Formal and Informal Justice in a Fragile State*

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Abstract

This project examines a legal capacity building program in a fragile state. Citizens of the Congolese city of Kananga with local disputes are randomly assigned to receive free arbitration by state lawyers (formal treatment), customary chiefs (informal treatment), or to remain in the status quo (control). We develop a novel measurement strategy to compare the impartiality of formal and informal justice. We then examine how investing in the formal and informal legal sector shapes demand for the formal state, measured by citizens' willingness to pay taxes. Several sub-treatment arms help to shed light on mechanisms.

1 Introduction

In many developing countries, formal and informal legal systems coexist. In contrast, Western societies predominantly rely on formal legal systems. This approach typically reflects a punitive (or retributive) paradigm of justice focusing on identifying offenders and imposing penalties based on an established penal code or body of law. During colonial rule, similar formal justice systems were introduced in most African states, including the Congolese state, and have continued to shape the formal legal apparatus afterward.

Alongside the formal legal system, however, customary chiefs remain stewards of customary law, addressing traditional religious rituals, family matters, and disputes over land and property. This informal justice system is often associated with a paradigm of restorative justice prioritizing compromise, community harmony, and social reconciliation over punishing the offender (Bohannan, 1957; Gluckman, 1972; Kuper, 1965; Schoeman,

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2013). This latter system is often grounded in customs and deep-seated values in African society about the value of community — such as the philosophy of Ubuntu — and it featured prominently in the formulation of South Africa's Truth and Reconciliation Commission (Tutu, 2009) and in postwar reconstruction and reconciliation efforts in Sierra Leone (Casey et al., 2012; Casey, 2018; Cilliers et al., 2016; Graybill, 2017). Importantly, many types of disputes span both formal and informal systems, presenting citizens with a choice about where to seek justice.

Our study compares these two parallel legal systems in the context of a large-scale legal capacity-building campaign in the city of Kananga in the Democratic Republic of the Congo (DRC). This campaign was overseen by the Provincial Ministry of Justice of Kasai Central. It provides subsidized access to arbitration through either formal legal representatives (lawyers) or customary chiefs.[1] The program's goal is to facilitate dispute resolution and improve access to justice across the city.

We develop a measurement strategy to evaluate and compare the competence and impartiality of formal and informal arbitrators. We then study the impacts of these treatments on participants' and neighbors' attitudes and beliefs about justice and the government more generally. In particular, we aim to understand how experiences with formal and informal dispute resolution influence individuals' demand for the state, as measured by their willingness to pay taxes.

2 Background and Setting

This study is conducted in Kananga, a city in the Kasai Central Province of the Democratic Republic of the Congo (DRC). The DRC ranks 122nd out of 125 countries in property rights protections (Property Rights Alliance, 2023). Property disputes are widespread, with 41% of property owners reporting recent conflicts. However, access to the formal justice system is available to only a small fraction of the population due to high costs and perceptions of bias. The legal capacity-building program we study is designed to address these barriers by increasing access to justice in Kananga.

3 Experimental Design

We evaluate the randomized implementation of a large-scale dispute resolution program in the city of Kananga (DRC). This program, overseen by the Provincial Ministry of Justice, aims to enhance the resolution of local disputes over property, debt, and petty theft. The program provides subsidized access to arbitrators in local disputes.[2] The program spans both formal and informal legal sectors given their coexistence in the DRC.

[1] Customary chiefs have a collaborative and complementary relationship with the formal state in the DRC (Henn, 2023).

[2] We use the term "arbitration" because the lawyers and chiefs bring the parties together and guide the discussion between them toward a solution. The process is similar to mediation, but the lawyers and especially the chiefs typically take a stronger hand in shaping/guiding the process than is typically connoted by the term "mediation" in English.

3.1 Experiment 1: Access to Dispute Resolution

Step 1: Dispute Registration. The program begins with a door-to-door dispute registration campaign. MOJ enumerators inform property owners about the government's goal of creating a census of all disputes related to property, debt, and theft in Kananga in an effort to improve the government's dispute resolution policies. Citizens are invited to report ongoing disputes. These enumerators did not mention free arbitration to avoid creating expectations about receiving services which could have influenced reporting rates. Crucially, cases were registered before their assignment to a legal paradigm. This holds constant selection into formal or informal justice, i.e., the "forum shopping" problem that has bedeviled prior work comparing legal dualism. After registration, MOJ enumerators also visit the other party in the dispute to record their perspective. As part of registration, both parties record a brief video explaining their side of the dispute. Enumerators also record similar videos with both parties' neighbors and their local avenue chief, who often play informal mediation roles and are knowledgeable about local disputes.

Step 2: Random Assignment to Formal Mediator, Informal Mediator, or Control. After registration has concluded in a neighborhood, in collaboration with the MOJ, we randomize cases to one of three groups: free arbitration by state-licensed lawyers (Treatment 1), customary chiefs (Treatment 2), or the control group.[3] In the status quo (control group), citizens can pursue resolution through unsubsidized arbitration in the formal or informal sector (or seek intervention from their local avenue chief). Lawyers are randomly assigned to neighborhoods while customary chiefs are assigned to them based on their customary jurisdiction and local recognition. Across treatment arms, arbitrators have two months to resolve all registered conflicts in the neighborhood. They have local offices but can also conduct arbitrations at participants' homes if they choose. Arbitrators receive a monthly salary and a performance bonus if they complete their caseload within two months.

Cross-Randomizations. To help unpack key features of both formal and informal legal systems, we introduced several sub-treatments:

1. *Document*: a share of cases is randomly assigned to receive a formal letter issued by the arbitrator outlining the arbitration details and outcome, signed by all relevant parties. One key difference between the formal and informal legal systems is that lawyers typically issue written documents for court rulings or after arbitrations, while this is much less common among customary chiefs. By cross-randomizing whether these parties are nudged to issue a formal document after the arbitration, we can assess whether this is an important mechanism behind any realized difference between the formal and informal systems.
2. *Escalation to Higher Court*: a share of cases is randomly assigned to receive the option of escalation of the case to a higher court if arbitration fails. In the formal

[3] Technically speaking, we randomize "clusters" of cases rather than cases. The reason is that one property owner can be involved in disputes with different people. To ensure each person only receives a single treatment assignment — and thus to avoid SUTVA violations — we first group cases into clusters and assign them to treatments. We also use a simple re-randomization procedure following (Banerjee et al., 2020) to ensure balance on key covariates.

arm, the higher court is the provincial Public Prosecutor. In the informal arm, it is the customary Royal Court of King Kalamba. One could imagine that formal arbitrations could have greater impacts if citizens view their outcomes as more enforceable by higher courts. We implemented this cross-cutting treatment to test this possibility. After conducting focus groups, we realized that the argument could also be reversed: the customary actors could also be thought by some parties to have greater enforcement capacity, including by supernatural means. We therefore decided to make this escalation intervention symmetric across treatment arms.

3. *Leopard Skin*: in the informal treatment arm, a share of cases is randomly assigned a nudge to use a customary legal technology, the leopard skin, when relevant. Customary chiefs typically mediate severe cases in front of their leopard skin. The leopard skin is thought to have supernatural powers: it compels truth-telling by threatening supernatural sanctions against liars. By nudging customary chiefs to use their leopard skin, we hope to create a first stage in the use of this customary legal practice. We, however, acknowledge that it may be difficult to achieve because the leopard skin is typically reserved for cases of exceptional gravity.

The randomization of cases to treatment is stratified on conflict type, co-ethnicity of the arbitrator and plaintiff (proxied by their territory of origin), the gender of the plaintiff, and the difficulty of the case (proxied by how long the dispute has been unresolved).

The legal campaign spans 419 out of 440 neighborhoods of Kananga. The remaining 21 neighborhoods, randomly selected, serve as a pure control group. To ensure balance, we stratify the selection of these pure control neighborhoods based on past tax compliance and the timing of the legal capacity-building campaign. In these neighborhoods, MOJ enumerators conduct a census of disputes but there are no subsequent interventions. This pure control group allows us to examine the impacts of the program as a whole (subject to statistical power constraints). Additionally, it allows us to investigate potential "disappointment effects" that could influence the estimated treatment effects.[4]

3.2 Experiment 2: Information about the Dispute Resolution Program

The second experiment uses data from the dispute resolution program to provide information to citizens in Kananga, especially those who were not involved in disputes in the first experiment. We examine how credible information about the dispute resolution program shapes average citizens' beliefs about and engagement with the formal and informal sectors.

This experiment will be administered after the conclusion of the arbitration program

[4]Specifically, individuals whose cases are assigned to the control group might be disappointed upon learning that others receive free arbitration. This could negatively affect their perception of the government and their willingness to pay taxes. By comparing case respondents in the pure control group with case respondents in the control group in treated neighborhoods, we can assess the magnitude of these disappointment effects and estimate treatment effects net of any disappointment effects. To study disappointment effects, we can also study changes in attitudes about the government within control case respondents from case registration to endline.

in a neighborhood in two samples. The first sample is the endline survey sample, for whom this information experiment is embedded in the survey. We discuss the details of the endline survey sample, which includes case respondents, below. The second sample is other households in the city who were not sampled for the endline survey.

In the first sample (but not in the second), we collect detailed information about priors and posteriors about the perceived competence and bias of the formal and informal systems. Competence refers here to the ability of the arbitrator to reach the just outcome, while bias refers to their tendency to favor their coethnics.[5] After collecting respondents' priors using incentivized methods, we will provide statistics summarizing the arbitration outcomes to respondents. To help disentangle arbitrators' competence from their bias, the information provided focuses on cases where one party is a coethnic of the arbitrator and the other is not (referred to as "informative matches").

The information experiment includes several treatments, assigned at the individual level. The information is presented on fliers distributed by enumerators, who read and explain the content to respondents.

1. *Competence information*: Respondents receive information about the share of cases where arbitrators ruled correctly and there was no tradeoff between the just outcome and favoring coethnics. In other words, we take the set of cases in which the coethnic of the arbitrator was viewed by an independent panel of judges to be in the right. Incorrect ruling in these "no tradeoff" cases suggests incompetence.
2. *Type information*: Respondents receive information about the share of cases arbitrators correctly resolved when there is a tradeoff between the just outcome and favoring coethnics. Here we take the set of cases in which the coethnic of the arbitrator was viewed by the independent panel of experts as in the wrong. Such cases provide a sharp test of the bias of the arbitrator: Incorrect ruling (favoring coethnics) in these "tradeoff" cases suggests bias.
3. *Capacity and type information*: Respondents receive information about both capacity and bias.
4. *Control*: Respondents are given general information about the dispute resolution campaign withoutdetails about the outcomes from informative matches.

We plan to evaluate two versions of these treatments: (1) using each of the three statistics described above, calculated solely for the formal treatment, and (2) using each of the three statistics computed for both formal and informal treatments. The primary focus of this paper is citizens who receive information about both sectors, corresponding to version (2). Version (1) will be addressed in a companion paper that examines the formal treatment exclusively.[6]

We examine changes in beliefs, by measuring the difference between the endline respondent's prior and posterior beliefs, as well as broader attitudes about the formal and

[5] We discuss how we assess the "just" outcome in Section 4.1.

[6] We intend to pilot these treatments in early 2025. Depending on the findings from the pilot, we may publish an addendum to this pre-analysis plan if piloting reveals that we should also have a version providing the three statistics described above calculated solely for the informal sector, or other changes.

informal systems. We also examine impacts on tax compliance.

4 Data

An independent team of enumerators administers a series of household surveys. First, we conducted a baseline survey with a random sample of approximately 4,100 households to assess perceptions of justice and the informal and formal systems. These households are randomly selected and not limited to those with disputes. Second, we will conduct an endline survey after the conflict resolution program ends. This survey revisits baseline respondents, case participants and their neighbors, as well as a random sample of additional households.

In addition to survey data, we also collect administrative data from both the dispute resolution program and the tax authority. These data include:

1. Characteristics of the arbitrators
2. Intake surveys with arbitrators (when assigning a case)
3. Outtake surveys with arbitrators (after arbitration)
4. Property tax payments

4.1 Comparing the Impartiality of Formal and Informal Justice

To assess the impartiality of the two legal systems, we need a reliable measure of the truly just outcome for each conflict case. We develop a measurement strategy using the videos recorded during case registration as our source of ground truth. Specifically, we convene a panel of nine independent individuals. The panel consists of (1) three formal legal experts (lawyers), (2) three informal legal experts (capitas), and (3) three randomly chosen citizens from another commune of the city (to minimize potential knowledge of the case or ties to one of the parties). This panel watches all five videos recorded during case registration: one from each party involved in the conflict, one from the local avenue chief, and one from one neighbor of each of the two parties involved in the conflict. Following the videos, enumerators survey each of the viewers concerning the case, including which party they believed to be primarily in the right.[7]

To decide what would be the overall "just" outcome, we primarily plan to take the majority opinion among these nine independent judges. We will also examine separately the just outcome according to formal experts, informal experts, and according to citizens (who are similar to a jury in common law systems). We will compare how often the formal and informal arbitrators reach the "just" outcome.

As noted above, when arbitrators diverge from the "just" outcome, we need a strategy to distinguish between incompetence and bias. Again, competence refers to the ability of

[7] In an extension of this project, a random subsample comprising 10% of these cases will then be presented again to a different panel after arbitration has taken place. This time, the judges will be informed of the arbitration outcome before viewing the videos. This process enables us to examine whether independent judges exhibit bias when assessing the judicial proceedings ex post, with prior knowledge of the outcome. This question holds particular relevance as many legal advocacy organizations rely on this ex post evaluation method in their assessment.

the arbitrator to reach the correct outcome, while bias refers to their tendency to favor their coethnics. To differentiate these, we focus on cases in which one party is a coethnic of the arbitrator and the other is not. To measure competence, we look at the share of cases in which an arbitrator reached the "just" outcome when there was no tradeoff between the just outcome and favoring coethnics. In other words, we take the set of cases in which the coethnic of the arbitrator was viewed by an independent panel of legal experts to be in the right. These are "no tradeoff cases." If the arbitrator rules against their coethnic in these cases, it indicates incompetence. By contrast, the share of rulings favoring the coethnic in "tradeoff cases," in which the coethnic of the arbitrator is judged by the independent panel to be in the wrong, offers a measure of bias.

5 Hypotheses

The main outcomes are the quality of justice, citizen perceptions of property rights security and social harmony, and attitudes toward and demand for the formal state, which we proxy by citizens' willingness to pay the property tax.

1. **Quality of justice**. In the context of Experiment 1, we assess the quality of justice in several ways.
   - Competence and bias. We first assess the quality of justice using our measurement of competence and bias noted in the previous section. Sandefur and Siddiqi (2013) argue that the informal justice system in Liberia exhibits bias toward women and minority ethnic groups. Based on our focus group discussions with citizens in Kananga, we have no strong priors about which system will perform better along these dimensions in Congo.
   - Efficiency. Based on our focus group discussions, we expect informal justice to be more efficient, i.e. for arbitrators to reach a solution more rapidly.
   - Cost. We expect informal justice to be lower cost, though this aspect is mostly neutralized because of our design. Still, we will ask participants if they paid any side payments to arbitrators, and we expect the magnitude of such payments to be lower for informal arbitrators.
   - Durability. We expect solutions from formal arbitration to be more durable, measured as the absence of a recurrence of the dispute many months after the program.
2. **Social harmony.** Given the emphasis in informal justice on "mending the community" and "compromise," we expect chiefs to reach compromise outcomes more often, rather than firmly siding with one party or another. After a case has been resolved by an informal arbitrator, we expect this to have a larger effect on local satisfaction and perceived social harmony (relative to formal arbitrators) among the case sample and their neighbors (experiment 1).
3. **Security of property rights**. We expect that both the formal and informal legal capacity arms will increase the perceived security of property rights among the case sample and their neighbors (experiment 1).

4. **Demand for the state: tax compliance**. The impacts of the treatments in experiment 1 on tax collection are more ambiguous because of two countervailing mechanisms. On the one hand, restorative justice has local cultural legitimacy, with chiefs typically more trusted than state authorities. Moreover, restorative justice may yield broader positive externalities by "mending" community relations and thus restoring social capital, whereas punitive justice focuses solely on the aggrieved parties. In a context like the DRC, where customary chiefs have a collaborative and complementary relationship with the state, investing in restorative legal capacity could thus improve citizens' perceptions of the state and their willingness to pay taxes.

   On the other hand, restorative justice inherently minimizes reliance on the state's punitive capabilities, potentially reducing demand for the state. Formal justice systems are built on a body of enforceable laws external to the parties involved and administered by state agents. By contrast, restorative approaches prioritize finding context-specific resolution that constitute a common ground between the aggrieved parties, mand do not require an external enforcer in the same way. They may thus suppress demand for the state. The widespread use of restorative legal paradigms in sub-Saharan Africa might partially explain the relatively limited development of state institutions at the start of the colonial period.

   Which of these channels dominates is an empirical question with significant policy implications for fragile state settings. Ultimately, we suspect the latter force may dominate and that, compared to formal legal capacity building, the informal arm will result in lower property tax compliance.

   Our predictions for Experiment 2 align with those for Experiment 1. That is, we anticipate that, on average, the information about the dispute resolution campaign will increase demand for the state. However, we expect heterogeneity in the responses, driven by two main factors:

   First, we hypothesize that information about the legal capacity-building program will lead to heterogeneous updating based on participants' priors. That is, for citizens who initially believed the legal system in question (formal or informal) was incompetent but learned that it demonstrated a higher degree of competence than expected in this campaign, we hypothesize that such citizens will update their beliefs upward. Conversely, citizens who thought the system in question was highly competent but learned during the campaign that it was less competent than expected, will update their beliefs downward. We expect similar heterogeneous belief updating concerning the information about bias. We also expect broader perceptions of the formal and informal system and willingness to pay taxes to co-move with these beliefs.

   Second, we expect heterogeneous effects based on the relative observed competence and bias of the two systems. We of course cannot know in advance what the statistics will be on the informational fliers because this depends on the outcomes of the dispute resolution campaign. But if for instance the formal system is found to

be more competent than the informal system, then we expect people to respond differentially according to this information. In fact, we expect citizens to respond more strongly when they receive a signal about a gap between the formal and informal sectors than when they learn about the formal sector alone. The logic is that the comparison of the two systems provides an anchor and thus a way to better make sense of the information (above and beyond their prior) — such that the relative performance on these two dimensions of the two systems ends up mattering.

6 Mechanisms

- **Punitive and restorative approaches:** The first key potential mechanism that differentiates informal justice is that it hews more closely to a restorative paradigm, which contrasts with the punitive paradigm of the formal justice system. Although arbitration is to some degree a non-punitive process, seeking to find a solution that both sides can agree on in the short term, we still aim to characterize the extent to which the systems of justice vary along this dimension. For instance, if chiefs opt more often for compromise than lawyers, this would confirm the intuition. We have a range of survey questions we hope to use to characterize the underlying paradigm of justice that seems to animate each treatment arm.
- **Codifiability:** We use the document treatment to examine the role of codifiability: the fact that formal law often draws upon a written corpus of law, while informal law typically does not. There are customary traditions and adages certainly. But in a more restorative paradigm, the solution is often more context-dependent — what seems to heal the social wound of this particular collection of aggrieved individuals. The issuance of a formal document speaks to codifiability to the extent that it captures the written record of an arbitration and thus harkens to specific legal principles and creates a paper trail. We expect treatment effects to be more pronounced in the documents sub-treatment. We also expect this additional effect to be larger in the formal arm relative to the informal arm because codifiability is more typically associated with the formal justice system. We also analyze if arbitrators invoked specific legal doctrines (formal or informal) in their judgement.
- **Enforcement:** A final mechanism of interest is the variation in enforcement threat across treatment arms. As noted above, the formal treatment could be seen to have greater enforcement threat, given that a decision by lawyers could be viewed as valid legal process in a higher court. However, equally the informal treatment could be seen to have greater enforcement threat because of the chief's supernatural enforcement powers. We exploit the escalation treatments to examine if the aforementioned effects are more pronounced among cases assigned to these sub-treatments.
- **Impartiality and competence**: Although outcomes in their own right, the perceived impartiality of the legal proceedings are also likely important channels for citizens to update positively about the state and be more willing to fund it through taxes. If formal arbitrators prove more impartial than customary chiefs (or vice

versa), we would expect a correspondingly larger effect on tax compliance. If formal arbitrators prove more competent, we would similarly expect a correspondingly larger effect on tax compliance. However, such an analysis would involve conditioning on outcomes. We will deal with this problem with a leave-one-out JIVE approach, instrumenting the outcome from a given arbitrator (randomly assigned) using their observed outcomes in other cases. The logic is that a case that happens to be assigned to an arbitrator who is rarely biased is likely to be handled in a procedurally fair manner, independent of the specific case characteristics. Furthermore, Experiment 2 will help disentangle the importance of unbiased judgments in shaping the pattern of belief updating observed after the program.

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