

These Are My People: Ethnic and Class-based Discrimination in Lagos

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Abstract

There has been little empirical study of how ethnicity and class interact in shaping economic outcomes. We conduct an audit experiment in Lagos – one of the first audit experiments in Africa – seeking to address this gap. We find no evidence that, all else equal, sharing an ethnicity on its own shapes treatment. However, sharing an ethnicity does benefit higher-class coethnics, giving them immunity from penalties that otherwise apply to higher-class buyers. The pattern of discrimination is tentatively suggestive of taste-based motivations.

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1 Introduction

There is substantial evidence that discrimination is a central driver of economic disparities, particularly as regards race (Darity and Mason, 1998; Moss and Tilly, 2001; Pager and Quillian, 2005; Wilson, 1996; etc.). We know surprisingly little, however, about the extent to which discrimination occurs based solely on characteristics of one individual or rather based on the intersection of two individuals' characteristics, for example the shared identity (or lack thereof) between buyers and sellers. We also know little about how potential bases for discriminatory treatment (race, religion, ethnicity, gender, etc.) interact.

One emerging method of studying the dynamics of discrimination is with field experiments, specifically in-person audits (e.g. Pager, Western and Bonikowski, 2009). There are a number of advantages to these sorts of audits, not least of which is the generation of causally identified findings which can complement qualitative work and provide context for the generation of new theory (Pager, 2007).

Existing in-person audits have been concentrated in the US, particularly in the housing (1977 Housing Market Practices Survey; 2000 Housing Discrimination Study) and employment (Lahey, 2005; Pager, Western and Bonikowski, 2009) markets, though audits have been used more widely to study markets such as that for car repair (Gneezy, List and Price, 2012).

A limitation of in-person audits is that the salient features in these audits – most commonly race – cannot be manipulated experimentally. This opens work up to Heckman's (1998) and other's (Guryan and Charles, 2013) critique, namely that there are characteristics of confederates unobserved by researchers that thus cannot be matched on, and that these unobserved characteristics could be driving the observed effect. This has led many social scientists to conduct correspondence audits, where inquiries are made by (for example) email, where identity can be manipulated experimentally. These audits are vulnerable to another set of criticisms regarding the relevance of

these contexts, given that, for example, few job seekers find employment in this manner (relying instead on personal contact and connections), and there are few domains outside of employment where consequential discrimination might occur without face to face interactions. Our audit study is designed to address the criticism of unobserved confederate characteristics without sacrificing the critical in-person component.

In Nigeria, as in several other African countries, ethnicity is the most salient identity for a large plurality of citizens.¹ The literature on the consequences of ethnic salience focuses on relatively infrequent political outcomes such as cooperation and vote choice (e.g. Alesina, Baqir and Easterly, 1999; Bratton, Bhavnani and Chen, 2012; Habyarimana et al., 2009; Miguel and Gugerty, 2005). We know little about differential treatment and identity salience in *casual* interactions in the informal sector, such as a passenger boarding a minibus and discussing the cost to be dropped off between two stops or a taxi driver asking a man selling phone credit for change. There are conceptual reasons to think that differential treatment might look different and be driven by different factors in these interactions compared to political interactions. Outcomes in these informal economy interactions are not binary. Individuals need not make a decision about whether ethnicity or class or religion matters more. None, some, or all can matter. These interactions might reveal more about overlapping identities and the discriminatory incidence that results than do, for example, studies of voting motivations.

Though these casual interactions are sometimes called “superficial” (Amir, 1969; Sigelman et al., 1996), they matter for many reasons. Depending on context, casual interactions can remove or exacerbate stereotypes (Allport, 1954; Bobo, 1999; Putnam, 2007; Stolle, Soroka and Johnston, 2008). Casual interactions can impede or facilitate more intimate forms of cross-group engagement, such

¹When asked to choose which of their many identities they feel closest to, 48% of Nigerians picked their ethnic identity (Afrobarometer 2003). This question was dropped from future Afrobarometer rounds. In Botswana, Ghana, and Namibia more respondents report feeling closer to their ethnic identity than any other identity (Eifert, Miguel and Posner, 2010).

as friendship (Mann, 1959; Williams, Dean and Suchman, 1964). They can be necessary for cross-group associational forms of engagement (Varshney, 2001) which can prevent violent conflict, yet they might also *exacerbate* inter-group tensions as individual casual interactions might incentivize a group to work harder to maintain group boundaries (Forbes, 2004). Though there is debate about causal mechanisms, a vast inter-disciplinary literature argues that social trust promotes economic development (Dearmon and Grier, 2009; Fukuyama, 2001; Woolcock and Narayan, 2000). As such, the nature of the frequent casual interactions that take place in the informal economy should not be ignored.

Perhaps most importantly, casual interactions speak to identity mobilization. In everyday life, are ethnic and/or class identity salient? Do market sellers and housing agents – two groups which interact with a large number of people and thus potentially play a substantial role in identity activation – find salient the class, ethnicity, and/or religion of those who buy from them, a necessary pre-condition to engaging in differential treatment?

The nature of identity and political mobilization has long been a topic of political science theorizing. From Varshney's (2001) associational engagement to Putnam's (2002) bridging social capital, the notion that inter-group contact has positive political spillovers has become an under-explored premise of both political science theorizing and external international development interventions, which often focus on fostering cross-group engagement. It is not clear this always need be the case; being treated less well by individuals unlike you may strengthen in-group identification and exacerbate out-group antipathies. Political appeals to class and ethnicity (for example) are often at cross-purposes, and which will be more successful depends on identity salience; this has substantial implications for the de facto redistributive effects of democracy (2013). These mobilizations may in turn have path-dependent consequences for identity salience (Eifert, Miguel and Posner, 2010), driving a cycle wherein identities and political mobilizations become increasingly path-dependent.

We seek to return, in some ways, to the 'coal face' of inter-communal interactions: informal economy interactions between members of different groups, where which are the relevant 'groups' remains an open question. Prior studies about the consequences of casual interactions ignore the critical prior question: what actually happens in these interactions, and why? Our study asks: On what dimensions does differential treatment occur in casual interactions and what motivates it? When and where are certain identities salient, and are these underpinned by taste-based or rational economic calculations? We further analyze how the nature of differential treatment in casual interactions compares to differential treatment in more political interactions, such as cooperation in collective action problems and vote choice.

We conducted audit experiments, a method increasingly in use in political science (Adida, Laitin and Valfort, 2010; McClendon, 2014; Michelitch, 2013), in a densely populated neighborhood in Lagos, Nigeria in the retail rice and housing rental markets to test hypotheses about differential treatment in casual interactions. Confederates visit rice sellers and housing agents, dressed to look like they come from a medium/high socioeconomic (SES) group or low socioeconomic group, greeting the seller and agent in the language of one of the three main ethnic groups in Nigeria, and wearing a large cross necklace or providing an additional Islamic greeting to indicate religious identity. Confederates inquire into the price of rice, and purchase a pre-determined quantity. We record both the quoted price and weight of rice received. Confederates also inquire into the availability and cost of a specific type of apartment, and we record (among other things) the price quoted for apartment rental. We conducted a pilot audit in both markets with 173 interactions, and a full audit designed to carefully test patterns observed in the pilot with 464 interactions, a sample size that far exceeds similar city-level housing audits conducted in America (e.g. Turner et al., 2002).

Our central findings are that buyer socioeconomic status rather than ethnic or religious match

drives discrimination. However, non-coethnics who appear lower class are treated roughly the same as lower class coethnics. In short, buyers who appear of lower socioeconomic status are treated better than those who appear of higher socioeconomic status, but shared ethnicity makes one immune from a penalty that otherwise applies to higher class buyers.

Several research areas could benefit from understanding the nature of discrimination in casual interactions and questioning the assumption that differential treatment looks the same in casual interactions as it does in political interactions. Most simply, as Forbes (2004) has suggested, it seems implausible that meaningful cross-group associational interactions could occur in the absence of casual cross-group interactions. Claims about the causal relationship between associational forms of engagement and peace are likely to be proximate explanations, as Varshney himself acknowledges (2001) without considering the determinants of cross-group associational forms of engagement.

We begin this paper by discussing existing theory on how and why ethnic, religious, and class identity are expected to affect interactions in casual and political interactions. We develop hypotheses from a careful consideration of the mechanisms that could plausibly be operative in casual interactions. Next we discuss the experiment design. We proceed to present our pilot and full audit results on discrimination, and then attempt to disentangle potential mechanisms driving the results. Finally we present some robustness checks, consider alternative explanations, and conclude.

2 Theory

What is the scope of discrimination in everyday forms of engagement, on what bases does it occur, and what motivates discriminatory treatment? A large literature has provided evidence that in political interactions coethnics are more willing to cooperate and contribute to public goods (e.g. Alesina and Glaeser, 2006; Habyarimana et al., 2009; Miguel and Gugerty, 2005). Yet the mechanism that these studies identify relies on the assumption of repeat interaction, which we

design our experiment explicitly to avoid so as to mirror the many one-off casual interactions in the informal sector that occur in daily life. There is a large literature on discrimination in Western labor markets (for a review of these studies see Altonji and Blank, 1999), but also on discrimination in everyday interactions in America, using the audit method, just as we do in this paper (e.g. Fong and Luttmer, 2009; Gneezy, List and Price, 2012). This literature finds overwhelming evidence of racial bias: blacks and Hispanics are uniformly treated worse than non-Hispanic whites, and the degree of discrimination in these audits is staggering. Yet it is unclear what lessons this has for us, as racial groups are roughly ranked in America; blacks and Hispanics, on average, tend to be less wealthy than non-Hispanic whites. Statistical discrimination could be motivating differential treatment, where minorities are treated worse because their socioeconomic status is approximated based on the mean SES of their group. This motivation seems implausible in unranked contexts like Lagos. Moreover, most American audits do not consider ‘seller’ identity, so it is difficult to know whether shared identity is motivating treatment.

However there is some evidence from unranked contexts that casual inter-group contact worsens inter-group trust (Forbes, 2004). This is suggestive of some type of negative bias toward non-coethnics in these interactions.

Hypothesis 1: All else equal, sellers will give lower price quotes to buyers who share either an ethnic or religious identity.

In recent years the importance of class in political interactions has been mostly dismissed; ethnic identity offers more explanatory power in some cases (e.g. Eifert, Miguel and Posner, 2010). However, this does not mean class identities are not activated under some circumstances, including as regards political mobilization. Evidence of intra-ethnic group class conflict in Lagos abounds. For example, recently Yoruba *indigenes*, those who can trace their ancestry back a few generations to Lagos state and are on average much poorer than non-*indigene* Yoruba, have been protesting that

the state government (which is run almost exclusively by Yoruba people) has been denying them preferential treatment.² We expect that class will also be salient in casual interactions, suggesting that class may also be a viable basis for identity mobilization.

We are aware of two papers that have looked at the effect of status in casual interactions (Ball et al., 2001; Bulte et al., 2012). These studies, however, come to contradictory findings. Based on anecdotal evidence from wealthy Nigerians who say they ‘dress down’ when shopping at a market to appear of lower SES, or send house staff to buy things for them so that they will not get charged very high prices, we expect that class identity will result in differential treatment as well.

Hypothesis 2: All else equal, sellers will give higher prices to those who look to be of higher socioeconomic status.

How might shared ethnic, religious, and class identity interact? For many political outcomes, such as vote choice, this question has not been of interest. What matters is which single identity an individual identifies with ‘first and foremost’ (Eifert, Miguel and Posner, 2010; 500) or whether a citizen supports an ethnic *or* labor party (Melson, 1971) or which *single* identity forms the basis of an alliance for elections (Posner, 2005) or conflict (Esteban and Ray, 2008). In these contexts individuals must choose one identity over the other, but in much more frequent everyday forms of engagement individuals operate on all axes of their identities. In the business transactions under study here, outcomes are continuous, and individuals need not make a decision about whether ethnicity or class or religion matters more. We expected to see a simple additive relationship between shared identities; the more identities buyer and seller shared, the lower the price quote.

Hypothesis 3: There will be an additive relationship between the number of identities shared and the price quote offered.

²“Lagos indigenes protest exclusion from Yoruba confab,” *Daily Independent*, 14 February 2014, <http://dailyindependentnig.com/2014/02/lagos-indigenes-protest-exclusion-from-yoruba-confab/> (accessed June 2, 2015).

3 Experimental Design

We conducted a small pilot audit to identify suggestive patterns in the data, and then a larger audit with fewer ‘treatment’ arms to carefully assess the validity of patterns identified in the pilot. We recruited male University of Lagos students (11 for the pilot, 22 for the full audit) between the ages of 20 and 27 to act as confederates and engage in housing and rice transactions. Among the confederates in the pilot, 6 were Yoruba (5 Christian, 1 Muslim), 2 Hausa (1 Christian, 1 Muslim), and 3 Igbo (all Christian, as Igbo Muslims are uncommon in Lagos). For the full audit, where we did not consider religion, 10 were Yoruba and 10 were Igbo. Critical for the purposes of this experiment, while there are stereotypes about how individuals of certain ethnic groups look, many (perhaps an overwhelming majority of) Nigerians do not fit neatly into these stereotypes. A Yoruba Nigerian can pretend to be Igbo. A Hausa Nigerian can pretend to be Yoruba. Additionally, there are of course no physical characteristics associated with a particular religion.

Before the start of both experiments, the research assistant and authors identified 10 agent offices and 11 rice sellers for the pilot, and 32 rice sellers for the full audit, in an ethnically heterogeneous neighborhood called Bariga, 7 miles north of Lagos Island. We selected the Bariga neighborhood because of its proximity to University of Lagos, which made it ordinary that students were looking for housing and rice in the area. Further alleviating suspicion for the pilot was the fact that a new semester was starting just two weeks after the pilot, making it even less likely to raise eyebrows that several students over the course of a week were looking for housing.

In Lagos State, Nigerians who wish to rent housing approach agents in the neighborhoods where they wish to reside. Landlords who have available housing will give the key to the housing to a single agent, who then searches for renters. Once an agent finds a renter, the agent manages the entire transaction, negotiating the rent and all fees, and pocketing whatever is earned above what the landlord had asked for in rent. Across Nigeria, the norm is for agents to demand *two year’s*

rent paid up front, and one year’s rent in advance for each subsequent year.³

Treatment

Confederates were alternately assigned to dress in a higher class way (what our confederates called ‘radiant’) or a lower class way (‘unkempt’). On days when confederates were radiant, they would wear a button-down shirt, pants, dress shoes, and often a watch. On unkempt days they would wear a t-shirt, shorts, and sandals.

This was the extent of the SES treatment for the rice audits. For the agent audit, in addition to a higher class of appearance when a confederate was radiant, he would tell the agent he was looking to rent a room for him and his girlfriend. In Nigeria, where men are typically expected to buy their girlfriends gifts such as phone credit and clothes, this further signaled that the confederate was wealthy enough to have a girlfriend. When confederates were unkempt, they told the agent they were looking to rent a room that would be split with their friend. This signaled that they could not afford even a tiny room on their own. By having both high and low SES confederates ask for a room that would be split between two people, we ensured that quote differences were not attributable to the number of tenants the agent believed would be resident.

University of Lagos students were well-suited for this treatment, as this university is a federal school that permits students to work while enrolled, allowing for students from a variety of backgrounds to attend. It was thus natural for agents and rice sellers to interact with low and high SES students.

To keep the identity treatment as natural as possible, assigned ethnic and religious identity were conveyed slightly differently in the agent and rice stages of the experiment as well. When visiting agents, confederates were assigned names clearly associated with an ethnicity and religion.

³In 2011 Lagos State passed a new tenancy law that includes a provision prohibiting landlords from requesting or accepting more than one year’s rent in advance. This provision has not been enforced.

For example, one assigned name was Emmanuel Abubakar, a name most Nigerians would know conveyed Christianity (Emmanuel) and Hausa identity (Abubakar). We conducted a small post-audit survey where we asked Nigerians to tell us which ethnicity and religion were most commonly associated with the 49 names used in the housing audit. There was an 85% accuracy rate, which was high enough to convince us that the treatment had been understood as intended.⁴ When visiting rice sellers, confederates would wear a flashy cross necklace if they were going as a Christian and would use the traditional Islamic greeting ‘As-salamu alaykum’ (peace be upon you) if going as a Muslim. Confederates conveyed their ethnicity by greeting the rice seller (after the Islamic greeting, if going as a Muslim) in Hausa, Igbo, or Yoruba. If the seller did not respond in the same language, confederates reverted immediately to Pidgin English. For the agent stage, confederates would sometimes represent an ethnicity or religion different than their own. For the rice stage, confederates would sometimes be a religion different than their own, but always represented their true ethnicity, as we did not want confederates speaking in a language they did not know.

To identify the ethnic and religious identity of the agents and rice sellers, during debriefs the authors asked confederates about any clues they had picked up in this regard. Sometimes there were agent/seller-initiated explicit conversations about ethnicity or religion. In one case a confederate heard a neighbor refer to a rice seller as an *alhaji*, or one who has made the Islamic pilgrimage to Mecca. In cases where there was any uncertainty we had the last confederate to visit an agent or seller casually raise the question explicitly after the interaction’s completion. Ethnicity and religion are discussed frequently in Nigeria, and these are not particularly sensitive or unusual questions.

The interaction

Confederates received approximately four hours of training on the audit scripts. There were role

⁴We are aware of one audit, a correspondence apartment rental audit, that conducted a similar test (?). Their accuracy rate was 87%.

plays and quizzes until the authors were confident each confederate had mastered the scripts. Confederates were trained to approach agents and introduce themselves by their full assigned name. Agents and confederates interacted in whatever language they wished, which was in every case Yoruba (spoken by many Lagosians, irrespective of their ethnic background), Pidgin English, or a combination of the two. They were to say they were a student seeking to rent a Face-Me-I-Face-You. Face-My-I-Face-You, the most common type of low-income housing in Lagos, are single rooms where a tenant shares a bathroom and kitchen with others living in the building. Following their assigned SES, they inquired about a room for themselves and their girlfriend or friend. If pressed for how large a room, they described themselves as desiring a normal (standard, regular) student-sized room. Confederates were trained to gather information about the cost of rent, all fees, and any deposit, along with subjective information about the nature of the interaction, including the degree to which they felt encouraged to return. While confederates were instructed that they were welcome to bargain if that felt natural (as it was important that agents believed these were genuine transactions, particularly given that other confederates would later visit the same agents), the object of inquiry here (as in the rice stage) was the initial price/fees quotation.⁵ These interactions typically lasted 10 minutes. Confederates would then meet with one of the authors to be debriefed.⁶

For the rice audit – both in the pilot and full audit – after the greetings, confederates were trained to ask: “How much for rice?” to signal naiveté and provide the opportunity for seller

⁵This, of course, means that the quotes received might be different than what sellers actually expected buyers to pay, or what they would pay in a non-experimental environment. We believe that this effect, if any, is small—it would be unusual for anyone (especially a man, especially a university student) to bargain over a few Naira for a single cup of rice. In the housing market, bargaining would certainly be expected. However, very few of those confederates who did choose to engage in bargaining received a significant discount on the total price—indeed, the majority received no reduction in price at all. Finally, even were one to believe sellers did not expect buyers to pay something quite close to the initial prices offered—despite, we believe, compelling reasons to the contrary—this only would affect the findings were one to believe that for certain types (coethnics/noncoethnics, higher SES/lower SES) of people sellers expected that despite initially quoting higher (lower) prices these individuals would ultimately pay lower (higher) prices than were they of a different type. If this is not the case, one would expect initial quotes to be a monotonic transformation of expected final prices, and as such would not affect the overall story of this work.

⁶Given the norm of paying two years’ advance rent, renting an apartment in Nigeria is a huge financial undertaking. By calling this interaction casual, we mean that the interaction between the agent and confederate is casual. We do not mean to imply that renting the apartment itself is a casual activity.

discretion. They then requested one cup (for the pilot) or one dereka (for the full audit – a dereka is a unit equivalent to a 15 ounce can) of rice, paid, and brought the rice back to one of the authors, who would debrief the confederate about the interaction.

	Pilot Audit	Full Audit
Identities Considered	Ethnicity	Ethnicity
	Class	Class
	Religion	
Markets	Rice	Rice
	Housing	

Table 1: Categories considered for pilot and full audit. While the pilot audit considered three ethnicities (Hausa, Igbo, and Yoruba), to increase statistical power the full audit included only interactions with Igbo and Yoruba individuals.

This paper improves on the standard in-person audit designs in two important ways: 1) we manipulate salient characteristics under study to overcome the challenge of matching on unobserved confederate characteristics, addressing a critique made by Heckman (1986),⁷ and 2) we increase the number of interactions that occur with each individual seller/agent whose behavior is the subject of study, allowing for the use of both confederate fixed effects and an agent/seller-specific outcome.⁸

4 Results

4.1 Pilot

In this section we present results from the pilot audit, looking at 86 housing agent audits and 87 rice seller audits. Rice transactions (for the pilot only) are for one cup of rice, the smallest ‘standard’ measure among Lagos rice sellers; however, as the data shows, a cup seems not to be so standard after all, with the smallest quantity obtained almost half that of the biggest quantity obtained.

⁷Identities were only manipulated in the pilot where we considered religion, which was easy to manipulate, and where the housing interactions provided an easy opportunity to signal ethnicity without speaking in the language associated with the ethnic group. Because the full audit looked only at rice transactions, where the ethnicity treatment was administered through the confederate’s greeting, we did not want auditors pretending to speak a language they did not.

⁸In a survey we conducted of 15 published in-person and correspondence audits across disciplines over the past decade, we found that only three involved more than three audits per ‘seller.’

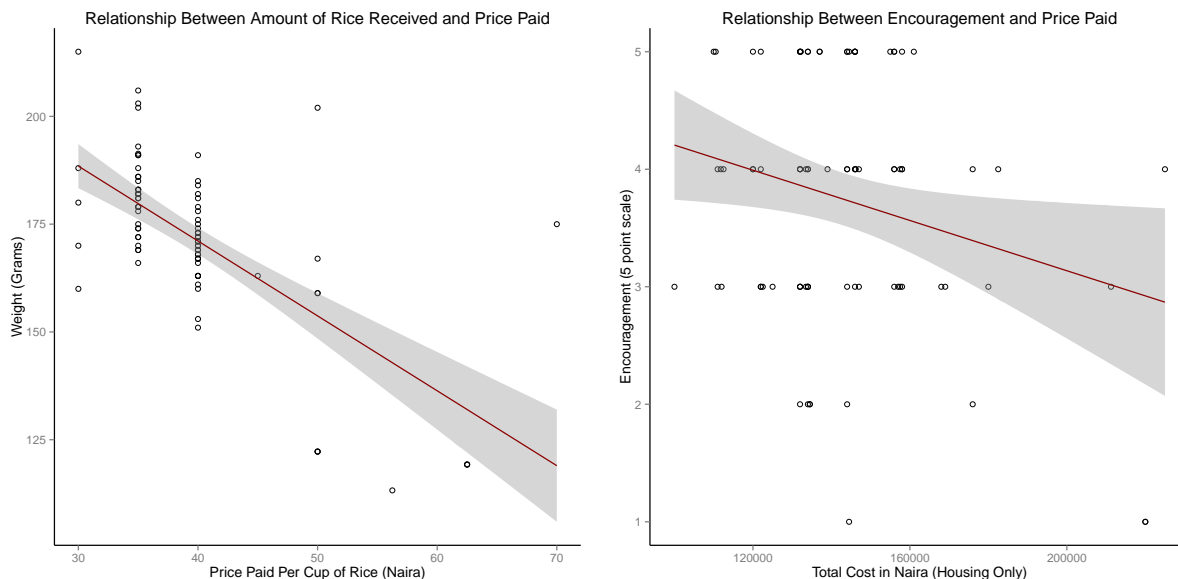


Figure 1: These figures show the relationship between discrimination measures in the rice and housing data from the pilot audit. Receiving less rice is associated with paying a higher price, and agent encouragement is negatively correlated with the price quoted for housing.

Housing transactions include two years of monthly rent, as is standard. In addition, there are a variety of fees that the housing agent may or may not apply, including a ‘form fee’ (essentially a fee for beginning the process, paid upon completing a registration form), a commission fee (to the agent), an agreement fee (to the landlord), and damages (a deposit).⁹ Agents discuss these items as separate fees; we simply take the sum of fees and rent as the total cost in the housing market.

Following every housing interaction one of the authors interviewed the confederate, asking them a number of questions about the transaction including how encouraged they felt they were to return on a 5-point scale, a measure standard in the housing audit literature (see for example Turner et al. (2002)). We also capture two measures of discrimination in the rice market: price paid and quantity received. In both cases, as shown in figure 1 higher prices are negatively associated with the other discrimination measure (weight, encouragement); it is not the case that housing agents more strongly encourage buyers to whom they have quoted a higher price to return (to reap higher

⁹One could argue this is not a fee as it will be returned upon completion of the rental agreement; anecdotally, however, very few damage fees are ever returned, and as such we consider damages part of overall fees.

profits), nor is it the case that rice sellers reward those paying higher prices with additional rice. While we do not put too much weight into these encouragement scores as they are fairly subjective, we present this plot simply to show that it is *not* the case that auditors who were quoted higher prices felt very encouraged to return.

The dependent variable we present for both the pilot and full audit is a discrimination index. This index involves comparing the price paid for rice/price quoted for housing in Naira or quantity of rice received in grams to the best treatment received by any buyer from a given seller. If, for example, one buyer received 165 grams of rice and another buyer bought rice from the same seller and received 150 grams, that would result in an index value of .1, reflecting the 10% penalty for the unit of rice from the latter buyer. A similar calculation is done for price relative to the *minimum* price paid; *in both cases the scale is constructed so that higher numbers indicate that less favorable treatment (higher price/lower weight) was received*. We use this index because not all variation is discrimination; variation could instead reflect variation in the quality and real-world availability of housing and some rice sellers buy in greater bulk than others, and are able to sell at slightly lower prices.

As shown in Table 2, and also Online Appendix Table 1 and 2, the pilot data is inconsistent with the first hypothesis: there is little indication that coethnics receive preferential treatment. Looking at price and weight discrimination indices across the two markets, the sign of the coefficient varies and is never significant. There is also no evidence that sellers treat buyers who share their religion any better than those who do not. Though never significant, we see some evidence in Online Appendix Tables 1 and 2 that confederates who appear higher class are quoted higher prices and receive less rice.

However, a pattern emerges from this data. Contrary to our hypothesis about an additive relationship between sharing identities, as shown in Table 2 there are suggestive signs of an interaction

effect, where while sharing an ethnicity does not seem to matter on its own, sharing an ethnicity and class interact; high class coethnics are immune from the penalty that applies to high class non-coethnics.

	(1)	(2)	(3)	(4)
	DI (Price)	DI (Price)	DI (Price)	DI (Price)
Ethnic Match	-0.0353 (0.0542)	0.121 (0.0857)		
High SES	-0.0113 (0.0631)	0.0836 (0.0738)	-0.00955 (0.0627)	-0.0523 (0.0900)
HighSES*Ethnic Match		-0.246* (0.106)		
Religion Match			0.0397 (0.0528)	0.00108 (0.0786)
HighSES*Religion Match				0.0700 (0.105)
Constant	0.146 (0.0905)	0.0776 (0.0927)	0.100 (0.0983)	0.128 (0.107)
Buyer Fixed Effects	Y	Y	Y	Y
R^2	0.047	0.111	0.049	0.054
Observations	87	87	87	87

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2: This table presents results from the pilot rice audit, where the outcome is a seller-specific discrimination index based on the price the auditor paid for the rice. Because the outcome is a discrimination index, a positive sign on the coefficient is interpreted as more discrimination, meaning paying more for rice.

4.2 Full audit

The lack of statistical significance in much of the pilot analysis is perhaps unsurprising given the sample size and number of variables. As such, we designed a larger audit to focus only on the variables that seemed to potentially matter: ethnicity and class. While the interaction pattern was stronger in the housing market, we chose to conduct the larger audit in the rice market, a harder test, in a sense. We do this for several reasons. First, the rice audits take substantially less time than the housing audits, making it easier to conduct more audits within a given period of time.

But this practical justification offers theoretical advantages as well. The longer confederate-housing agent interactions provided many cases where confederates had to go off script, confounding goals of keeping interactions as similar as possible. The rice interactions were more straightforward.

Attributes of the rice transactions also provide the opportunity to disentangle mechanisms that might be driving discrimination, discussed further in section 5. With the rice market we can capture differential treatment that is easier to observe by buyers (price) and harder to observe (weight). While both measures exist in the housing market – price and ‘encouragement’ – measuring encouragement is more vulnerable to subjective interpretations, whereas weight is easy to measure objectively across auditors.

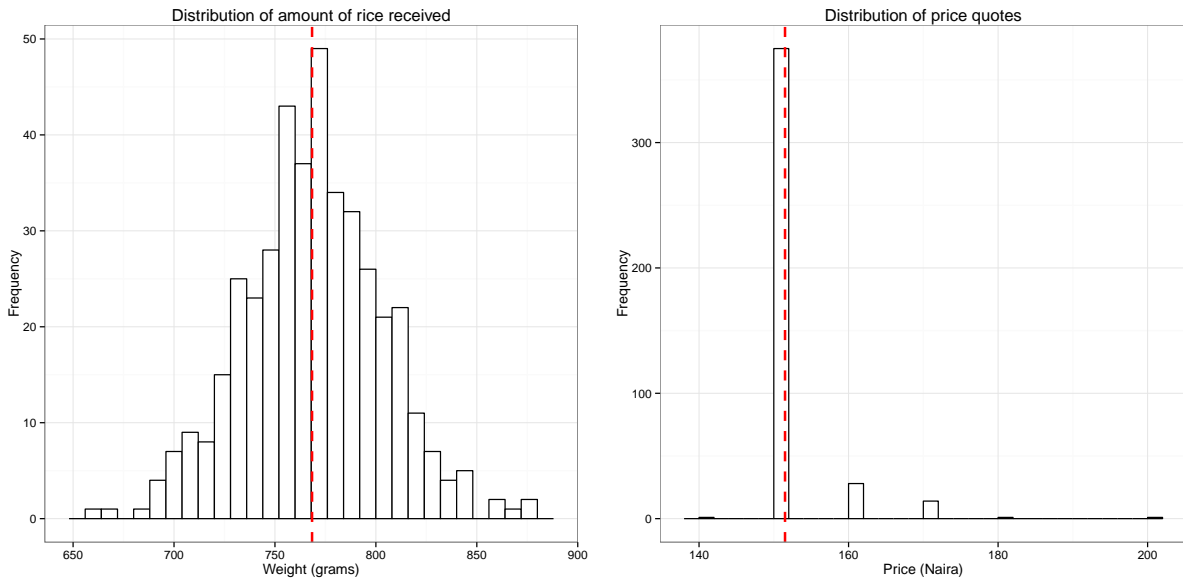


Figure 2: Distribution of rice data; dashed lines represent mean values.

Table 3 presents overall summary statistics for the rice data in real terms.¹⁰ We have dropped

¹⁰In 12 observations in the pilot, and 1 observation in the full audit, buyers were refused goods (in the case of rice) or told no housing was available. These cases are arguably the most clear-cut observations in which discretion seems to be present, inasmuch as in all cases confederates who approached these sellers both before and after the transaction in question were sold rice or offered housing. As such, dropping these cases seems inappropriate; it does, however, raise the issue of how to ‘quantify’ these transactions. In the results presented here we have treated cases in which buyers were refused service as the same as being offered 25% more than the maximum price offered by a seller and (in the case of rice) 25% less than the minimum weight offered by a seller. The story of findings presented here are, however, robust to treating these cases in a number of different ways.

observations where auditors forgot to put stickers on their bags of rice, leading to confusion about which bag of rice was associated with which seller. We have also dropped observations where the bag of rice was leaking, leading to uncertainty about its true weight, and we drop observations where the auditor reported buying from a child who was manning the shop. We also drop a small number of observations where the auditor expressed uncertainty about whether they had found the correct rice seller.

Table 3: Summary statistics

	count	mean	sd	min	max
Rice cost (Naira)	460	151.6957	5.769235	140	200
Rice weight (grams)	458	767.0862	35.07659	553.5	865
Ethnicity match	460	.5326087	.4994787	0	1
Confederate class	461	.483731	.5002781	0	1
N	464				

	(1) DI (Price)	(2) DI (Price)	(3) DI (Weight)	(4) DI (Weight)
Ethnic Match	0.00632 (0.00443)	0.00702 (0.00564)	-0.00574 (0.00513)	0.00398 (0.00651)
High SES	0.00844* (0.00388)	0.00922+ (0.00553)	0.0105* (0.00452)	0.0215*** (0.00641)
HighSES*Ethnic Match		-0.00150 (0.00754)		-0.0209* (0.00871)
Constant	0.0147+ (0.00767)	0.0143+ (0.00787)	0.0685*** (0.00890)	0.0636*** (0.00908)
Buyer Fixed Effects	Y	Y	Y	Y
R^2	0.099	0.099	0.039	0.052
Observations	457	457	455	455

Standard errors in parentheses

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: This table presents the main experiment finding. As above, the outcome is a seller-specific discrimination index; a higher coefficient for both price and weight indicates more negative discrimination – a higher price or lower weight. Buyer class, not ethnic match, drives discrimination for both price and weight. It appears the effect on weight is driven by the interaction of class and ethnic match, with higher class coethnics receiving the same amount of rice as lower class buyers of any ethnicity.

Table 4 demonstrates the main findings from this experiment. It shows that buyer class rather

than ethnic match seems to drive discrimination on both price and weight. When the interaction between class and shared ethnicity is excluded from the model, higher class buyers pay approximately 1% higher prices and receive 1% less rice. When the interaction between ethnic match and class is included it has no real effect on prices paid. However, it seems the weight effect is being driven entirely by the interaction of class and shared ethnicity; higher class co-ethnic buyers receive nearly identical weights to lower class buyers of any ethnicity. Higher class non-coethnic buyers receive quantities of rice that are about 2% smaller than all others (high class coethnics or lower class buyers).

5 Mechanisms

What could explain the differential treatment we expect to observe? Political scientists and economists theorize separately on this question. Habyarimana et al. (2009) provide evidence that the mechanism that explains why coethnics are more likely to cooperate is the credible expectation that shirking will be punished. This mechanism, along with most of the others they test, are plausible in *repeat* casual interactions, but unlikely in *one-off* casual interactions like small business transactions where there is a large chance two individuals will not encounter each other again. Habyarimana et al. find no support for a mechanism that could be at work in these everyday interactions: an other-regarding preference mechanism, where an individual gets utility simply by helping a coethnic over a non-coethnic (2009).

Two motivations for discrimination are typically offered by economists: taste-based and statistical discrimination. Taste-based discrimination is essentially the same as an other-regarding preference, where individuals get disutility from interacting with a certain group of people (Becker, 1957) and treating someone who is like you better might bolster your own sense of identity (Akerlof and Kranton, 2000). Statistical discrimination in our context would involve sellers inferring ability

to pay of a buyer based on the perceived average wealth of a group the buyer belongs to (Aigner and Cain, 1977; Arrow, 1973; Phelps, 1972), and offering price quotes accordingly. In this section of the paper we present suggestive evidence consistent with taste-based motives.

Figure 2 shows that there is little variation in price – the overwhelming majority of confederates are quoted 150 Naira for the dereka of rice – but there is wide variation in weight, with the minimum weight being 25% less than the maximum weight of rice received. With average rice weights of just over 750 grams, the 2% additional rice given to upper class coethnics (relative to upper class non-coethnics) is about 15 grams of rice in these transactions, or about .08 cups – a quantity small enough in real terms that it is likely frequently unnoticed by consumers.

That the favoritism extended to high class coethnics is on a dimension quite difficult for the consumer to observe, rather than the (nearly perfectly observable and comparable) price charged is quite interesting. It seemingly augurs for interpreting this differential treatment of high class coethnics as something other than an attempt to attract the repeat patronage of these coethnics – as economically rational statistical discrimination. That both buyers and sellers may not be focusing on repeat transactions is supported from survey evidence. Data from a representative on-going survey of informal traders in Lagos being conducted by one of the authors suggests that in an average week 51% of a trader’s customers have *never* bought from them before (current N = 631).¹¹

That the experimental design called for all confederates to inquire into the price of a dereka of rice in every single interaction may also suggest to sellers that this will not be a repeat customer; a regular buyer of rice would be unlikely to do this. This signals that the buyer is not a regular purchaser of rice *anywhere* and that not only will this be a one-off transaction with the particular seller, but that the buyer might not buy a dereka of rice again for quite a long time.

¹¹This survey is being conducted with Meredith Startz.

Two potential criticisms of this logic are possible. First, what if the price of a dereka is so widely known that no variation in pricing occurs? In fact, in 45 of the interactions the buyer paid a price other than the (modal) 150 Naira. Additionally, before the start of the experiment one of the authors asked the team of research assistants if any of them knew the price of a dereka of rice. This started a several-minute long discussion about what the price was. There was disagreement and uncertainty. Second, what if lower-class buyers are more sensitive to the amount of rice they receive? While this may be the case, the variation we observe here is among different types of higher-class buyers: coethnics and non-coethnics.

In short, we are not arguing that statistical discrimination never occurs in casual interactions, and future work could be designed explicitly to disentangle these two mechanisms in this context, leveraging innovative research designs from Altonji and Pierret (2001) and Charles and Guryan (2008). What we do argue is that the differential treatment we observe seems more consistent with taste-based motives and less consistent with a seller discriminating to encourage repeat patronage.

6 Robustness

The results presented here are robust to a number of alternate specifications. For the pilot data where some confederates pretended to be an ethnicity or religion other than their own, inclusion of dummy variables for when confederates were acting out of type does not alter the results, and the relationships between these dummies and outcomes of interest are not significant.

In addition, there were a handful of cases in which a confederate reported meeting a seller of a different gender than that reported by all other confederates who visited that location. It appears that on some days a husband and wife were both managing some of the shops in the study. The results presented here are robust to two kinds of treatment of these cases: 1) Treating these buyers

as having visited the predominant seller¹²; 2) Dropping these observations. (See Online Appendix Table 3 for evidence that the results still hold.)

These results are also robust to a variety of treatments of missing data resulting from sellers refusing to provide goods to buyers. (See footnote 10 for a fuller discussion of these cases.)

7 Conclusion

We have presented evidence that the nature of discrimination in casual interactions in the informal sector is in some respects similar and in other respects different from discrimination in more directly political interactions. In contrast to findings on differential treatment in political interactions, our data suggest that shared ethnicity alone does not affect discrimination. While we are reluctant to put too much weight on this finding given that we conduct the audit in one neighborhood of one city,¹³ in some sense this finding is not surprising. Recent research suggests differential treatment of coethnics is largely driven by expectations about repeat interactions, and we design our study to – as much as possible – make the transaction appear one-off.

We also find that confederates who appear higher-class receive less rice and are charged more for rice, but that sharing an ethnicity with the buyer moderates this effect regarding quantity (rice weight) but not price. That ethnicity only matters in interaction with class – with class more salient than ethnicity in the absence of their joint interaction – is intriguing, and opens up varied possibilities for future research regarding the salient dimensions of inter-group contact in developing countries. That the moderating effect is on the much less visible dimension of discrimination is suggestive, though by no means definitive, of taste-based preference rather than economically rational behavior. This is a mechanism that is not typically found to be present in cooperative/political

¹²This is the strategy employed by most American housing audits. For example, it is not seen as problematic if two auditors visit a different lending agent at the same lending institution, as the object of study is lending institution discrimination.

¹³Further, the null finding on religion could be specific to southwest Nigeria (?).

interactions (e.g. Habyarimana et al., 2009), and speaks to the potential for these identities to be the basis for political mobilization.

The results suggest we cannot assume discrimination in casual interactions mirrors discrimination in other types of interactions. The credible fear of social sanction, which is the mechanism that has been found to explain why coethnics are more likely to cooperate than non-coethnics, is unlikely to be operative in casual interactions that appear one-off. Nor does the expectation of future gain, which is the mechanism driving instrumental ethnic voting, seem to be operative in this context. While in developed countries discriminatory behavior in casual interactions is constrained by the law – in the UK it can be a criminal offense if a shop owner does not clearly display prices, and in America the federal government finances housing audits to enforce anti-discrimination law – in Lagos and many other contexts the police do not enforce equal treatment in informal sector interactions.

Discrimination in casual interaction is critical to understand as cross-group associational forms of engagement are unlikely to form in the absence of equitable inter-group everyday contact. Our results suggest that scholars and practitioners who wish to explain the emergence of effective local conflict mediation organizations or bolster such groups should pay attention to class cleavages within and across ethnic groups, and to the notion that as individuals of an ethnicity become richer, it is possible that lower-class members of the same ethnicity will increasingly see them through class, rather than ethnic, lenses. This may play a role in the perceived unrepresentativeness of some cross-group associations, a mooted potential obstacle to peace (International Crisis Group 2010, 24) and it seems plausible that cross-cutting cleavages such as economic status can stymie the ability of such organizations to develop a broader base.

A puzzle for scholars of diversity are the consistent but seemingly contradictory findings that diversity is associated with lower levels of inter-group trust, yet under certain conditions individual

contact with out-group members is associated with higher levels of trust. Stolle et al. resolve this puzzle by suggesting that individual inter-group contact mitigates the negative relationship between diversity and trust (2008). Allport (1954) has suggested that equal status is necessary for casual inter-group contact to promote trust. Future research might explore this finding and our own, and consider the connection between multiple salient identities, casual interaction, and trust. Our expectation would be that in contexts where taste-based discriminatory treatment is not constrained by the rule of law, casual inter-group interactions would 1) indirectly worsen trust by promoting sorting (i.e. individuals choosing to interact only with in-group members), and/or 2) directly worsen trust; in 8% of the housing interactions in this study the agents were explicitly discriminatory. One agent told a Hausa confederate that he refused to rent to Hausa people and another told an Igbo confederate he did not like Igbo people. One agent said: “You don’t look like a Muslim, you seem so nice.” Interactions such as these surely must have a pernicious effect on trust, and are almost certainly more common where legal sanction is absent. Though issues of endogeneity along with challenges in isolating mechanisms complicate research attempting to identify a causal relationship between trust and development, there is suggestive evidence of a positive feedback loop between the two (Bjørnskov, 2012; Delhey and Newton, 2005). Discrimination in these casual interactions could stymie economic development.

The bounds of group identity appear to be at least partially defined by shared class in the informal economy; ethnic identity can be affected by class differences. Most intriguing, perhaps, is the suggestion that class sometimes trumps ethnicity (as is the case for sellers interacting with low class buyers in our study) and sometimes not (as is the case for the very same sellers with high class co-ethnic buyers). This suggests we may need to think more carefully about how identities can be shaped and manipulated, with attendant implications for the conditions under which ethnic and/or class mobilization will and will not be effective and the broader political and redistributive

implications of such mobilization.

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