems when conflict changes future interactions. Kimbrough and Sheremeta (2013, 2014) study the role of side payments in conflict resolution. Kimbrough et al. (2014) and Herbst et al. (2017) focus on conflict asymmetries and their effect on rejections of peaceful resource allocations and bargaining failure. To the best of our knowledge, the only laboratory experiment investigating the onset of conflict between groups is Ke et al. (2023), who analyze behavioral factors that may make players more aggressive in group contexts. We advance this literature by comparing different conflict resolution mechanisms that vary the power of the minority and by bringing the setting to the field, which allows us to study these mechanisms amid real-world between-group hostility.

Structure of the paper. The remainder of this paper is organized as follows: Section 2 introduces our experimental design in detail, summarizes behavioral predictions, and explains the field setting; detailed descriptions of the theoretical framework and formal derivation of our predictions are relegated to Supplement S1. The experiment's results are presented and analyzed in Section 3. Section 4 discusses our findings and concludes.

2 Experimental design

The core rationale of our experimental design was to model an ethnically fragmented 'mini-society' in which a destructive conflict emerges in case at least one of the involved parties rejects an available mechanism for peaceful and efficient democratic collective decision-making. Within this stylized situation, we were interested in the causal roles of increasing minority power under the democratic mechanism as a pacifying 'structural' factor and the removal of ethnic hostility between the societal factions as a pacifying 'psychological' factor.

In order to capture real and actual ethnic hostility, we conducted our preregistered lab-in-the-field experiment in the Southern Nations, Nationalities, and Peoples Region ('SNNPR') of Ethiopia in fall 2019 — our preregistration is available from the *AEA*'s RCT registry as Glowacki et al. (2019). At that time, strong ethnic tensions existed between the Sidama, who formed the largest ethnic fraction in the SNNPR, and other major ethnicities in the region (Tronvoll et al., 2020). At the time of data collection, the Sidama were forcefully striving for political independence from the SNNPR which was met with strong resistance by other ethnic groups. Despite strong logistic constraints posed by the politically unstable field setting, we were able to recruit $N = 240$ male participants, 120 Sidama and 120 Wolayta (aged 24.58 ± 3.44 years, 'Mean $\pm$ SD'). The Wolayta formed the second largest ethnic group in the SNNPR prior to Sidama independence; further background on the field setting is provided below.

For our experimental game paradigm, we randomly formed 'mini-societies' of five players subdivided into a majority group of three and a minority group of two players. These subgroups always were ethnically homogeneous. The experimental task for these pairs of unequal groups was to divide an amount of 540 Ethiopian Birr ('ETB') among the five players. They could do so either via a given democratic procedure for collective decision-making or via an aggressive, destructive option. (Note that although we will label the destructive option 'conflict' and the democratic procedures 'peace' here, all experimental instructions were presented in neutral language.) In all experimental conditions, participants were fully and truthfully informed *ex ante* about the ethnic background of

their own and the other subgroup as well as the entire sequence and consequences of the decisions they would potentially be making. Comprehension of these instructions was thoroughly checked.

2.1 Treatments and theoretical predictions

Always comparing against our 'BASELINE' condition which models structurally low minority power combined with high ethnic tensions, i.e., the 'worst case scenario', we consider two possible, orthogonal dimensions that may affect the conflict incidence: structural political influence of the minority (conditions 'PROP-REP' and 'VETO' which implement intermediate and high minority power, respectively) and psychological factors (condition 'ALL-INGROUP' which manipulates the intensity of preexisting ethnic tensions). This results in the four treatments shown in Table 1. A formal description of the theoretical framework and derivation of all benchmark predictions is provided in Supplement S1.

Table 1: *Overview of experimental conditions, predictions, and support of predictions by our results; total $N = 240$, with $n = 60$ participants per condition; a detailed derivation of our theoretical benchmark predictions for payoff-maximizing behavior is provided in Supplement S1.* †Note: *In BASELINE, ALL-INGROUP, and PROP-REP, Stages 2 and 3 are reached only in case 'peace' is chosen in Stage 1.*

	BASELINE	ALL-INGROUP	PROP-REP	VETO
Design				
Ethnic tensions	Yes	No	Yes	Yes
Voting rule	Majoritarian	Majoritarian	'Proportional'	Majoritarian
Minority power	Low	Low	Intermediate	High
Stage 1	Peace/conflict	Peace/conflict	Peace/conflict	Voting
Stage 2†	Voting	Voting	Voting	Allocation
Stage 3†	Allocation	Allocation	Allocation	Peace/conflict
Predictions				
Prediction majority	Peace	Peace	Peace	Take 'more'
Support by results	Strong	Strong	Strong	Fair
Prediction minority	Conflict	Conflict	Peace	Peace
Support by results	Strong	Strong	Weak	Fair

BASELINE condition. In Stage 1 of our BASELINE condition, the groups simultaneously decided whether to commit to the democratic regime ('peace') or not ('conflict'). If at least one of the groups opted for conflict, half of the 540 ETB were retained by the experimenter to represent the cost of conflict (see Supplement S1 for a microfoundation of these costs based on a standard model of conflict). The remaining 270 ETB were randomly allocated to one of the groups with 50:50 chance, where they were then split equally among the members of the winning group. The other group received nothing and the interaction ended. We chose to reduce this 'conflict subgame' to a strategically minimal automatism that does not depend on any further decisions; we did so to minimize cognitive demand and the potential for wrong expectations by participants about this arm of the game — i.e., we intended to make the outcome of conflict to be saliently destructive and very easy to understand. The *expected* conflict payoffs for members of the minority (majority) were 67.5 ETB (45 ETB) per capita.

If none of the groups chose conflict in Stage 1, the interaction moved to Stage 2 where an election determined which group would be entitled to decide over the allocation of the full 540 ETB. Every player had one vote and the simple majority of votes determined which group won the election.

Subsequently, in Stage 3, the winning group chose the allocation to be implemented and the interaction ended. To reduce the complexity of the experimental task, groups could only choose from

five predetermined allocations, as shown in Table 2.

Triggering conflict is clearly inefficient from a collective perspective, as 270 ETB are simply 'destroyed.' Nonetheless, the positive expected conflict payoff might still appear attractive to participants compared to what they may have expected under the democratic allocation procedure, which might be a disproportionally small resource share or even no payoff at all. By backward-induction, the benchmark prediction based on maximization of monetary payoffs is to keep the entire resources for the own group in Stage 3 and, therefore, for majorities to maintain peace, but for minorities to choose conflict.

Table 2: *The five allocations of 540 ETB which participants could choose from under the democratic decision-making procedures, as group totals and broken down per capita. In the experiment, neutral labels 'A'-'E' were used for the allocations and the money amounts where additionally shown using bills and coins of the local currency. 'Blue' was consistently used as the color marker and label for the own group and 'green' for the other group. For easier comparison, the last column shows the expected payoffs if conflict is triggered.*

Allocation	**'none'**	**'less'**	**'equal'**	**'more'**	**'all'**	*Conflict payoff*
Own group	**0**	**138**	**324**	**402**	**540**	**135**
if majority	3×0	3×46	3×108	3×134	3×180	3×45
if minority	2×0	2×69	2×108	2×201	2×270	2×67.5
Other group	**540**	**402**	**216**	**138**	**0**	**135**
if minority	2×270	2×201	2×108	2×69	2×0	2×67.5
if majority	3×180	3×134	3×108	3×46	3×0	3×45

ALL-INGROUP condition. In ALL-INGROUP, we removed ethnic tensions from the interaction by matching a minority and majority group of the same ethnicity. Thus, between-group tensions based on ethnic divisions are ruled out in this condition. This manipulation leaves the monetary incentives unchanged and thus does not change the game theoretic benchmark predictions. However, it might reduce conflict rates via other channels. For example, higher generosity by election winners might be expected when these are members of the ethnic ingroup, which might entail higher trust in the democratic mechanism and thus more peaceful choices (Böhm et al., 2020; Doğan et al., 2018).

PROP-REP condition. In PROP-REP, we structurally increased the minority group's power by changing the voting rule in Stage 2. Here, not the plain majority would win, but instead one of the five individual votes cast by players would be randomly chosen to determine the winning group, giving each vote an equal impact on the allocation independent of the own group's size. This voting mechanism, sometimes called 'random dictator' in the literature, captures some key features of voting power in democratic regimes with proportional representation of societal fractions (Feddersen et al., 2009; Morton and Ou, 2015; Tyran and Wagner, 2019). Assuming payoff maximization by all players, this manipulation increases the minority group's expected democracy payoff from 0 ETB in BASELINE to $2/5 \times 540 = 216$ ETB in PROP-REP — as they gain the total 540 ETB two out of five times in expectation. From an *ex ante* perspective, this is strictly higher than the expected conflict payoff of 135 ETB and should thus suffice to make payoff-maximizing minorities choose 'peace.'

VETO condition. In VETO, instead, we stuck with majority rule voting but changed the sequence of decision stages, thus maximizing minority power (Eisenstadt and Maboudi, 2019; Juon and Bochsler, 2022; Mueller and Rohner, 2018). Here, the election was held first and the winning group was entitled to choose an allocation. However, before implementation, the group that lost the election was informed of the allocation chosen by the winner and could decide whether to either accept it 'peacefully' or to reject it by choosing the conflict option instead. This manipulation effectively equips the outvoted group with veto power over the allocation by the elected decision-maker. Assuming payoff maximization by all players, the majority would choose allocation 'more' and leave the

minority with a payoff of 138 ETB, which is just above their expected conflict payoff so that conflict is avoided.

We deliberately decided to move the conflict decision to Stage 3 in VETO, instead of adding a fourth stage in this treatment. This minimizes the differences in the number of decisions and procedural complexity between treatments. Moreover, we conjectured that having two separate conflict decisions, one *ex ante* and one *ex post*, carried too much risk of confusing participants in our strategy-method design, which would have rendered their decisions uninterpretable. Lastly, also note that it is fully irrational to opt for conflict *ex ante* when you could also costlessly observe the democracy outcome and then make a much better informed decision about conflict *ex post*.

2.2 Background on the field setting

During the summer and fall of 2019 ethnic tensions erupted between the Sidama and the Wolayta, two major ethnic groups in the Southern Nations, Nationalities, and People's Region ('SNNPR') of Ethiopia (Tronvoll et al., 2020). At the time, the SNNPR was the most ethnically diverse of Ethiopia's nine regional states consisting of over fifty ethnic groups. The Sidama were the largest ethnic group in the SNNPR, vastly outnumbering the Wolayta, the region's second largest ethnic group (Ethiopian Statistical Service, 2007).

Ethiopia is nominally a democracy with a parliamentary system, but receives comparably low scores on most democracy indicators (International IDEA, 2024). The country has a system of ethnic federalism which was established as a way to minimize ethnic conflict (Habtu, 2003). Ethnic federalism is enshrined in the Ethiopian constitution which guarantees the right for states to be organized based on ethnic identity (Federal Democratic Republic of Ethiopia, n.d.) and these identities also play important roles in Ethiopians' daily lives (Beeder et al., 2025). In 2018, Sidama representatives requested of the federal Ethiopian government to formally be recognized as an Ethiopian Region. If the Sidama region were approved, the SNNPR capital, Hawassa, a diverse multi-ethnic city would eventually become the seat of power for the Sidama ethnicity.

The Ethiopian constitution required a referendum to be held within one year of the request, which would have been in July 2019 but it was delayed until November 2019. While many Sidama were in favor of recognition of statehood, most Wolayta and others living within what would be the new Sidama region feared for loss of political power. More generally there were fears throughout the region that recognition of a Sidama state would lead to collapse of the multi-ethnic SNNPR with many of the smaller ethnic groups subsequently requesting recognition of statehood.

During the time between the request for statehood and the referendum numerous ethnic riots broke out in Hawassa and across the region. Although the cumulative number of dead are unknown, it includes at least dozens if not hundreds of victims and large amounts of property destroyed (BBC, 2019; Gebreselassie, 2019). The referendum was approved by an overwhelming majority of 98% though many Wolayta and other minority ethnic groups were reported to boycott it or failed to register to vote, in part reportedly because of intimidation (Awasa Guardian, 2019). Eventually, the successful creation of a Sidama zone did usher in the collapse of the SNNPR. After the Sidama, the Wolayta applied to leave the SNNPR, and other ethnic groups have followed leading to the creation of several new and smaller Ethiopian states as a result.

2.3 Experimental procedures

This study was conducted within a narrow time window of about two weeks in the second half of October of 2019, approximately one month before the referendum. Ethnic tensions between the Wolayta and the Sidama were extremely high at the time of data collection. We preregistered the experimental design and a minimal analysis plan. The preregistration can be accessed via the *AEA*'s

RCT registry (doi.org/10.1257/rct.4847-1.1); all experimental instructions, the data collected, and the code of our statistical analyses are available from the OSF (https://osf.io/9mhcs/).

Recruitment. Sidama participants were recruited by word of mouth from the University of Hawassa, by then the capital city of SNNPR. Wolayta participants were recruited by word of mouth from the University of Jinka, a larger market town south-east of Hawassa. We exclusively recruited male participants in order to avoid gender effects when our participants interacted within groups and had to make joint decisions. Traditionally, Ethiopia is a patriarchal country in which women are often excluded from democratic decision-making processes.

Sample size and repeated measures. Our aim was to recruit 60 participants per condition in sessions with 12 or 18 participants at a time. In each session we collected the decisions of all groups using the 'strategy method' — that is, we collected conditional decisions from each group for all possible choices the respective other group in their 'mini-society' could have made. These decisions were then matched with those of a randomly selected group from another session of the same experimental condition to determine the outcome of the game. For instance, we matched the decisions of a three-person group of a session with Sidama participants to the decisions of a two-player group of a session with Wolayta participants; to ensure participants' safety, members of different ethnic groups never met in person.

Our sample size is a compromise between statistical power and logistic feasibility. To maximize statistical power, we elicited *individual decisions* for all stages of the game first. Thereafter, participants entered *group discussions* in which they selected their joint group decision for each stage from these individual decisions. To further increase the number of observations and collect choices in both roles (majority and minority member), each session included two independent rounds/repetitions of the game using 'perfect stranger' matching, ensuring that no two participants would interact more than once within a session. The rules of the second round were announced only after completion of the first round. We decided to match the size of a participant's group in the first round of the game to their ethnic group's size, such that Sidama participants would play as majority group members first and as minority group members second, and *vice versa* for Wolayta participants. We did this to make the setup of the game as accessible as possible for participants — note that due to this conscious design choice, we can not statistically separate repetition effects from differential effects for the two ethnic groups. Therefore, we control for repeated measures but not for ethnic group (Sidama or Wolayta) in our detailed statistical analyses.

Power analysis. Our central variable of interest is the individual binary choice for or against conflict, requiring a comparison of proportions between conditions, e.g., using Fisher's exact test. When calculating conservatively with condition sample sizes of $N = 60$, i.e., based only on round 1 decisions and pooling across group sizes, conventional power requirements ($1 - \beta = 0.8$) of Fisher's exact test are met at $\alpha \leq 0.05$ for differences in proportions of about 25% and larger. That is, for effects with Cohen's $h \geq 0.5$, approximately, i.e., medium to large effects.

Data collection and payment. After confirming, based on participants' self-identification, that study participants were either Sidama or Wolayta depending on the condition, they were invited to participate in the study. All participants received a show-up fee of 100 ETB, corresponding to approximately 3.40 USD at the time of the experiment. (For reference: the ILO estimated the average monthly earnings of employees in Ethiopia in 2021 to be about 4,200 ETB.) All participants of a session were assembled in a large classroom. They were given pre-printed decision sheets (available in our replication materials) and pens to record their responses. After obtaining informed consent and providing general information on payment procedures etc., participants were divided into appropriately sized groups for the particular experimental condition. Groups were seated around tables separated from other groups. The instructions of the conditions were explained. Procedures

were demonstrated by the experimenter (who was non-blind to the research question) and a research assistant (who was blind to the research question) who also conducted thorough comprehension checks to ensure participant understanding.

Participants then made individual decisions for all variables of interest — i.e., preferred allocation, voting decision, and whether to trigger conflict, or, in VETO, which allocations to veto/accept — and stated their individual (non-incentivized) beliefs — about the expected outcome of the election, whether they expected the other group to trigger conflict, and which resource distribution they expected the other group to implement or, in VETO, to propose. Discussions among participants were not allowed at this stage. Once individual decisions were completed, participants entered a group discussion phase in which they had to choose one of the individual decisions as their group's final decision. For making these group decisions, free discussion among group members was allowed and encouraged.

After the first round, study participants were re-seated with new group members and completed the second round. After that, participants could complete a very brief survey for demographic information; we did not require responses here, so our data on demographics remain partially incomplete. Post-experimental payments based on condition and participant responses were made via phone credit after all data were collected. On average, participants received 67 ± 55 ETB (Mean $\pm$ SD) from the game, plus their 100 ETB participation fee.

3 Results

Our main results can be succinctly summarized: largely in line with theory and across treatments, members of minority groups generally anticipated to lose the election and chose conflict much more often than members of majority groups, resulting in substantial conflict incidence rates and resource destruction overall. Out of our experimental manipulations, only the VETO condition, i.e., salient and strong structural minority power, substantially reduced conflict incidence relative to BASELINE. The other two conditions, PROP-REP and ALL-INGROUP, did not achieve this.

In addition to our main findings, we observe some more subtle effects of our experimental manipulations on participants' beliefs, mainly about whether opponent groups would trigger conflict and about their generosity. In the remainder of this section, we present main results first, using conservative non-parametric testing based on group-level choices. We then unpack our findings further using regressions on individual choice data.

3.1 Main results

Conflict incidence and payoffs. To begin, Figure 2 visualizes the treatment effects on conflict incidence and resolution at the aggregate level, alongside participants' expected payoffs — both *ex ante* and conditional on peaceful resource allocation being reached. To obtain these incidence rates and expected payoffs, we feed our participants' group-level choice data into a simple Monte Carlo simulation that repeats the (uniformly random) matching of minority and majority groups within treatments. Panel A of Figure 2 shows that, relative to the other three treatment conditions, the rate of inefficient conflict in VETO was roughly halved, while the other two treatment manipulations do not successfully reduce conflict rates relative to BASELINE.

Panel B of Figure 2 shows that the lower conflict rates in VETO translate into notably higher *ex ante* expected payoffs for participants — an approximately 25% increase compared to BASELINE. Perhaps surprisingly, despite the high conflict rates observed in BASELINE, ALL-INGROUP, and PROP-REP, *both* groups would have been better off choosing peace. On average, realized democracy payoffs clearly exceed the expected conflict payoff (indicated by the horizontal line at 135 ETB in Panel B of Figure 2). This contradicts the majority-voting prediction in BASELINE and ALL-INGROUP

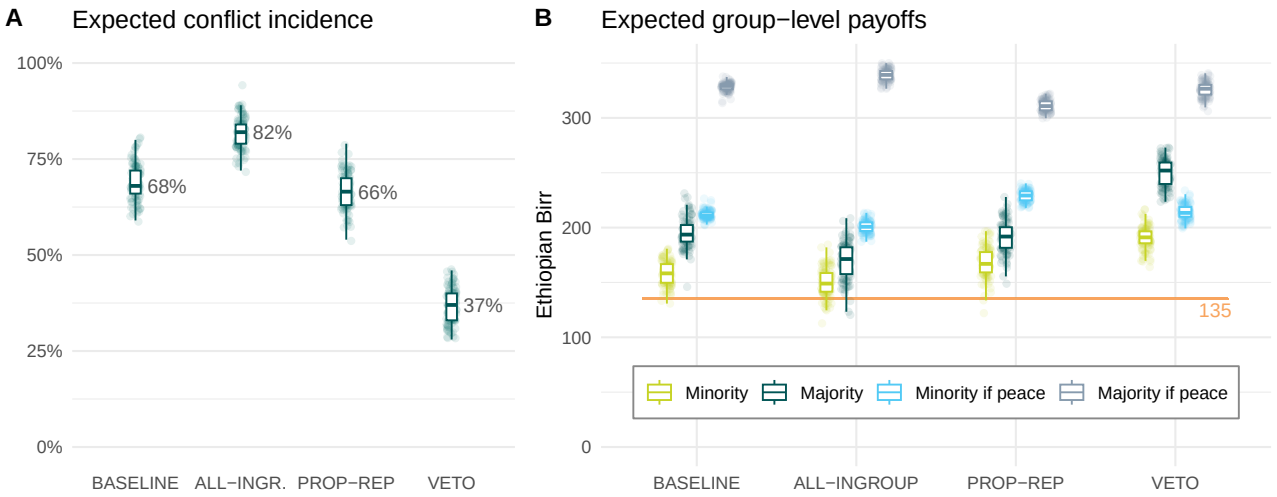

Figure 2: ***Panel A****: expected conflict incidence rates by experimental condition;* ***Panel B****: expected payoffs by experimental condition; the values (dots) in both panels result from a simple Monte Carlo simulation matching randomly chosen groups of the same condition into a 'mini-society', determining whether or not conflict is triggered based on participants' group-level decisions, calculating the resulting payoffs (labeled 'Minority' and 'Majority'), and the payoffs that could have been obtained based on participants' individual voting and group-level allocation decisions in case no conflict was triggered (labeled 'Minority if peace' and 'Majority if peace'); the horizontal orange line at 135 Ethiopian Birr in Panel B marks the expected group-level conflict payoff; for generating the Figure, the simulation was run 100 times for 100 random matchings each; the plotted boxes summarize distribution information following Tukey's definitions; the simulation code is available in the replication package.*

where a low (zero) democracy payoff causes conflict to be more attractive for the minority. However, the absence of sizable differences in the minority's democracy payoffs across these three treatments is consistent with the lack of sizable treatment effects of ALL-INGROUP and PROP-REP on conflict incidence relative to BASELINE.

For the following analyses it is important to keep in mind that decisions in the VETO condition structurally differ from those in the other treatments. In VETO, we elicited conflict choices conditional on the other group's proposed resource allocation, yielding five conditional conflict choices per group. By contrast, in the other treatments we collected a single unconditional conflict choice per group. Accordingly, in several analyses below, VETO must be treated separately from the other conditions.

Conflict choices by minorities and majorities. Figure 3 visualizes group-level conflict choices for BASELINE, ALL-INGROUP, and PROP-REP. Pooling across treatments and rounds, minority groups were significantly more likely to trigger conflict than majorities (two-tailed Fisher's exact test, $P < 0.001$, $OR = 9.51$, 95% CI $[4.11, 24.91]$). The same pattern holds within each treatment (all three respective two-tailed Fisher's exact tests have P's < 0.001 and OR's > 5.7). In line with the conflict choice, a significantly smaller share of minority members expected their group to win the election (25.8% vs. 76.8% for majority group members; $P < 0.001$, $OR = 0.11$, 95% CI $[0.07, 0.17]$); also see the individual-level analysis below.

Conditional on group size, we observe no significant differences in group-level conflict choices across the three treatments (minorities: BASELINE vs. ALL-INGROUP $P = 1.0$, $OR = 0.76$, 95% CI $[0.06, 6.07]$, BASELINE vs. PROP-REP $P = 1.0$, $OR = 0.80$, 95% CI $[0.10, 5.12]$; majorities: BASELINE vs. ALL-INGROUP $P = 0.43$, $OR = 0.45$, 95% CI $[0.04, 3.47]$, BASELINE vs. PROP-REP $P = 0.31$, $OR = 3.39$, 95% CI $[0.36, 31.28]$; all two-sided Fisher's exact tests). This implies that, as far as our statistical power allows us to say so, the PROP-REP manipulation did not have the appeasing effect on minorities that theory predicts. Likewise, removing ethnic tensions in ALL-INGROUP had no measurable effect on group-level conflict choices. The latter aligns with the theory prediction, but

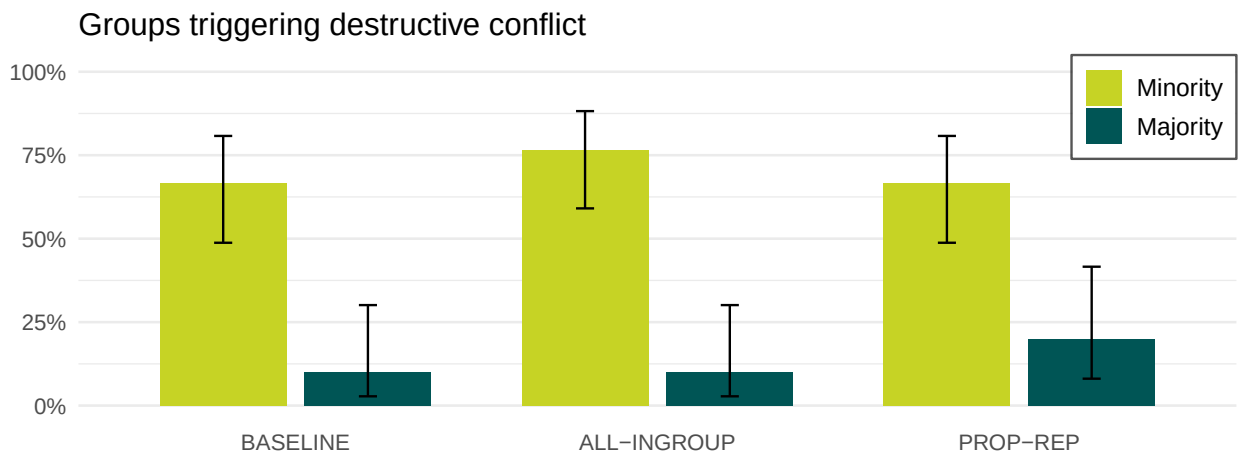

Figure 3: *Group-level choices of conflict vs. peace in treatments BASELINE, ALL-INGROUP and PROPREP; we have observations for 30 minority groups and 20 majority groups per treatment; error bars indicate 95% Wilson confidence intervals.*

may behaviorally still be surprising. As noted above, the lack of a treatment effect of PROP-REP is consistent with the relatively high peaceful payoffs for minorities under all three treatments considered here. Taken together, this points to a general driver of the minority's conflict choices across treatments — one that increased voting power in PROP-REP does not (sufficiently) address.

Resource sharing in VETO. The reason why our VETO treatment was able to successfully reduce conflict incidence can be seen from Figure 4 which plots the share of allocation proposals with their respective acceptance rates by the opponent group, broken down by the proposing group's size. Both majorities and minorities most frequently proposed 'equal,' followed by the theory prediction 'more'; 'all' was rarely proposed, 'none' and 'less' were never proposed. (Allocations are referred to from the perspective of the proposer here — for example, proposal 'more' means 402 ETB for the proposing group and 138 ETB for the responding group.)

Overall, groups' behavior in VETO is quite closely in line with theory, except for two deviations. First, responders quite often rejected 'none,' which would allocate the full 540 ETB to the responding group. However, when we look at our participants' beliefs, it is apparent that almost no one expected the proposing group to actually offer the full 540 ETB (only three out of 119 respective beliefs we recorded, so only 2.5%).

Second, more than half of the groups rejected allocation 'more,' with minority groups being even more likely to do so than majority groups (minorities: 83%, majorities: 60%; two-tailed Fisher's exact test, $P = 0.10$). This higher-than-predicted 'demand' by responding groups can explain the non-negligible conflict incidence in VETO. Analogous to rejections of positive offers in Ultimatum Games, a majority of groups in our study triggered conflict in response to 'unfair' offers by the election winners. The high frequency of equal sharing, in turn, may reflect that many participants anticipated that lower offers would trigger conflict — we did not collect data to directly test this conjecture, though. However, such accommodating behavior of proposers — alongside responder rejections that favor inefficient conflict at the cost of lower payoffs — is consistent with the pattern derived theoretically by Konrad and Morath (2016a, 2016b) based on arguments of evolutionary stability.

3.2 Additional results

The group-level choices we just analyzed for our main results were the outcomes of group discussions — before engaging in these discussions, our participants had already made individual-level decisions

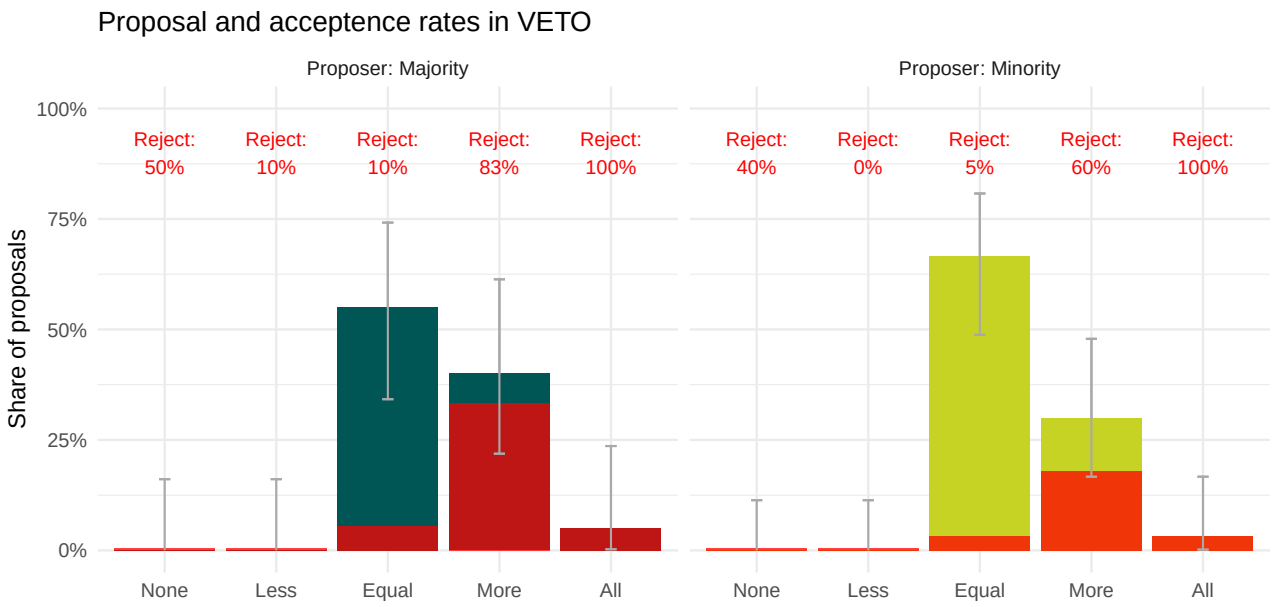

Figure 4: *The figure shows proposal and acceptance rates in the VETO treatment for the five possible resource allocations, broken down by the proposing group's size, that is: proposals by majority groups are matched with their respective acceptance rate by minority groups and vice versa; allocations are referred to from the perspective of the proposing group and imply the following group-level payoffs if implemented: 'none' = 0/540, 'less' = 138/402, 'equal' = 324/216 if the proposing group is a majority and 216/324 otherwise, 'more' = 402/138, 'all' = 540/0, where the first amount is the amount kept by the proposer.*

and stated their beliefs for all stages of the experimental game. We now turn to analyzing these individual-level data.

Conflict choices and expectations. Table 3 shows the results of six logistic regressions predicting whether participants in the treatments BASELINE (reference), ALL-INGROUP, and PROP-REP individually preferred to trigger conflict, models (1)-(3), and whether they expected the opponent group to trigger conflict, models (4)-(6). Models (1)-(3) on the choice to trigger conflict corroborate the strong minority effect across treatments discussed above.

Several additional effects can be observed. First, all models reveal an order effect of game rounds: participants were more likely to trigger conflict the first time they played (round 1) and less likely to expect the opponent group to trigger conflict in round 1. This order effect cannot be attributed to learning about the amount allocated by the opponent, as no feedback was provided between rounds and groups were matched into 'mini-societies' only after the session. Another explanation — which we cannot test due to session-size constraints — takes into account that experimental minorities coincided with ethnic minorities in round 1 so that higher conflict rates in the first round correspond to higher conflict rates in situations where the structural (dis-)advantages modeled in the experiment aligned with political reality.

Second, according to model (3), the expectation that the opponent will trigger conflict is significantly associated with one's own decision to trigger conflict — we cannot infer to one or the other direction of causality here, though. Finally, in models (4)-(6) our treatments ALL-INGROUP and PROP-REP show effects on the beliefs of participants which are in line with the conjectures underlying our treatment design: members of majority groups expected minorities to trigger conflict at lower likelihoods in both treatments relative to BASELINE. Minority members generally expected the opponent group to choose conflict with significantly lower probability than majority members. The estimated treatment effects on minority members' beliefs about opponent groups' conflict choice are statistically indistinguishable from zero, which is consistent with theory. However, even though

Table 3: *Logistic regressions of individual choices to trigger conflict and beliefs about the respective other group triggering conflict controlling for repeated measures within participants via random intercepts using* `glmer` *from package* `lme4` *in R.*

	Dependent variable:					
	Trigger conflict			Expect conflict		
	(1)	(2)	(3)	(4)	(5)	(6)
Minority	2.431^{***}	2.765^{***}	3.265^{***}	-1.068^{***}	-1.552^{***}	-1.277^{**}
	(0.339)	(0.531)	(0.550)	(0.249)	(0.440)	(0.466)
ALL-INGR.	0.001	0.133	0.503	-0.744^{*}	-0.928^{*}	-0.920^{*}
	(0.320)	(0.519)	(0.532)	(0.314)	(0.442)	(0.456)
ALL-INGR. x Minority		−0.215	−0.364		0.294	0.306
		(0.656)	(0.679)		(0.590)	(0.603)
PROP-REP	0.051	0.476	0.917^{+}	-0.759^{*}	-1.317^{**}	-1.280^{**}
	(0.320)	(0.498)	(0.513)	(0.314)	(0.450)	(0.462)
PROP-REP x Minority		−0.718	−1.073		1.084^{+}	0.870
		(0.638)	(0.665)		(0.588)	(0.610)
First round	0.771^{**}	0.777^{**}	0.992^{***}	-0.836^{***}	-0.857^{***}	-0.833^{**}
	(0.265)	(0.267)	(0.282)	(0.244)	(0.248)	(0.257)
Exp. conflict			1.632^{***}			
			(0.333)			
Exp. elect. victory			−0.465			0.558^{+}
			(0.310)			(0.319)
Exp. allocation			−0.897			−0.432
			(0.869)			(0.879)
Constant	-2.035^{***}	-2.242^{***}	-2.875^{***}	1.313^{***}	1.589^{***}	1.309^{*}
	(0.362)	(0.450)	(0.676)	(0.301)	(0.375)	(0.597)
Observations	360	360	351	359	359	351
Log Likelihood	−192.835	−192.150	−171.731	−227.984	−226.105	−217.363
Akaike Inf. Crit.	397.670	400.300	365.463	467.968	468.209	454.725
Bayesian Inf. Crit.	420.987	431.389	407.931	491.268	499.276	493.333
Note:						$^{+}$p<0.10; *p<0.05; **p<0.01; ***p<0.001

the observed belief shifts among majority members may indicate that participants understood the reduced incentive to trigger conflict in the absence of ethnic tensions or a dominant role of the majority, minorities' actual conflict choices remained unaffected by these treatment manipulations.

Table 4: *Linear regressions of individual allocation choices (or proposals in VETO) and beliefs about the respective other group's allocation choice (or proposal in VETO) controlling for repeated measures within participants via random intercepts using* `lmer` *from package* `lme4` *in R.*

	Dependent variable:					
	Allocation chosen			Allocation expected		
	(1)	(2)	(3)	(4)	(5)	(6)
Minority	-0.020^{+}	-0.042^{*}	-0.030	0.006	0.033	0.018
	(0.010)	(0.020)	(0.022)	(0.012)	(0.024)	(0.025)
ALL-INGR.	-0.013	-0.017	-0.009	0.039^{+}	0.058^{*}	0.056^{*}
	(0.023)	(0.027)	(0.028)	(0.022)	(0.028)	(0.028)
ALL-INGR. x Minority		0.008	-0.002		-0.039	-0.037
		(0.029)	(0.029)		(0.034)	(0.033)
PROP-REP	-0.058^{*}	-0.079^{**}	-0.075^{**}	0.017	0.029	0.026
	(0.023)	(0.027)	(0.027)	(0.022)	(0.028)	(0.028)
PROP-REP x Minority		0.042	0.049^{+}		-0.025	-0.027
		(0.029)	(0.029)		(0.034)	(0.034)
VETO	0.006	-0.013	-0.006	0.027	0.050^{+}	0.043
	(0.023)	(0.027)	(0.028)	(0.022)	(0.028)	(0.028)
VETO x Minority		0.037	0.033		-0.046	-0.043
		(0.029)	(0.029)		(0.034)	(0.033)
First round	0.034^{***}	0.034^{***}	0.038^{***}	0.015	0.015	0.013
	(0.010)	(0.010)	(0.010)	(0.012)	(0.012)	(0.012)
Exp. elect. victory			0.017			-0.028^{+}
			(0.015)			(0.016)
Exp. allocation			-0.076^{+}			
			(0.044)			
Constant	0.572^{***}	0.583^{***}	0.599^{***}	0.440^{***}	0.426^{***}	0.451^{***}
	(0.018)	(0.020)	(0.031)	(0.018)	(0.020)	(0.025)
Observations	480	480	471	472	472	471
Log Likelihood	238.796	232.129	224.175	212.703	206.053	203.521
Akaike Inf. Crit.	-461.593	-442.258	-422.350	-409.406	-390.106	-383.043
Bayesian Inf. Crit.	-428.202	-396.346	-368.337	-376.150	-344.379	-333.185
Note:						$^{+}$p<0.10; *p<0.05; **p<0.01; ***p<0.001

Allocation choices and expectations. Table 4 shows the results of six linear regressions predicting (i) which allocation participants individually chose for implementation (or as their proposal in VETO) and (ii) beliefs about which allocation the opponent group would implement (or propose to implement in VETO). To simplify this analysis, we code allocations from the perspective of the participant's group as 0 = 'none', 0.25 = 'less', 0.5 = 'equal', 0.75 = 'more', and 1 = 'all'. As the estimated intercepts show, participants mostly claimed 'equal' or 'more' — intercepts around 0.58 in models (1)-(3) — and (correctly) expected the respective other group to do the same, resulting in expected amounts received of 'less' or 'equal' — intercepts around 0.44 in models (4)-(6).

In addition, we observe three noteworthy effects. First, allocations chosen in the first round of the game — where experimental minorities and majorities coincided with the real-world size

relations between ethnic minority and majority — tended to be less generous toward the opponent. Second, in PROP-REP participants kept slightly less for themselves, i.e., chose the 'equal' allocation more often. This runs contrary to the theory prediction but is consistent with a stronger perceived personal responsibility for the societal outcome in PROP-REP, prompting individuals to choose 'fairer' allocations. Third, majority group members expected slightly more generous allocations from the opponent group in ALL-INGROUP even though actual allocations were not more generous than the already higher-than-predicted allocations in BASELINE.

As discussed, the relatively generous allocations do not justify choosing conflict on purely material grounds — namely, to avoid expropriation by the majority. Given that the conflict choices do not depend on the actual democracy payoff but on the individual expectations thereof, one might have conjectured that groups are driven into conflict based on biased beliefs about how they would be treated by the election winners. However, when we treat participants' stated beliefs about the opponent's allocation as a reliable proxy for expected subgame payoffs, the accuracy of individual expectations regarding their democracy payoff rules out such a belief-based mechanism explaining high conflict rates in our context. These correct expectations of rather generous allocations by opponent groups may be surprising, given that our experiment precludes learning opponents' actual choices. We do not want to over-interpret this finding, though, since elicited beliefs about others' choices often correlate with own behavior in these types of experiments. Therefore, they might not fully capture minority members' concerns about submitting to a tyranny of the majority. Moreover, the observed ex post rejection behavior in VETO (see Figure 4) may indicate that minorities did not consider the expected democracy outcomes in PROP-REP acceptable even when holding correct beliefs.

Group discussions. Recall that participants needed to aggregate their individual decisions into group decisions via discussion whenever there was no unanimity within a group regarding the decision in question to begin with. For the group-level decision whether or not to trigger conflict this was necessary for 26 of 50 majority groups and 40 of 90 minority groups in BASELINE, ALL-INGROUP, and PROP-REP. When we test for differences between group sizes in the final decision to trigger conflict among these non-unanimous groups, we find that discussions among minorities tended to result in triggering conflict more often than discussions among majorities (two-tailed Fisher's exact test, $P = 0.08$, $OR = 2.7$, 95% CI $[0.87, 9.01]$) — that is, the discussion stage tended to amplify aggressive choice among minorities. This trend also becomes statistically significant when controlling for treatment and round of the game using a logistic regression. We do not observe any differences in this tendency between treatments, though.

Expected election outcomes and voting behavior. Lastly, let us briefly look at participants' voting behavior and respective beliefs. Regarding expectations, pooling across treatments and rounds of the game, participants in minority groups were significantly less likely to expect their own group to win (25.8% vs. 76.8% for majority members; two-tailed Fisher's exact test: $P < 0.001$, $OR = 0.11$, 95% CI $[0.07, 0.17]$). Thus, by and large, participants' beliefs indicate that they understood that minorities were structurally disadvantaged in the election stage. Regarding their voting behavior, participants mostly behaved in line with theory: pooling across treatments and rounds, participants voted for their own group 86% of the time when playing in a majority group, compared to 68% when playing in a minority group. This difference is significant (two-tailed Fisher's exact test, $P < 0.001$, $OR = 0.34$, 95% CI $[0.21, 0.55]$). However, voting for the own group also is much less important when expecting the own group to lose anyway, i.e., for the non-pivotal votes of minority members. Overall, thus, participants' voting behavior indicates that they understood the 'political economy' of our experimental 'mini-societies' and also wanted their groups to win the election.

4 Discussion and conclusion

We set out to study the roles of ethnic minorities' prospective influence on political outcomes and of preexisting grievances between ethnic factions in shaping groups' willingness to commit themselves to democratic forms of collective decision-making. Our micro-level results clearly establish a causal effect of being in a minority position on the reluctance to commit to peaceful, democratic procedures of collective decision-making when these procedures do not guarantee a sufficient influence on outcomes for the minority. This finding seems predominantly driven by the structural disadvantages that minorities faced under two of three democratic regimes we tested. Removing preexisting ethnic tensions between minority and majority did not alleviate this problem in our setting. With all due interpretative caution, this result corroborates theories that view ethnic divisions as being opportunistically instrumentalized by malicious leaders and weakens those resting on ideas of insurmountable 'primordial hatreds' between ethnic groups (Esteban and Ray, 2011; Esteban et al., 2012b; Fearon and Laitin, 2000, 2003; Ray and Esteban, 2017).

Moreover, our results suggest that subtle procedural adjustments, such as changing the aggregation rule for votes, may have only insufficient impact, even if these favor the minority. In our PROP-REP condition, for example, the adjusted voting procedure increased minorities' *ex ante* expected payoffs, but did not eliminate the majority's advantage in the democratic allocation mechanism and was still predicted to yield highly imbalanced eventual allocations *ex post*. Together with its weak effect on experimentally observed payoffs under democracy, this may explain its failure to appease minorities.

By contrast, our VETO condition demonstrates that collective decision-making procedures granting the minority more direct *ex post* control over the outcome implemented by the majority can facilitate democratic compromising and substantially reduce inefficient conflict even when ethnic tensions are high (Juon and Bochsler, 2022; Mueller and Rohner, 2018). Unlike the other conditions we examined, the *ex post* control over the allocation introduced in VETO neither relies on beliefs about resource allocations by election winners nor does it require sufficient trust in the allocation procedures — metaphorically speaking, VETO facilitated covenants *with* swords. This may be a reason for its effectiveness in reducing conflict incidence. Despite recent setbacks on the global stage, this renewed proof of concept can maybe encourage future democratization efforts.

Backmatter

This article has accompanying supplementary materials. For ease of peer review, we include them below. All supplementary materials are supposed to appear as supplementary appendices upon publication.

- S1: Description of theoretical model and derivation of benchmark predictions
- S2: Detailed statistical analyses and robustness checks of our motivating evidence

Acknowledgments

We thank Monica Beeder and audiences at MACIES Marburg, UM-BIC and MU-CEN Maastricht, Max Planck Institute for Tax Law & Public Finance Munich, ICSD 2022 Copenhagen, Conflict Lab Leiden, Global Seminar on Contests & Conflict, 2023 Social Science Field Committee meeting of the German Economic Association in Berlin, WWZ Basel, and the Cooperation Colloquia Series for comments.

Declarations

- **Funding:** FM received funding from the German Research Foundation (DFG, grant MO 2364); LG received no specific funding from third parties; HR received no specific funding from third parties for this project.
- **Conflict of interests:** The authors declare no conflict of interest.
- **Preregistration:** The preregistration of this study is available via doi.org/10.1257/rct.4847-1.1
- **Author contributions:** The authors consider their contributions equal and are listed in alphabetical order.
- **Data and code:** All data and code required to reproduce the results reported in this paper can be accessed via osf.io/9mhcs/.
- **Ethics:** Data collection for this study was conducted in 2019 in full compliance with all institutional ethics requirements of that time. None of the research methods used are restricted or prohibited in the EU, USA, or Ethiopia. Ethics approval was obtained from the joint Ethics Committee of the Faculty of Economics and Business Administration of Goethe University Frankfurt and the Gutenberg School of Management and Economics of Johannes Gutenberg University Mainz (approval letters Sept. 24, 2019, and Oct. 16, 2019). Moreover, approval from local institutions was obtained via the Department of Anthropology at Hawassa University and the South Omo Research Center in Jinka. Participants were voluntary, adult university students. They provided informed consent and were monetarily compensated for their participation in line with local standards. The research involved no deception.

References

Alesina, A., Devleeschauwer, A., Easterly, W., Kurlat, S., & Wacziarg, R. (2003). Fractionalization. *Journal of Economic Growth*, *8*(2), 155–194. https://doi.org/10.1023/A:1024471506938

Awasa Guardian. (2019). Hadicho boycott sidama referendum in ethiopia. *Awasa Guardian*. https://awasaguardian.com/index.php/2019/11/14/hadicho-boycott-sidama-referendum-in-ethiopia-ag/

Bauer, M., Blattman, C., Chytilov, J., Henrich, J., Miguel, E., Mitts, T., & Chytilová, J. (2016). Can war foster cooperation? *Journal of Economic Perspectives*, *30*(3), 249–274. https://doi.org/10.1257/jep.30.3.249

Bauer, M., Cahlíková, J., Chytilová, J., & Želinský, T. (2018). Social contagion of ethnic hostility. *Proceedings of the National Academy of Sciences of the United States of America*, *115*(19), 4881–4886. https://doi.org/10.1073/pnas.1720317115

Bauer, M., & Chytilová, J. (2025). Ethnic hostility and conflict. https://cepr.org/publications/dp20402

BBC. (2019). Ethiopia referendum: Dozens killed in sidama clashes. *bbc.com*. https://www.bbc.com/news/world-africa-49070762

Beeder, M., Aalen, L., Kotsadam, A., & Villanger, E. (2025). Effects of jobs on ethnic switching – evidence from a field experiment in ethiopia. *Journal of Development Studies*, *61*(9), 1404–1421. https://doi.org/10.1080/00220388.2025.2467650

Blattman, C., & Miguel, E. (2010). Civil war. *Journal of Economic Literature*, *48*(1), 3–57. https://doi.org/10.1257/jel.48.1.3

Böhm, R., Fleiß, J., & Rybnicek, R. (2021). On the stability of social preferences in inter-group conflict: A lab-in-the-field panel study. *Journal of Conflict Resolution*, *65*(6), 1215–1248. https://doi.org/10.1177/0022002721994080

Böhm, R., Glowacki, L., Rusch, H., & Thielmann, I. (2025). Untangling altruism and parochialism in human intergroup conflict. *iScience*, *28*(12), 113978. https://doi.org/10.1016/j.isci.2025.113978

Böhm, R., Rusch, H., & Baron, J. (2020). The psychology of intergroup conflict: A review of theories and measures. *Journal of Economic Behavior and Organization*, *178*, 947–962. https://doi.org/10.1016/j.jebo.2018.01.020

Burgess, R., Jedwab, R., Miguel, E., Morjaria, A., & Padró i Miquel, G. (2015). The value of democracy: Evidence from road building in kenya. *American Economic Review*, *105*(6), 1817–1851. https://doi.org/10.1257/aer.20131031

Dechenaux, E., Kovenock, D., & Sheremeta, R. M. (2015). A survey of experimental research on contests, all-pay auctions and tournaments. *Experimental Economics*, *18*(4), 609–669. https://doi.org/10.1007/s10683-014-9421-0

de Toqueville, A. (1835). *Democracy in america* (Vol. 1). Saunders and Otley. https://www.gutenberg.org/files/815/

Doğan, G., Glowacki, L., & Rusch, H. (2018). Spoils division rules shape aggression between natural groups. *Nature Human Behaviour*, *2*(5), 322–326. https://doi.org/10.1038/s41562-018-0338-z

Doğan, G., Glowacki, L., & Rusch, H. (2022). Are strangers just enemies you have not yet met? group homogeneity, not intergroup relations, shapes ingroup bias in three natural groups. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, *377*(1851), 20210419. https://doi.org/10.1098/rstb.2021.0419

Eisenstadt, T. A., & Maboudi, T. (2019). Being there is half the battle: Group inclusion, constitution-writing, and democracy. *Comparative Political Studies*, *52*(13-14), 2135–2170. https://doi.org/10.1177/0010414019830739

Esteban, J., Mayoral, L., & Ray, D. (2012a). Ethnicity and conflict: An empirical study. *American Economic Review*, *102*(4), 1310–1342. https://doi.org/10.1257/aer.102.4.1310

Esteban, J., Mayoral, L., & Ray, D. (2012b). Ethnicity and conflict: Theory and facts. *Science*, *336*(6083), 858–865. https://doi.org/10.1126/science.1222240

Esteban, J., & Ray, D. (2008). On the salience of ethnic conflict. *American Economic Review*, *98*(5), 2185–2202. https://doi.org/10.1257/aer.98.5.2185

Esteban, J., & Ray, D. (2011). A model of ethnic conflict. *Journal of the European Economic Association*, *9*(3), 496–521. https://doi.org/10.1111/j.1542-4774.2010.01016.x

Ethiopian Statistical Service. (2007). Population and housing census 2007: Snnpr statistical. http://www.statsethiopia.gov.et/wp-content/uploads/2019/06/Population-and-Housing-Census-2007-SNNPR-Statistical.pdf

Fearon, J. D., & Laitin, D. D. (1996). Explaining interethnic cooperation. *American Political Science Review*, *90*(4), 715–735. https://doi.org/10.2307/2945838

Fearon, J. D., & Laitin, D. D. (2000). Violence and the social construction of ethnic identity. *International Organization*, *54*(4), 845–877. https://doi.org/10.1162/002081800551398

Fearon, J. D., & Laitin, D. D. (2003). Ethnicity, insurgency, and civil war. *American Political Science Review*, *97*(01), 75–90. https://doi.org/10.1017/S0003055403000534

Feddersen, T., Gailmard, S., & Sandroni, A. (2009). Moral bias in large elections: Theory and experimental evidence. *American Political Science Review*, *103*(2), 175–192. https://doi.org/10.1017/S0003055409090224

Federal Democratic Republic of Ethiopia. (n.d.). Constitution of the federal democratic republic of ethiopia. https://www.wipo.int/wipolex/en/legislation/details/7438

Gebreselassie, E. (2019). Hope, uncertainty as ethiopia's sidama gear up for statehood vote. *Al Jazeera*. https://www.aljazeera.com/news/2019/11/19/hope-uncertainty-as-ethiopias-sidama-gear-up-for-statehood-vote

Glowacki, L., Morath, F., & Rusch, H. (2019). Effective mechanisms to resolve resource allocation problems (preregistration). *AEA RCT Registry*. https://doi.org/10.1257/rct.4847-1.0

Habtu, A. (2003). Ethnic federalism in ethiopia: Background, present conditions and future prospects. *International Conference on Development Studies in Ethiopia*. https://scholarworks.wmich.edu/africancenter_icad_archive/57/

Herbst, L., Konrad, K. A., & Morath, F. (2017). Balance of power and the propensity of conflict. *Games and Economic Behavior*, *103*, 168–184. https://doi.org/10.1016/j.geb.2015.12.013

Houle, C. (2015). Ethnic inequality and the dismantling of democracy: A global analysis. *World Politics*, *67*(3), 469–505. https://doi.org/10.1017/S0043887115000106

Houle, C., Kenny, P. D., & Park, C. (2019). The structure of ethnic inequality and ethnic voting. *The Journal of Politics*, *81*(1), 187–200. https://doi.org/10.1086/700200

International IDEA. (2024). He global state of democracy indices: 1975-2023: V. 8. Retrieved February 10, 2025, from https://www.idea.int/democracytracker/gsod-indices/

Jackson, M. O., & Morelli, M. (2011). The reasons for wars: An updated survey. In C. J. Coyne (Ed.), *The handbook on the political economy of war*. Edward Elgar. https://doi.org/10.4337/9781849808323.00009

Juon, A., & Bochsler, D. (2022). The two faces of power-sharing. *Journal of Peace Research*, *59*(4), 526–542. https://doi.org/10.1177/00223433211037244

Ke, C., Morath, F., & Seelos, S. (2023). Do groups fight more? experimental evidence on conflict initiation. https://ideas.repec.org/p/inn/wpaper/2023-16.html

Kimbrough, E. O., Laughren, K., & Sheremeta, R. (2020). War and conflict in economics: Theories, applications, and recent trends. *Journal of Economic Behavior and Organization*, *178*, 998–1013. https://doi.org/10.1016/j.jebo.2017.07.026

Kimbrough, E. O., & Sheremeta, R. M. (2013). Side-payments and the costs of conflict. *International Journal of Industrial Organization*, *31*(3), 278–286. https://doi.org/10.1016/j.ijindorg.2012.01.005

Kimbrough, E. O., & Sheremeta, R. M. (2014). Why can't we be friends? entitlements and the costs of conflict. *Journal of Peace Research*, *51*(4), 487–500. https://doi.org/10.1177/0022343314524428

Kimbrough, E. O., Sheremeta, R. M., & Shields, T. W. (2014). When parity promotes peace: Resolving conflict between asymmetric agents. *Journal of Economic Behavior and Organization*, *99*, 96–108. https://doi.org/10.1016/j.jebo.2013.12.021

Konrad, K. A., & Morath, F. (2016a). Bargaining with incomplete information: Evolutionary stability in finite populations. *Journal of Mathematical Economics*, *65*, 118–131. https://doi.org/10.1016/j.jmateco.2016.06.001

Konrad, K. A., & Morath, F. (2016b). Evolutionary determinants of war. *Defence and Peace Economics*, *27*(4), 520–534. https://doi.org/10.1080/10242694.2014.995890

Lange, M., Jeong, T., & Amasyali, E. (2021). The colonial origins of ethnic warfare: Re-examining the impact of communalizing colonial policies in the british and french empires. *International journal of comparative sociology*, *62*(2), 141–165. https://doi.org/10.1177/00207152211023793

Laurent-Lucchetti, J., Rohner, D., & Thoenig, M. (2024). Ethnic conflict and the informational dividend of democracy. *Journal of the European Economic Association*, *22*(1), 73–116. https://doi.org/10.1093/jeea/jvad031

Leipziger, L. E. (2024). Ethnic inequality, democratic transitions, and democratic breakdowns: Investigating an asymmetrical relationship. *The Journal of Politics*, *86*(1), 291–304. https://doi.org/10.1086/726949

Lopez, A. C., & Johnson, D. D. (2020). The determinants of war in international relations. *Journal of Economic Behavior and Organization*, *178*, 983–997. https://doi.org/10.1016/j.jebo.2017.09.010

McBride, M., & Skaperdas, S. (2014). Conflict, settlement, and the shadow of the future. *Journal of Economic Behavior and Organization*, *105*, 75–89. https://doi.org/10.1016/j.jebo.2014.04.023

McGauvran, R. J., & Stewart, B. (2021). Turning discontent into votes: Economic inequality and ethnic outbidding. *Research & Politics*, *8*(4), 205316802110678. https://doi.org/10.1177/20531680211067881

Morton, R. B., & Ou, K. (2015). What motivates bandwagon voting behavior: Altruism or a desire to win? *European Journal of Political Economy*, *40*, 224–241. https://doi.org/10.1016/j.ejpoleco.2015.04.009

Mueller, H., & Rohner, D. (2018). Can power-sharing foster peace? evidence from northern ireland*. *Economic Policy*, *33*(95), 447–484. https://doi.org/10.1093/epolic/eiy007

Panzano, G. (2023). Do mutually reinforcing cleavages harm democracy? inequalities between ethnic groups and autocratization. *Democratization*, 1–25. https://doi.org/10.1080/13510347.2023.2264196

Ray, D., & Esteban, J. (2017). Conflict and development. *Annual Review of Economics*, *9*(1), 263–293. https://doi.org/10.1146/annurev-economics-061109-080205

Restrepo-Plaza, L., & Fatas, E. (2022). When ingroup favoritism is not the social norm a lab-in-the-field experiment with victims and non-victims of conflict in colombia. *Journal of Economic Behavior and Organization*, *194*, 363–383. https://doi.org/10.1016/j.jebo.2021.12.025

Reynal-Querol, M. (2003). Ethnicity, political systems, and civil wars. *Journal of Conflict Resolution*, *46*(1), 29–54. https://doi.org/10.1177/0022002702046001004

Rusch, H. (2023). The logic of human intergroup conflict: Knowns and known unknowns. https://doi.org/10.26481/umagsb.2023014

Schaub, M. (2017). Threat and parochialism in intergroup relations: Lab-in-the-field evidence from rural georgia. *Proceedings of the Royal Society B – Biological Sciences*, *284*(1865). https://doi.org/10.1098/rspb.2017.1560

Sheremeta, R. M. (2018). Behavior in group contests: A review of experimental research. *Journal of Economic Surveys*, *32*(3), 683–704. https://doi.org/10.1111/joes.12208

Shoup, B. D. (2018). Ethnic polarization and the limits of democratic practice. *Democratization*, *25*(8), 1419–1440. https://doi.org/10.1080/13510347.2018.1475474

Tronvoll, K., Boroje, F., & Tezera, K. (2020). The sidama's quest for self-rule: A study of the referendum on regional statehood. https://www.eip.org/wp-content/uploads/2020/06/Sidamas-quest-for-self-rule.pdf

Tyran, J.-R., & Wagner, A. K. (2019). Experimental evidence on expressive voting. In R. D. Congleton, B. Grofman, & S. Voigt (Eds.), *The oxford handbook of public choice, volume 2* (pp. 927–940). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190469771.013.49

Vogt, M. (2019). *Mobilization and conflict in multiethnic states*. Oxford University Press.

Werner, K., & Lambsdorff, J. G. (2020). Emotional numbing and lessons learned after a violent conflict – experimental evidence from ambon, indonesia. *Journal of Development Studies*, *56*(5), 859–873. https://doi.org/10.1080/00220388.2019.1590550

Wilson, M. C., Morgan, R., Medzihorsky, J., Maxwell, L., Maerz, S. F., Lührmann, A., Lindenfors, P., Edgell, A. B., Boese, V. A., & Lindberg, S. I. (2020). Successful and failed episodes of democratization: Conceptualization, identification, and description. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3536827

Supplements

S1 Theoretical model and predictions

S1.1 Basic setup

Two groups A and B with $n_A = 3$ and $n_B = 2$ members, respectively, must decide how to divide a given amount V of money: through a voting mechanism or through inefficient conflict which dissipates part of the resources. In stage 1 of the game, the groups $G \in \{A, B\}$ independently and simultaneously make a choice $z_G \in \{0, 1\}$ where $z_G = 0$ means that group G opts for the voting mechanism and $z_G = 1$ means that group G opts for conflict. If $z_A = z_B = 0$, then V is allocated in the 'voting subgame' whereas if $z_G = 1$ for at least one group, the groups enter into the 'conflict subgame'. The choice of z_G is made jointly by all members $g \in G$.

Conflict subgame If at least one group chooses conflict, the prize V is allocated based on the rules of a standard Tullock contest. Each group $G \in \{A, B\}$ must independently choose a joint effort $e_G \geq 0$ whose cost is normalized to the effort itself. For effort choices (e_A, e_B), group G wins the prize with probability

$$p_G = \begin{cases} \frac{e_G}{e_A + e_B} & \text{if } e_A + e_B > 0, \\ \frac{1}{2} & \text{otherwise.} \end{cases}$$

The expected conflict payoff for group G is hence

$$p_G V - e_G.$$

Assuming that the group members equally share the cost of effort (e_G) and, in case of victory, the prize V, maximization to individual expected conflict payoff corresponds to maximization of group payoff. Thus, the equilibrium efforts correspond to the equilibrium efforts of a two-player standard Tullock lottery contest and are equal to

$$e_A^* = e_B^* = \frac{V}{4}.$$

In equilibrium both groups win with probability $p_G = 1/2$ and realize an expected payoff of $V/4$; a share $\gamma = 1/2$ of the prize is "dissipated" through the effort costs.

In the experiment, to reduce the complexity of the decision-making, the participants do not make a choice in the conflict subgame. Instead, the equilibrium prize dissipation, win probabilities, and expected conflict payoff are imposed directly: In the experiment, the conflict destroys half of the prize (the "prize dissipation" due to effort costs) and allocates the remaining amount of $V/2$ with equal probability to the two groups.[1] Upon winning, group members share the prize equally, that is, the expected per-capita payoff from conflict is higher in the minority group than in the majority group, which is a standard result in group contests about a prize of private-good nature.[2]

Voting subgame If neither of the groups chooses conflict, the game enters into the voting subgame where the individuals elect one group to determine the allocation of V. This subgame proceeds in two stages. First, each group member $g \in G$ casts a vote $v_g \in \{A, B\}$ for one of the groups. These

[1] This means a group's conflict payoff in the experiment is either $V/2$ or 0 whereas the theory prediction is a group payoff of $V - V/4 = 3V/4$ or $-V/4$, that is, includes the possibility of a negative payoff, which our experimental implementation rules out for reasons of feasibility.

[2] If the group members choose their efforts independently and non-cooperatively, free-riding would cause the equilibrium win probability and expected group payoff to be *lower* for the larger group A than for group B. Moreover, the equilibrium prize dissipation would only be $V/(n_A + n_B) < V/2$ in this case. Possible complementarities of efforts within each group would countervail the strategic disadvantage of the larger group.

decisions are made simultaneously and independently.

The second stage is the allocation stage. Here, the group $\mathcal{G} \in \{A, B\}$ that has received a majority of the votes (more than 50%) decides on a split characterized by a resource share $s_{\mathcal{G}} \in [0, 1]$ for the own group, that is, allocates an amount $s_{\mathcal{G}} V$ to the own group and an amount $(1 - s_{\mathcal{G}})\, V$ to the other group. This second decision is made jointly by all members $g \in \mathcal{G}$.

Payoffs in the voting subgame are $s_{\mathcal{G}} V / n_{\mathcal{G}}$ for each member of group $\mathcal{G}$ that chose the allocation and $(1 - s_{\mathcal{G}})\, V / n_{\tilde{\mathcal{G}}}$ for each member of group $\tilde{\mathcal{G}} \neq \mathcal{G}$ that lost the election. This ends the game.

Solving the game by backward induction, in the voting subgame, the winning group's proposal should allocate zero to the other group. Anticipating this, each individual should vote for her own group and the majority group A should win. Thus, in stage 1, the minority group B (with $n_B < n_A$) should choose conflict and the majority group A should choose the voting subgame in equilibrium.[3]

S1.2 Experimental conditions

BASELINE Our baseline condition follows the rules of the game described in S1.1, with three procedural differences. First, the group members have to reveal individually preferred choices on conflict (z_g) and peaceful resource allocations (s_g) before the aggregation of preferences within each group takes place. Second, as outlined above, the conflict subgame does not involve actual choices of the participants but directly implements the probabilistic theory outcome. Third, the choices are made based on a 'strategy method' where all necessary choices are collected independently for both groups A and B and are matched only afterwards. The members of groups A and B are recruited from two different ethnic groups and this is common knowledge.

In step 1 of the BASELINE treatment, each participant g is asked to make three choices: (i) a choice $z_g \in \{0, 1\}$ on the preferred allocation mechanism (voting or conflict); (ii) a vote $v_g \in \{A, B\}$ in case the game enters into the voting subgame; and (iii) an allocation proposal s_g for the own group's resource share in case that, in the voting subgame, g's group wins the election. (Due to the use of the strategy method, the order of these choices does not matter. In the experiment we elicit these choices in reverse order to facilitate participants' understanding of subgame perfection in the sense that the choice of z_g should reflect the expectations of the split proposals.)

The allocation proposal s_g is chosen from the set

$$\left\{0, 0.25, \frac{n_G}{n_A + n_B}, 0.75, 1\right\}.$$

We only allow for five possible split proposals in order to simplify decision-making for the participants. Apart from the high-inequality proposals, $s_g \in \{0, 1\}$, which reflect the equilibrium outcomes in the respective subgames, and a proposal that implements perfect payoff equality at the individual level, $s_g = n_G / (n_A + n_B)$, we include two 'intermediate' proposals with lower inequality, $s_g \in \{0.25, 0.75\}$. These are determined based on the disadvantaged group's expected conflict payoff and become crucial in the VETO condition below.[4] To be precise, for the experiment we chose

[3] To be precise, if group B chooses conflict, group A is indifferent and may opt for conflict as well since B's choice already determines the outcome. A similar comment applies to the voting choice where non-pivotal players may cast an arbitrary vote; in theory, any outcome of the voting game–even a victory of the minority–can be supported as an equilibrium outcome. Our predictions ignore such equilibria as they can be eliminated by appropriate equilibrium refinements or very mild behavioral considerations.

[4] Based on standard theory considerations, there is no particular reason for this specific proposal to be chosen in BASELINE; here, we could have included any proposal with intermediate inequality. Nonetheless, the specific proposals we chose may reflect a salient fairness norm under which the majority allocates to the minority what the latter could have gained under conflict. Similarly, these allocations are appealing if participants' choices are affected by a heuristic that takes into account dynamic aspects such as an *ex post* rejection possibility of the minority which, hence, would need to be offered at least its outside option (as in the treatment condition VETO).

values marginally above 0.25 and marginally below 0.75 in order to avoid a possible indifference of participants choosing solely based on expected monetary payoffs.

In step 2 of BASELINE, the relevant individual decisions are aggregated to the group level. More precisely, the members $g \in G$ must jointly select z_G and s_G from the individual conflict choices $\{z_g\}_{g \in G}$ and individual allocation proposals $\{s_g\}_{g \in G}$, respectively. Requiring that the groups must select one of the individual choices from step 1 gives the participants an incentive to state their preferences truthfully in step 1. The decision on z_G reflects stage 1 above and the allocation proposals are chosen—as part of the strategy method—for the case where the game enters into the voting subgame and the own group wins the majority.

Together with their individual decisions, we elicit the following beliefs of the participants: about the conflict choice of the other group; about which group would win the vote; and about the resource allocation chosen by the other group. This elicitation of beliefs is not incentivized for reasons of tractability.

ALL-INGROUP The first experimental manipulation, condition ALL-INGROUP, concerns the impact of ethnic hostilities on the willingness to resolve the distributional conflict by means of majority voting. The only change of the setup relates to the ethnic background of the two groups: in the ALL-INGROUP condition, the members of groups A and B are from the same ethnicity; this is known to the subjects. None of the theoretical predictions from BASELINE is affected by this manipulation.

PROP-REP The second experimental manipulation, condition PROP-REP, explicitly restricts the decision-making power of the majority by changing the voting rule. Instead of a simple majority rule, we ensure that each individual has an identical impact on the allocation, independent of their group membership (majority or minority). To implement this, we keep the exact same choices as in BASELINE but change the mechanism that determines the allocation proposal that is implemented: instead of counting all votes, we randomly select one of the $n_A + n_B$ votes and let this vote $v_{\tilde{g}} \in \{A, B\}$ decide on the group whose preferred allocation (s_G) is then implemented. Thus, each vote has the same probability of being decisive. This yields an expected payoff of $\frac{n_G}{n_A+n_B} V$ in the voting subgame if all participants act fully selfishly. Hence, the benchmark prediction changes in that minority groups should now opt against conflict, the latter resulting in a payoff of $V/4 < 2V/5$ for their group.

VETO The third manipulation picks up on the idea that conflict can be used as a threat by the minority to ensure a more equitable resource allocation despite the majority's formal decision-making power. In the BASELINE version of the game with majoritarian system, the majority can appropriate all resources since the decisions on conflict vs. democratic allocation are made *ex ante* and are binding, that is, conflict cannot be chosen *conditional* on the allocation selected by the majority. In turn, conflict emerges because the majority cannot credibly commit to implementing an equitable allocation once the democratic allocation mechanism has been accepted. The VETO condition, instead, allows the choice of the preferred allocation mechanism ($z_g \in \{0, 1\}$) to be made conditional on the proposed allocation $s_{\mathcal{G}}$ by a simple change of the timing of the game.

In step 1 of VETO, each participant $g \in G$ is asked to make three sets of choices: (i) a voting decision $v_g \in \{A, B\}$ on which group should choose the peaceful allocation; (ii) a proposal s_g for the allocation in case g's group obtains the majority; and (iii) a choice $z_g\,(1 - s_{\mathcal{G}}) \in \{0, 1\}$ on the preferred allocation mechanism (conflict or voting) for each of the five possible resource shares $1 - s_{\mathcal{G}}$ that could have been assigned to g's group by the winning group $\mathcal{G}$ at the allocation stage. The conflict choice z_g in response to the resource share $s_G = 1 - s_{\mathcal{G}}$ obtained from the other group is, hence, made using a strategy method and reveals the minimum acceptable resource share for the own group.

In step 2, the relevant individual decisions are aggregated to the group level: the members

$g \in G$ must jointly select s_G and z_G from the individual allocation proposals $\{s_g\}_{g \in G}$ and implicit individual conflict choices $\{z_g\}_{g \in G}$, respectively. The stage 1 votes v_g determine the group $\mathcal{G}$ whose preferred allocation $s_{\mathcal{G}}$ is selected; the conflict choice $z_G\,(1 - s_{\mathcal{G}})$ of the group $G \neq \mathcal{G}$ that lost the vote decides whether the chosen allocation is implemented or if the payoff is decided in the conflict subgame.

S1.3 Benchmark predictions

Ethnic hostility Under the majoritarian systems of BASELINE and ALL-INGROUP where the allocation is decided by majority rule, the minority power under the democratic mechanism is minimized in that the majority can appropriate all resources. Hence, following the standard theory with players who maximize monetary payoffs under complete information, group A (with more members) should choose $z_A = 0$ (voting) and group B should choose $z_B = 1$ (conflict) in the conditions BASELINE and ALL-INGROUP.

Prediction 1. With payoff-maximizing players, the treatment variation ALL-INGROUP on the origin of the out-group should not affect the groups' conflict decisions.

Potential deviations. If the players have distributional preferences that exhibit in-group altruism toward members of the same ethnicity, the minority's choice may change, resulting in a treatment effect on the conflict choice. Concretely, what matters are the minority group B's beliefs over the possible allocations chosen by the majority in the voting subgame. If group B believes that a winning group A chooses the low-inequality allocation $s_A = 1 - \frac{(1-\gamma)}{2}$ (or even the equal split) with high likelihood due to, for instance, altruistic preferences, the optimal choice becomes $z_B = 0$ ('peace').[5] The individual beliefs may be correct but may also stem from a projection of own altruism on the other group's preferences in line with a theory of social projection. We provide exploratory analyses testing the plausibility of these causes of behavioral deviations from Prediction 1 in Appendix **??**.

Power sharing via voting institutions The second experimental manipulation is designed such that the theory prediction for payoff-maximizing players fundamentally changes: in the PROP-REP treatment, both groups $G = A, B$ should choose $z_G = 0$, that is, no conflict. Anticipating that each group would claim the entire resources if winning at the voting stage, the expected continuation payoffs in the voting game are $3V/5$ and $2V/5$ for group A and B, respectively; both are higher than the expected conflict payoff of $V/4$. Hence, whereas the standard theory predicts conflict with probability one in BASELINE, it predicts conflict with probability zero in PROP-REP.

Prediction 2. With payoff-maximizing players, neither minority nor majority group members in PROP-REP should opt for conflict.

Potential deviations. In the PROP-REP treatment, conflict may be attractive for a minority group that exhibits strong outgroup spite. This follows from the fact that in the conflict subgame the individual expected payoff of a member of group B is higher than the individual expected payoff of a member of group A, in contrast to the voting subgame where all individuals get the same expected payoff (based on fully selfish allocation choices). Another potential reason for deviations from Prediction 2 are preferences for procedures that are not only fair *ex ante*, like the 'random dictator' mechanism we implement in this condition, but also lead to equitable outcomes *ex post*. Similarly, minority groups may still perceive the voting mechanism as less attractive since their win probability is $2/5$ only whereas it is $1/2$ in the conflict. However, given the limited set of variables

[5] Holding the beliefs constant, altruism on the side of group B would make group B more willing to accept unequal splits and choose the voting subgame where no rents are dissipated. Hence, the beliefs must assign sufficiently high probability–but not necessarily probability one–to shares $s_A \leq 1 - (1 - \gamma)/2$.

we can collect, we are unable to explore further which of these possible explanations, if any, is more plausible in our context.

Maximum minority power via the threat of conflict Adding the possibility of a choice of conflict conditional on the majority's allocation proposal captures another conflict-based mechanism to resolve distributional conflict. Anticipating that the minority would reject all proposals that leave them with a lower payoff than their outside option, i.e., their expected conflict payoff, the majority should claim a share $s_A = 1 - (1 - \gamma)/2$ for themselves.[6] In turn, the minority should accept this proposal so that conflict occurs with probability zero.

Prediction 3. With payoff-maximizing players, the majority group in VETO should propose the allocation that ensures that the minority group has no incentive to trigger conflict.

Intuitively, the threat of conflict in the VETO treatment works as a strong form of veto power of the minority in case of too unequal allocations. However, instead of changing the political institutions and formal checks-and-balances, the predicted prevalence of democratic outcomes relies on the majority's attempt to appease the minority by offering them a sufficiently large share of the resources. Put differently, whereas the PROP-REP treatment can be interpreted as 'inclusive' political institutions which may reduce civil conflict, the 'inclusiveness' of the political institutions arises endogenously in the VETO treatment. The *ex post* conflict option in VETO can also be understood in the spirit of a dynamic game where current appropriation activities of the majority cause political instability in the medium run.

Potential deviations. With spiteful preferences, which could be induced by ethnic tensions, the minority may still be unsatisfied with a proposal that leaves them with their conflict payoff (outside option) only. Reluctance on the side of the majority to accommodate higher demands of the minority may still yield conflict as an outcome, at least with some probability.

S2 Additional analyses and robustness of motivating evidence

This section presents additional statistical analyses of the V-DEM data, detailing the results reported in the main text. A reproducibility package containing the data and code underlying our statistical analyses is available via osf.io/9mhcs/.

We obtained the data on episodes of democratization ('EPLIB') from Wilson et al. (2020). EPLIB covers the time between 1900 and 2018 and 153 countries. In the EPLIB dataset, transitions from low to higher levels of democracy, measured using V-DEM indicators (Coppedge et al., n.d.), are classified into five types of episodes of democratization: 'Censored', 'Failed liberalization', 'Preempted transition', 'Stabilized electoral autocracy', and 'Success'. We excluded censored episodes and then counted the number of episodes classified as 'Success' per country. If that number was larger than 0, we coded 'Democratization' in that country as 'Success' for our analysis and as 'Failure' otherwise. We then merged data on ethnic fractionalization and polarization from Alesina et al. (2003) to the aggregated EPLIB data, leaving us with $N = 147$ countries for which data from both sources was available. Ethnic polarization was computed from the raw data underlying Alesina et al. (2003) using the 'RQ' specification suggested by Montalvo and Reynal-Querol (2005). Combining these two data sources yields the correlational evidence shown in Fig. 1 in the main text.

Tables S1 and S2 present the results of more advanced analyses of these data. Standard errors are clustered at country-level for both analyses. Both analyses include controls for population size, GDP per capita, and terrain ruggedness, following the approach of Montalvo and Reynal-Querol (2005). We use the ruggedness index from Nunn and Puga (2012) instead of the "Mountains" variable in

[6] To deal with the minority's indifference between acceptance and conflict, the theory breaks ties in favor of acceptance in this case, as usual in bargaining games. The corresponding proposal s_A in the experiment was set marginally lower so that acceptance is strictly preferred by the minority.

Montalvo and Reynal-Querol (2005) as it is available for a larger set of countries. Note that due to data limitations for early years we do not control for primary exports; Montalvo & Reynal-Querol can do this, but the estimated coefficient of this variable is statistically insignificant throughout their analyses. Neither do we use their indicator variable for "non-contiguous states" as this would again sharply reduce the number of observations. This variable is time-varying for some countries and not available for early years; adding it does not qualitatively affect our results though.

Table S1: *Democratization (episode success): estimated probability of successful democratization per episode; logistic regressions. Standard errors in parentheses, clustered at the country level. Sample of all episodes of democratization in the period 1900-2018 (uncensored episodes only). The dependent variable is equal to '1' if democratization is successful and '0' if democratization is failed. Main control variables are the number of episodes observed for a given country in the period 1900-2018, log(GDP/capita) and log(population) in the start year of the episode, and a ruggedness index on how jagged or flat a country is (in terms of elevation differences, data from Nunn and Puga, 2012).*

	(1)	(2)	(3)	(4)	(5)	(6)
FRAC	-1.623***	-1.773***	-1.545*			
	(0.483)	(0.521)	(0.638)			
POL				-0.340	-0.102	-0.386
				(0.527)	(0.526)	(0.567)
Num. episodes		-0.516***	-0.431***		-0.506***	-0.420***
		(0.148)	(0.118)		(0.146)	(0.119)
ln(GDP-capita)			0.721**			0.827***
			(0.223)			(0.225)
ln(Population)			0.059			0.065
			(0.112)			(0.116)
Ruggedness Index			-0.155			-0.046
			(0.122)			(0.105)
Decade fixed effects		✓	✓		✓	✓
Constant	0.504	1.217	-5.489*	-0.055	0.820	-6.754**
	(0.279)	(0.697)	(2.545)	(0.314)	(0.740)	(2.498)
Observations	321	321	260	321	321	260

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The analysis in Table S1 uses the individual episodes of democratization as observations and regresses their success (vs. failure) on ethnic fractionalization and ethnic polarization plus controls. Overall, the significantly negative effect of fractionalization on successful democratization is robust to different specifications. The weaker effect in estimation (3) seems to be driven by the reduction of the number of observations when controlling for GDP and population, both being unavailable in early years for a large number of countries. The results are robust, and even become slightly stronger in terms of significance, when replacing the decade fixed effects by period fixed effects based on, e.g., 5-year, 15-year or 20-year intervals.

The analysis in Table S2 leverages a 'country × decade'-panel structure to test for effects of ethnic polarization and fractionalization on onset of successful episodes (vs. 'no onset' or 'onset but failure'). The approach of dividing the sample into fixed time windows follows the approach by Montalvo and Reynal-Querol (2005). The dependent variable takes the following values: '0' if no onset of democratization observed in a given country and decade; '1' if at least one episode of democratization started in a given country and decade but none of these episodes turned out to

Table S2: *Democratization (episode onset): no onset (coded as '0'), unsuccessful onset ('1'), and success ('2'), by decade; multinomial logistic regressions. Standard errors in parentheses, clustered at the country level. Outcome variable by decade, categories "no onset (= no episode)", "onset but failure", "onset and success", base category is "Success". Main control variables are log(GDP/capita) and log(population) at the beginning of the decade and a ruggedness index on how jagged or flat a country is (in terms of elevation differences, data from Nunn and Puga, 2012).*

	(1)		(2)		(3)		(4)	
	No onset	Failure	No onset	Failure	No onset	Failure	No onset	Failure
FRAC	0.491	1.803***	0.591	1.359*				
	(0.287)	(0.470)	(0.333)	(0.556)				
POL					0.049	0.389	0.167	0.279
					(0.332)	(0.511)	(0.331)	(0.521)
ln(GDP-capita)			0.312**	-0.423**			0.259**	-0.547***
			(0.104)	(0.147)			(0.099)	(0.130)
ln(Population)			-0.062	-0.067			-0.066	-0.070
			(0.054)	(0.074)			(0.054)	(0.073)
Ruggedness Index			0.029	0.105			-0.001	0.020
			(0.085)	(0.098)			(0.080)	(0.092)
Decade fixed effects			✓				✓	
Constant	2.438***	-0.667*	0.781	3.659	2.617***	-0.049	1.395	5.091**
	(0.141)	(0.271)	(1.425)	(2.024)	(0.192)	(0.305)	(1.407)	(1.949)
Observations	2292		1298		2292		1298	
	Marginal effects of FRAC				*Marginal effects of POL*			
No onset (0)	-0.056		-0.020		-0.019		0.003	
	(0.031)		(0.050)		(0.035)		(0.047)	
Failure (1)	0.090**		0.073		0.023		0.012	
	(0.027)		(0.044)		(0.030)		(0.042)	
Success (2)	-0.034*		-0.054*		-0.004		-0.014	
	(0.016)		(0.026)		(0.019)		(0.025)	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

be successful; '2' if at least one episode of successful democratization started in a given country and decade. The estimations confirm that a higher level of fractionalization makes the outcome of successful democratization significantly less likely. The results are robust to different time intervals for dividing the sample and determining the outcome variable (e.g., 7-year, 8-year, 15-year or 20-year time windows, adjusting the time fixed effects accordingly).

Discussion. Whereas ethnic fractionalization has a robust, statistically significant effect on the failure of democratization, ethnic polarization and failed democratization are uncorrelated. This finding contrasts with the evidence for conflict incidence, which is typically correlated with polarization but not (or less strongly) with fractionalization (see, for instance, Montalvo and Reynal-Querol (2005) and Esteban et al. (2012) who show that the latter depends on the degree of within-group rivalry of the prize). The difference between conflict incidence and successful democratization is intuitive: conflict intensity is predicted to be highest when there are two groups of equal size (highest polarization), whereas power sharing and the provision of group-specific public goods may be more difficult in highly fractionalized societies.

Supplementary references

Alesina, A., Devleeschauwer, A., Easterly, W., Kurlat, S., & Wacziarg, R. (2003). Fractionalization. *Journal of Economic Growth*, *8*(2), 155–194. https://doi.org/10.1023/A:1024471506938

Coppedge, M., Gerring, J., Knutsen, C. H., Lindberg, S. I., Teorell, J., Altman, D., Bernhard, M., Fish, M. S., Glynn, A., Hicken, A., Lührmann, A., Marquardt, K. L., McMann, K., Paxton, P., Pemstein, D., Seim, B., Sigman, R., Skaaning, S.-E., Staton, J., ... Ziblatt, D. (n.d.). V-dem dataset 2019. https://doi.org/10.23696/vdemcy19

Esteban, J., Mayoral, L., & Ray, D. (2012). Ethnicity and conflict: An empirical study. *American Economic Review*, *102*(4), 1310–1342. https://doi.org/10.1257/aer.102.4.1310

Montalvo, J. G., & Reynal-Querol, M. (2005). Ethnic polarization, potential conflict, and civil wars. *American Economic Review*, *95*(3), 796–816. https://doi.org/10.1257/0002828054201468

Nunn, N., & Puga, D. (2012). Ruggedness: The blessing of bad geography in africa. *Review of Economics and Statistics*, *94*(1), 20–36. https://doi.org/10.1162/REST_a_00161

Wilson, M. C., Morgan, R., Medzihorsky, J., Maxwell, L., Maerz, S. F., Lührmann, A., Lindenfors, P., Edgell, A. B., Boese, V. A., & Lindberg, S. I. (2020). Successful and failed episodes of democratization: Conceptualization, identification, and description. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3536827

University of Innsbruck - Working Papers in Economics and Statistics
Recent Papers can be accessed on the following webpage:

https://www.uibk.ac.at/eeecon/wopec/

2023-18 **Luke Glowacki, Florian Morath and Hannes Rusch:** High minority power facilitates democratization across ethnic fault lines

2023-17 **Felix Holzmeister, Magnus Johannesson, Robert Böhm, Anna Dreber, Jürgen Huber, Michael Kirchler:** Heterogeneity in effect size estimates: Empirical evidence and practical implications

2023-16 **Changxia Ke, Florian Morath, Sophia Seelos:** Do groups fight more? Experimental evidence on conflict initiation

2023-15 **Loukas Balafoutas, Helena Fornwagner, Rudolf Kerschbamer, Matthias Sutter, and Maryna Tverdostup:** Serving consumers in an uncertain world: A credence goods experiment

2023-14 **Loukas Balafoutas, Helena Fornwagner, Rudolf Kerschbamer, Matthias Sutter, and Maryna Tverdostup:** Diagnostic Uncertainty and Insurance Coverage in Credence Goods Markets

2023-13 **Sarah Lynn Flecke, Rene Schwaiger, Jürgen Huber, Michael Kirchler:** Nature Experiences and Pro-Environmental Behavior: Evidence from a Randomized Controlled Trial

2023-12 **Christian König-Kersting and Stefan T. Trautmann:** Grit, Discounting, & Time Inconsistency

2023-11 **Stefano Piasenti, Marica Valente, Roel van Veldhuizen, Gregor Pfeifer:** Does Unfairness Hurt Women? The Effects of Losing Unfair Competitions

2023-10 **Pascal Kieren, Christian König-Kersting, Robert Schmidt, Stefan Trautmann, Franziska Heinicke:** First-Order and Higher-Order Inflation Expectations: Evidence about Households and Firms

2023-09 **Marica Valente, Timm Gries, Lorenzo Trapani:** Informal employment from migration shocks

2023-08 **Natalie Struwe, Esther Blanco, James M. Walker:** No response to changes in marginal incentives in one-shot public good experiments

2023-07 **Sebastian Bachler, Sarah Lynn Flecke, Jürgen Huber, Michael Kirchler, Rene Schwaiger:** Carbon Pricing, Carbon Dividends and Cooperation: Experimental Evidence

2023-06 **Elisabeth Gsottbauer, Michael Kirchler, and Christian König-Kersting:** Climate Crisis Attitudes among Financial Professionals and Climate Experts

2023-05 **Xiaogeng Xu, Satu Metsälampi, Michael Kirchler, Kaisa Kotakorpi, Peter Hans Matthews, Topi Miettinen:** Which income comparisons matter to people, and how? Evidence from a large field experiment

2023-04 **Tanja Hoertnagl, Rudolf Kerschbamer, Regine Oexl, Rudi Stracke, and Uwe Sunde:** Heterogeneity in Rent-Seeking Contests with Multiple Stages: Theory and Experimental Evidence

2023-03 **Melissa Newham, Marica Valente:** The Cost of Influence: How Gifts to Physicians Shape Prescriptions and Drug Costs

2023-02 **Natalie Struwe, Esther Blanco, James M. Walker:** Determinants of Financial Literacy and Behavioral Bias among Adolescents

2023-01 **Marco Aschenwald, Armando Holzknecht, Michael Kirchler, Michael Razen:** Determinants of Financial Literacy and Behavioral Bias among Adolescents

2022-20 **Silvia Angerer, Daniela Glätzle-Rützler, Philipp Lergetporer, and Thomas Rittmannsberger:** Beliefs about social norms and (the polarization of) COVID-19 vaccination readiness

2022-19 **Edward I. Altman, Marco Balzano, Alessandro Giannozzi, Stjepan Srhoj:** Revisiting SME default predictors: The Omega Score

2022-18 **Johannes Diederich, Raphael Epperson, Timo Goeschl:** How to Design the Ask? Funding Units vs. Giving Money

2022-17 **Toman Barsbai, Vojtěch Bartoš, Victoria Licuanan, Andreas Steinmayr, Erwin Tiongson, and Dean Yang:** Picture This: Social Distance and the Mistreatment of Migrant Workers

2022-16 **Andreas Steinmayr, Manuel Rossi:** Vaccine-skeptic physicians and COVID-19 vaccination rates

2022-15 **Stjepan Srhoj, Alex Coad, Janette Walde:** HGX: The Anatomy of High Growth Exporters

2022-14 **Martin Obradovits, Philipp Plaickner** Price-Directed Search, Product Differentiation and Competition

2022-13 **Utz Weitzel, Michael Kirchler** The Banker's Oath And Financial Advice

2022-12 **Julian Granna, Wolfgan Brunauer, Stefan Lang:** Proposing a global model to manage the bias-variance tradeoff in the context of hedonic house price models

2022-11 **Christoph Baumgartner, Stjepan Srhoj and Janette Walde:** Harmonization of product classifications: A consistent time series of economic trade activities

2022-10 **Katharina Momsen, Markus Ohndorf:** Seller Opportunism in Credence Good Markets ? The Role of Market Conditions

2022-09 **Christoph Huber, Michael Kirchler:** Experiments in Finance ? A Survey of Historical Trends

2022-08 **Tri Vi Dang, Xiaoxi Liu, Florian Morath:** Taxation, Information Acquisition, and Trade in Decentralized Markets: Theory and Test

2022-07 **Christoph Huber, Christian König-Kersting:** Experimenting with Financial Professionals

2022-06 **Martin Gächter, Martin Geiger, Elias Hasler:** On the structural determinants of growth-at-risk

2022-05 **Katharina Momsen, Sebastian O. Schneider:** Motivated Reasoning, Information Avoidance, and Default Bias

2022-04 **Silvia Angerer, Daniela Glätzle-Rützler, Philipp Lergetporer, Thomas Rittmannsberger:** How does the vaccine approval procedure affect COVID-19 vaccination intentions?

2022-03 **Robert Böhm, Cornelia Betsch, Yana Litovsky, Philipp Sprengholz, Noel Brewer, Gretchen Chapman, Julie Leask, George Loewenstein, Martha Scherzer, Cass R. Sunstein, Michael Kirchler:** Crowdsourcing interventions to promote uptake of COVID-19 booster vaccines

2022-02 **Matthias Stefan, Martin Holmén, Felix Holzmeister, Michael Kirchler, Erik Wengström:** You can't always get what you want–An experiment on finance professionals' decisions for others

2022-01 **Toman Barsbai, Andreas Steinmayr, Christoph Winter:** Immigrating into a Recession: Evidence from Family Migrants to the U.S.

2021-32 **Fanny Dellinger:** Housing Support Policies and Refugees' Labor Market Integration in Austria

2021-31 **Albert J. Menkveld, Anna Dreber, Felix Holzmeister, Jürgen Huber, Magnus Johannesson, Michael Kirchler, Sebastian Neusüss, Michael Razen, Utz Weitzel and et al:** Non-Standard Errors

2021-30 **Toman Barsbai, Victoria Licuanan, Andreas Steinmayr, Erwin Tiongson, Dean Yang:** Information and Immigrant Settlement

2021-29 **Natalie Struwe, Esther Blanco, James M. Walker:** Competition Among Public Good Providers for Donor Rewards

2021-28 **Stjepan Srhoj, Melko Dragojević:** Public procurement and supplier job creation: Insights from auctions

2021-27 **Rudolf Kerschbamer, Regine Oexl:** The effect of random shocks on reciprocal behavior in dynamic principal-agent settings

2021-26 **Glenn E. Dutcher, Regine Oexl, Dmitry Ryvkin, Tim Salmon:** Competitive versus cooperative incentives in team production with heterogeneous agents

2021-25 **Anita Gantner, Regine Oexl:** Respecting Entitlements in Legislative Bargaining - A Matter of Preference or Necessity?

2021-24 **Silvia Angerer, E. Glenn Dutcher, Daniela Glätzle-Rützler, Philipp Lergetporer, Matthias Sutter:** The formation of risk preferences throughsmall-scale events

2021-23 **Stjepan Srhoj, Dejan Kovač, Jacob N. Shapiro, Randall K. Filer:** The Impact of Delay: Evidence from Formal Out-of-Court Restructuring

2021-22 **Octavio Fernández-Amador, Joseph F. Francois, Doris A. Oberdabernig, Patrick Tomberger:** Energy footprints and the international trade network: A new dataset. Is the European Union doing it better?

2021-21 **Felix Holzmeister, Jürgen Huber, Michael Kirchler, Rene Schwaiger:** Nudging Debtors to Pay Their Debt: Two Randomized Controlled Trials

2021-20 **Daniel Müller, Elisabeth Gsottbauer:** Why Do People Demand Rent Control?

2021-19 **Alexandra Baier, Loukas Balafoutas, Tarek Jaber-Lopez:** Ostracism and Theft in Heterogeneous Groups

2021-18 **Zvonimir Bašić, Parampreet C. Bindra, Daniela Glätzle-Rützler, Angelo Romano, Matthias Sutter, Claudia Zoller:** The roots of cooperation

2021-17 **Silvia Angerer, Jana Bolvashenkova, Daniela Glätzle-Rützler, Philipp Lergetporer, Matthias Sutter:** Children's patience and school-track choices several years later: Linking experimental and field data

2021-16 **Daniel Gründler, Eric Mayer, Johann Scharler:** Monetary Policy Announcements, Information Schocks, and Exchange Rate Dynamics

2021-15 **Sebastian Bachler, Felix Holzmeister, Michael Razen, Matthias Stefan:** The Impact of Presentation Format and Choice Architecture on Portfolio Allocations: Experimental Evidence

2021-14 **Jeppe Christoffersen, Felix Holzmeister, Thomas Plenborg:** What is Risk to Managers?

2021-13 **Silvia Angerer, Daniela Glätzle-Rützler, Christian Waibel:** Trust in health care credence goods: Experimental evidence on framing andsubject pool effects

2021-12 **Rene Schwaiger, Laura Hueber:** Do MTurkers Exhibit Myopic Loss Aversion?

2021-11 **Felix Holzmeister, Christoph Huber, Stefan Palan:** A Critical Perspective on the Conceptualization of Risk in Behavioral and Experimental Finance

2021-10 **Michael Razen, Alexander Kupfer:** Can increased tax transparency curb corporate tax avoidance?

2021-09 **Changxia Ke, Florian Morath, Anthony Newell, Lionel Page:** Too big to prevail: The paradox of power in coalition formation

2021-08 **Marco Haan, Pim Heijnen, Martin Obradovits:** Competition with List Prices

2021-07 **Martin Dufwenberg, Olof Johansson-Stenman, Michael Kirchler, Florian Lindner, Rene Schwaiger:** Mean Markets or Kind Commerce?

2021-06 **Christoph Huber, Jürgen Huber, and Michael Kirchler:** Volatility Shocks and Investment Behavior

2021-05 **Max Breitenlechner, Georgios Georgiadis, Ben Schumann:** What goes around comes around: How large are spillbacks from US monetary policy?

2021-04 **Utz Weitzel, Michael Kirchler:** The Banker's Oath And Financial Advice

2021-03 **Martin Holmen, Felix Holzmeister, Michael Kirchler, Matthias Stefan, Erik Wengström:** Economic Preferences and Personality Traits Among Finance Professionals and the General Population

2021-02 **Christian König-Kersting:** On the Robustness of Social Norm Elicitation

2021-01 **Laura Hueber, Rene Schwaiger:** Debiasing Through Experience Sampling: The Case of Myopic Loss Aversion.

University of Innsbruck

Working Papers in Economics and Statistics

2023-18 (updated version 14.04.2026)

Luke Glowacki, Florian Morath and Hannes Rusch

High minority power facilitates democratization across ethnic fault lines

Abstract
Democratization is vital for peaceful coexistence but often fails, especially where ethnic grievances prevail. Previous research on democratization vis-à-vis ethnic conflict struggled to separate effects of institutional design from those of intergroup animosity. In our lab-in-the-field experiment unequal groups with ongoing ethnic tensions could solve collective allocation problems either democratically or aggressively. As predicted, minorities used inefficient aggression much more often. However, giving minorities high power in the democratic process substantially reduced this problem. Remarkably, removing ethnic animosity changed beliefs but did not reduce aggression. Our results demonstrate that well-designed institutions can achieve efficient, peaceful outcomes even amid intergroup hostility.

ISSN 1993-4378 (Print)
ISSN 1993-6885 (Online)