DISCRIMINATION AND FAVOURITISM AMONG WORKERS: UNION MEMBERSHIP AND ETHNIC IDENTITY

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Discrimination and Favouritism among Workers: Union Membership and Ethnic Identity[*]

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Abstract

This paper analyses how labour institutions and ethnic identity shape favouritism and discrimination among workers. We conduct an experiment with union and non-union South African mineworkers from various ethnicities. We examine in-group and out-group behaviour, emphasizing the relative ranking of these groups and their interaction. We find that unions create both in-group and out-group favouritism towards co-ethnic members and members of ethnic majorities. This favouritism is however undermined by unionised subcontract workers who experience precarious conditions. Furthermore, union members discriminate against non-unionised ethnic minorities. Finally, non-union members (primarily subcontract workers) discriminate against union members, particularly after negative shocks.

Keywords: discrimination, labour market segmentation, trade union, ethnicity, dictator game

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1. Introduction

Discrimination in the workplace is usually perceived as an employer-employee issue.[1] Labour markets are often inequitable, and numerous studies suggest that workers may experience differential treatment based on personal traits such as gender, nationality, religion, and so forth. Moreover, labour contracts can intrinsically engender distinctions among workers through different wages, job security, and contractual benefits. The economic analysis of labour discrimination has thoroughly explored the possible roots of these biases - ranging from statistical discrimination, to preferences or tastes, to models of firms' demand for different types of workers - but mainly focusing on discrimination from the employers. However, to date, there is still a limited understanding of whether a discriminatory workplace can also influence attitudes *among* workers, inducing them to treat their peers according to the observed categorizations.

As societies become more globalized and heterogeneous, and jobs more skewed and polarized, particularly due to automation, relations among workers are placed under increasing pressure, especially during economic downturns (Jivraj, 2011; Goos et al., 2009). In this context, social tensions could exacerbate competition between employees with different backgrounds and positions. Does labour status influence how a worker is treated by colleagues? Does this interplay with other personal and social characteristics, which constitute part of an individual's identity outside the workplace? We answer these questions using a lab experiment in the field conducted in a highly segmented labour market, the coal mining industry of South Africa. In particular, we compare workers' behaviour towards their peers in response to random economic shocks, differentiating on the basis of personal characteristics and labour status. We find ample evidence of discrimination and favouritism along existing ethnic lines and in relation to labour status, which we classify and interpret in light of the latest psychology research.

In recent years, experimental economists have increasingly adopted lab experiments based on the insights from the psychology literature on groups,[2] in order to study the economic consequences of discriminatory and preferential behaviour (Lane, 2015).[3] Two broad mechanisms emerge from this literature: altruism towards people with similar status and negative biases against outsiders of one's own group (Charness et al., 2007; Heap and Zizzo, 2009; Chen and Li, 2009; Eckel and Grossman, 2005). In our study we find that, beyond the in-group versus out-group dichotomy, the relative hierarchic position of each group also matters, and thus we carefully differentiate the 'ranking' of workers' groups. Moreover, these studies typically assign group identities artificially in the lab, while we choose to rely on existing personal characteristics. Few other articles consider actual individual traits to determine group affinity. One example is the literature on ethnic preferences in the lab, whose findings are somewhat heterogeneous - ranging from evidence of

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[1]This literature dates back at least to the seminal works of Becker (1957), followed over the years by numerous other works, such as Arrow et al. (1973) and Heckman (1998).

[2]This technique was first introduced by Tajfel and Turner (1979).

[3]The use of this specific methodology has gone hand in hand with a burgeoning interest in the general economics of social identity and discrimination (Chen and Mengel, 2016).

discrimination towards minority groups (Fershtman and Gneezy, 2001), to no co-ethnic bias (Berge et al., 2015). These mixed results highlight how the relevance of certain characteristics varies depending on the context, and call for a nuanced analysis of how ethnicity interacts with other characteristics directly linked to economic outcomes, such as job status. However, most contributions from lab experiments looking at labour markets have examined primarily how to extract effort from workers, or the interplay between employers and employees, but never intra-worker dynamics (Gachter and Fehr, 2002).

In our research, we link the generosity of workers in the lab to their actual characteristics - labour status, ethnic identity and gender. We disentangle favouritism and discrimination within groups and along hierarchic lines in response to economic 'shocks' (lotteries). Conceptually, the behaviours observed are analogous to what Feld et al. (2016) defined *endophilia*, *endophobia*, *exophilia* and *exophobia*, where the prefix 'endo' refers to behaviour towards people like oneself, and 'exo' towards people with different status, combined with the suffixes 'philia' and 'phobia' for favouritism and discrimination, respectively. However, we enrich their mapping of biases by adding the hierarchical dimension: if a worker belongs to a dominant group he might not adopt the same behaviour as someone from a subordinate class, and out-group interactions can be asymmetric depending on who has a higher or lower status (similar to the analysis of status by Fiske et al., 2002). Our results are consistent with evidence from the psychology research, for example in terms of out-group favouritism towards people with higher status (Jost et al., 2004; Ashburn-Nardo and Johnson, 2008). Our work is thus rooted in classic economic theories about the value of identity, whereby individuals derive utility from being part of a social group (Akerlof and Kranton, 2000), but in parallel also on the insights from the psychology of inter-group relations (Tajfel and Turner, 1979; Brown, 2000; Balliet et al., 2014).

Our findings are the result of multiple dictator games in which coal mine workers shared the outcomes of different lotteries (positive winnings or negative losses) with fellow miners, knowing only some information about the characteristics of the opposite player. These characteristics reflect the most salient features that spur discrimination in the South African mining sector. In this context, discrimination is prompted by a high degree of social segmentation (Barr and Oduro, 2002) and by the dual labour market structure that separates unionised workers with favourable working conditions from non-unionised workers, typically with temporary contracts and lower wages. In this context, we find that the trade union generates strong in-group favouritism, acting as an 'elite' club, except when the recipient belongs to a subordinate ethnic group. Moreover, this positive union bias vanishes if the dictator is a subcontracted worker with a less secure job. Union members also exhibit top-down favouritism towards non-union members who share their same ethnicity or belong to a larger ethnic group, but discriminate against non-unionised ethnic minorities. We also observe bottom-up discrimination from non-union members towards union members, particularly in the case of negative shocks and subcontracted dictators, although workers from larger ethnic populations are never targeted.. Surprisingly, discrimination also takes place among non-union workers, who penalise those in the same condition (endophobia), especially when they are subcontracted, and particularly in response to negative economic shocks.

The rest of the article proceeds as follows: section 2 provides a detailed background for the South African mining context; section 3 presents a simple conceptual framework and our hypothesis on the effect of status on altruism; section 4 discusses the experimental design, the data, and the empirical strategy; section 5 comments on the key results; section 6 discusses the main interpretation of these results and some caveats; and finally Section 7 concludes.

2. Background: unionization, ethnicity and subcontracting in South Africa

The question of identity and solidarity based on ethnicity and union membership is deeply rooted in the infamous system of migrant labour that characterizes the South African mining industry. The discovery of gold on the Witswatersrand in 1886 led to an organized recruitment of African migrant workers by the Chamber of Mines, both from native reserves within South Africa (which, later, became the so-called *homelands*) and from neighbouring countries such as Botswana, Lesotho, Malawi, Mozambique and Zimbabwe (Horner and Kooy, 1980). South African mining houses adopted a deliberate policy of recruitment across a wide range of ethnic groups, to ensure that each mine had sufficient ethnic diversity to curtail the risk of labour-related collective action (strikes, riots, etc.). Migrant mineworkers were typically offered fixed term contracts of 9 to 18 months, and were housed in compounds consisting of single-sex hostels with communal dormitories, while their families remained in their rural homes. To prevent the emergence of class consciousness in the work force, black unionization was generally illegal.

Instead, the mining houses encouraged forms of ethnic-based consciousness by allocating jobs and hostel rooms based on "ethnicity" (Bezuidenhout and Buhlungu, 2011:245). The mining industry has often recruited workers on the basis of particular skill sets attributed to certain ethnic groups.[4] Mineworkers also formed collectives along ethnic lines in order to compete for resources, which at times resulted in the so-called "faction fights" (Breckenridge, 1990; Breckenridge, 1998b; Breckenridge, 1998a; Elder, 2003; Bezuidenhout and Buhlungu, 2011). Far from being irrational tribal violence as interpreted by the mining houses, many of these faction fights in fact originated from the differential treatment of workers, evident in contracts of different duration and uneven access to jobs based on ethnicity (Horner and Kooy, 1980: 11-12).

It was only in 1982 that black mineworkers were permitted to form a national labour union, the NUM (National Union of Mineworkers). One of NUM's principal goals was to build and promote solidarity among its members and confront the mining houses' attempts to divide workers along ethnic lines (Moodie and Ndatshe, 1994; Buhlungu and Bezuidenhout, 2008). It was particularly successful in doing this (Allen 2003b;

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[4]Thus, there is common belief that *Basotho* workers excel in the art of shaft sinking and are 'good leaders'; *Zulu*-speaking workers are skilled in production sections, while the *Swazi* workers are highly competent in drilling machines, and both categories of people are also good at operating percussion machines; the *Xhosa* workers excel in smelting operations and running furnaces, but are also good at doing operating jobs such as driving locos and operating scoop trams; the *Shangaan* workers have excellent mechanical skills, and are competent artisan's aides and team leaders (Record of the Commission of Enquiry into the Violence on Three Goldfields Mines Justice - Myburgh, 1996; Crush et al., 2001: 12).

Bezuidenhout and Buhlungu, 2006) and became one of the most powerful unions in the country. Yet, in the post-apartheid era, the union movement in general, and the NUM in particular, have suffered from divisions along ethnic lines, especially in times of competition for dominance as illustrated by the Xhosa and Sotho divide during the 2006 leadership contest in the NUM (Buhlungu and Bezuidenhout, 2008). In addition, in an environment where numerous union officers have subverted their mandate for their own personal gains (selling of positions, and other forms of corruption by the shaft stewards), non-class identities have typically re-emerged at the expense of union solidarity (Buhlungu and Bezuidenhout, 2008). Thus, there have been allegations that, at the branch level, ethnic favouritism and corruption have motivated numerous promotions (into skilled miners positions as well as supervisory and managerial positions) obtained by union members (Buhlungu and Bezuidenhout, 2008).

In addition to the resurgence of ethnicity or "tribalism" (as it is often called in the South African context), since the mid-1990s unions have faced the challenge of increasing subcontracting arrangements, whereby workers are hired indirectly through brokering agencies (Crush et al., 2001).[5] Subcontracting is particularly important in the growing sectors of the industry such as coal mining, where it represents around 43% of employment (HSRC, 2011:14). To tackle the issue of subcontracting, the NUM has adopted a two-pronged approach combining the defence of existing jobs undermined by the resurgence of subcontracting arrangements, and the organization of subcontract workers into the union. However, local branches have been reluctant to organize subcontracted workers with the exception of those from the minority that possess a permanent position.[6] Organizing the subcontract workers with short-term contracts seems futile because they are typically dismissed when they join a union. Thus, the focus has been on the defence of union members at the expense of contract workers who are often perceived as unfair competitors ready to accept lower wages and fewer benefits for the same or often more dangerous jobs.

3. A conceptual framework about groups and hierarchies

In our empirical analysis, we will focus on the effect of labour and ethnic status using South Africa's mining sector as our laboratory, because of its strong unionisation and sheer ethnic diversity, as outlined in the previous section. But first, in this section we present a general framework to analyse how relative status may influence individual behaviour with regard to sharing gains and losses. Conceptually, this analysis could be applied to any other context with strong hierarchical demarcations between groups (religious casts, immigrants, etc.), however the labour market provides a well-defined setting to examine these mechanisms,

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[5]Subcontracting arrangements represent a triangular contract of employment involving a *user firm* (in our context, the mining company that requires the labour), an *intermediary* or *labour broker* (temporary employment agency or a subcontractor), and an *employee* (a mine worker who is employed by the labour broker) who actually performs the required tasks. In the mining industry, subcontracted employees typically work under precarious conditions relative to workers directly employed by the mines (they are given short-term contracts with low pay and are required to perform the most dangerous jobs).

[6]Only 10 percent of the NUM's members are employed by subcontractors, most of whom have a permanent position with the subcontractor (Buhlungu and Bezuidenhout, 2008).

in a context where status relates clearly to economic outcomes. In the workplace, in fact, hierarchies are an explicit institutional component and translate into wage or contract duration, making the benefits of a given labour condition quite salient for the workers. Presumably, labour institutions such as trade unions shape workers' perceptions regarding their rights, their position and their ranking relative to others. While the main purpose of trade unions is to enhance the bargaining power of employees against capital owners and firm managers, ironically they may also sow division among workers by creating an insider/outsider fault line, whereby the union members enjoy preferential treatment. Table 1 presents the mechanisms and terminology to characterise how a worker's status could prompt greater or lesser generosity.

Table 1: DEFINITION OF MECHANISMS

	POSITION OF THE OTHER WORKER	FAVOURITISM Generosity ⇑	DISCRIMINATION Generosity ⇓
Same status (In-group)	Both high status (elite club)	*H-endophilia*	*H-endophobia*
	Both low status (minority group)	*L-endophilia*	*L-endophobia*
Hierarchy (Out-group)	Lower status (top-down)	*L-exophilia*	*L-exophobia*
	Higher status (bottom-up)	*H-exophilia*	*H-exophobia*

When people share a common status, the experimental literature frequently observes an in-group bias in a variety of different games, with more generosity towards other group members (Chakravarty and Fonseca, 2014; Charness et al., 2007; Chen and Chen, 2011). However, we want to further distinguish people who share a common *high* status, being part of what is perceived as an 'elite' club, or alternatively a less privileged condition, like minority groups. We do not assume that in-group bias should be constant across groups with different rankings: we consider the possibility of endophilia and endophobia (positive or negative treatment of members of the same group), qualifying it on the basis of high status (*H*) or low status (*L*). Similarly, when people do not belong to the same group, the perception of a relatively higher or subordinate rank can influence the expectations about their 'deserved' payoffs. We therefore move beyond the concept of out-group favouritism or discrimination, and instead compare the relative standing of two people with characteristics giving rise to a hierarchy. Again, we combine the terms exo (for out-group) -philia and -phobia with an *H* for the behaviour displayed towards a person with higher status (bottom-up), and *L* if the person has lower status (top-down).

Table 1 focuses on discrimination and favouritism arising exclusively in one dimension of status. In practice,

however, multiple traits interact to signal group affinities and potential hierarchies. The overall degree of generosity depends on how different statuses compound each other, or cancel out specific in-group or out-group biases. We illustrate graphically how personal characteristics and labour status map into different interactions of relative statuses in Fig. 1 in the Appendix. This approach considers two dimensions: personal traits such as gender, age, race, religion or similar characteristics, and labour status, for instance wage, position, duration of contract, union membership. An inner circle represents workers with similar status, while the outer circle represents different relative positions. Moving in one direction, the recipient's status becomes higher, while in the opposite relatively lower. Any relation between two workers can be seen as a different point at the intersection of these dimensions. The goal of our empirical analysis is to consider the economic behaviour resulting from the interaction of different traits. Note that these different characteristics do not necessarily occur together randomly. For instance, selection into the trade union may stem from a worker's ties with the most powerful social groups, or with groups that were historically more represented in the labour market. Disentangling these effects requires some careful considerations, which we address empirically thanks to the highly controlled setting of the lab.

Our starting hypothesis is that we might observe different types of in-group and out-group behaviours with workers that belong to different points in the labour hierarchy. In a segmented context like the South African coal labour market, we expect that discrimination and favouritism should take a more articulate form that follows the hierarchical divisions present in that setting. Naturally, the motivation behind any such behaviour depends heavily on the type of interaction, particularly if there is any expectation of reciprocity, retaliation or reputation-building in repeated encounters. Therefore, in our lab experiment we focus on the simplest case, in which players cannot expect any direct returns from favouring or discriminating against other players: we use an anonymous dictator game, without any further interplay between two workers. From an economic standpoint, without any repeated interactions there should be no reason to discriminate against or favour specific categories of workers. Yet dictator games have often captured deviation from the self-interested behaviour expected of a classic *homo economicus*, and we hypothesise that workers who experience a discriminatory workplace on a daily basis may adjust their beliefs and behaviour accordingly.

4. Experimental design

To test the above hypotheses on how relative status influences resource sharing, we conduct a lab experiment in the Mpumalanga Province, South Africa's major coal mining region. Experimental lab design has the well-known advantage of enabling highly controlled interactions among respondents. This is particularly useful for the study of discrimination, since many unobservable confounding factors could be driving observed outcomes in data from actual social interactions. However, lab experiments create aseptic and artificial environments that capture only indirectly real economic motivations. To mitigate this problem, our lab experiment is conducted in the field with a subject pool (mineworkers) that is directly concerned with the

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issues studied - namely, union membership and ethnicity. In this context, we do not assign a fictitious status to players, but rather match them randomly on the basis of their true characteristics.

Our sample comprises mostly South African workers (except for 5 players born in Mozambique) belonging to different ethnic groups (see Table 4).[7] Participants were drawn from a wide range of employment statuses: about half were unionised and half non-unionised, either directly employed by different mine houses, or subcontracted. Each session of the experiment involved a group of approximately 30 mineworkers who played repeated rounds of the dictator game. Each round consisted of a simple lottery that could result in either a gain or a loss of a monetary prize, which was then split between a *dictator* and a *recipient*. Players had an initial monetary endowment, so that the losses from a negative lottery would be subtracted from it. At the end of a session, participants would randomly draw one round of play, whose payoff was used for their final payment.

Initially participants played the dictator game sitting in pairs, alternating in the role of dictator and recipient, to capture any learning process about the rules of the game, and to display the consequences of their choices in a face-to-face interaction.[8] Afterwards, each player decided how to split 50 further rounds of lotteries in anonymous matches, whereby the dictator had no physical contact with the recipient.[9] The anonymous game provided three possible sets of information to the dictator. *Treatment 1*: no information is provided to the dictator, apart from the magnitude of the loss or gain of each lottery; *Treatment 2*: the dictator receives additional information about the recipient of the splits for each lottery, namely gender, union status and ethnicity (or sometimes a blank); *Treatment 3*: in addition to the information received in Treatment 2, the dictator has the option of signalling his/her own union membership and ethnic status, so that the recipient not only receives a share of the lottery, but also sees the characteristics of the dictator who made the choice. Finally, the participants completed a survey questionnaire at the end of the games, to provide some personal characteristics of the participants. A full protocol for the games, with the specific instructions that the workers were given, is attached in the Appendix.

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[7]Since the eighties the coal mining sector in South Africa (unlike gold and platinum mining) has moved to a local workforce of domestic migrants (Jeeves and Crush, 1995; ILO, 1998), thus most coal miners are South African.

[8]Players also experienced a few rounds of an ultimatum game, whereby the recipient of an offer could refuse the division of the lottery and leave both players empty-handed. This game ensured that workers were well aware of the effect of their offers on other participants. The ultimatum game forced mineworkers to think more carefully about their sharing decisions, but this could also bias the results towards more generosity. However, since in the face-to-face games labour status and ethnic characteristics of the players were not made salient, we are not concerned that these rounds would affect the *differential* treatment of players with certain characteristics. Communication between players was kept to a minimum to avoid undue influences from recognizing common language or other peer effects. In practice, the dictator would write the amount he wanted to keep for himself on a calculator, and a research assistant would subtract it from the lottery before showing the recipient the balance that accrued to him.

[9]Each player in a given session S was paired with players in session $S + 2$ to ensure full anonymity.

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4.1. Data

Our sample comprises 287 players who played 10 rounds of face-to-face games and 50 rounds of anonymous games (10 rounds for Treatment 1, 20 rounds for Treatment 2, and 20 rounds for Treatment 3) each. A summary of the average sharing behaviour in each type of game is presented in Table 5 in the Appendix. Naturally, players are more generous in face-to-face games, but the results from these initial rounds are less reliable, because of unobservable interactions that could occur between pairs, and because players were still learning about the game. Thus, for our analysis, we rely mostly on the anonymous games. Fig. 2 shows the distribution of offers to the recipient in the anonymous game. Most splits cluster around three focal points: either a 50-50 equal sharing, especially in the case of losses and small gains; a 100% appropriation of gains by the dictator, leaving nothing to the recipient; or a 100% allocation of losses to the recipient, who bears all the burden of a negative lottery. There is however a certain degree of variation covering all possible divisions of lotteries, and we want to test if this variation is driven by the personal status of the recipients.

Since we are working both with positive and negative lotteries, we use an unambiguous measure of altruism (*Generosity*) as our main dependent variable. It is defined as the percentage of the lottery gain that accrues to the recipient, or the percentage of the lottery loss that the dictator keeps for himself. Thus, the level of generosity is zero whenever the dictator keeps 100% of positive lotteries for himself or offers 100% of negative lotteries (see Fig. 3). On average, the level of generosity reaches 28% in the anonymous games. That is, on average, dictators allocate 28% of positive earnings to the recipient and keep 28% of losses. This share is in line with the literature, and extremely close to the figure cited by Engel (2011) in his review paper.

The summary statistics in table 5 show that providing additional information as reflected in Treatment 2 and Treatment 3 does not meaningfully alter the sharing decision, on average. However, the specific characteristics highlighted by the information treatments could trigger different responses, as characterized in the mechanisms from our conceptual framework. Thus, the key independent variables for our analysis are various combinations of the recipient's union membership and ethnicity. While these characteristics naturally determine group status, and while it is quite unambiguous that union members had a more privileged labour condition, defining rankings for ethnic groups can be quite controversial. Our categorisation relies on the ethno-linguistic composition of Emalahleni population using the 2011 population census. We define a variable capturing the 'ranking' of ethnic minorities, which takes higher value for ethnic groups with smaller population in the region (as illustrated in Table 4).[10] Ultimately, however, we do not intend to define the most populous groups as 'elite' clubs in the same way we did with the union, because for ethnicity this could be controversial. Bearing in mind South Africa's difficult history of segregation and racial subjugation, we will only refer to ethnic groups that are more represented in the region, as they have larger populations, and minorities with smaller populations.

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[10]We also try a number of different definitions, for instance excluding English and Afrikaans, and check for each group separately.

4.2. Empirical model

In order to test for changes in generosity driven by various forms of group biases and hierarchies, our baseline empirical model takes the following form:

$$G_{ij} = \mathbf{B}_{ij}\beta + \mathbf{X}_{ijk}\delta + \alpha_i + \varepsilon_{ij} \tag{1}$$

where G_{ij} is the measure of the dictator's (player i) generosity towards the recipient (player j). The matrix $\mathbf{B}_{ij} = (L_{ij}, V_{ij}, L_{ij} \times V_{ij}, S_{ij})$ contains the vector of four baseline controls that we include in every regression, to capture the specific features of each lottery that the pair is facing, namely a dummy for negative lottery L_{ij}, the absolute value of the lottery, V_{ij}, their interaction, and a dummy controlling for whether the dictator had the option to signal his characteristics, S_{ij}.

The key explanatory variables of interest $\mathbf{X}_{ijk}$ pertain to information about the relative status of the recipient. Information varies across the membership/ethnic identity dimension (k). Our experiment also included information on a gender dimension, but since this was insignificant in all results we omit it for brevity. We focus on three aspects of this k dimension: (i) the *absolute status* of a player, using a variable that captures whether the recipient belongs to a union, or to an ethno-linguistic minority (either a specific group, or the ordering discussed before); (ii) *matches* of union status or ethnicity, with a binary variable indicating whether dictator i and recipient j are both unionised or not, or whether they belong to the same ethnic group; and (iii) *hierarchy* of union status or ethnicity, namely the relative standing of the dictator relative to the recipient. Unless otherwise specified, the independent variables refer to the recipient's characteristics (j). For example, *Lower union status$_j$* indicates that the dictator is making an offer to a recipient with a lower union status than his, namely a non-union member, whenever the former is unionised.

One key issue in identifying the effect of relative union status and ethnicity on favouritism and discrimination is that multiple factors determine why a person is part of a trade union, and these are often unobservable traits (family wealth, religious values, traditions, personal ambition) that could all influence relative generosity. Therefore we cannot meaningfully compare discrimination and favouritism across individuals. Instead, we rely on *within* individual variation, noting how the same player changes behaviour depending on the relative status of his opponent. Hence, we always include individual fixed effects α_i, so that all our analysis is for variations within the choices of a single player.

5. Results

The main hypothesis tested in our lab experiment is that groups do not only matter for their own sake, but relative to one another, so that the perceived ranking of these social categories guides individual behaviour

beyond the classic in-group and out-group biases. This section presents some evidence for hierarchical dynamics in the context of our lab experiment with participants from a segmented dual labour market. The results of the anonymous dictator games confirm some new forms of discrimination and favouritism that can be interpreted as the mechanisms in Table 1. Broadly, we find that in-group favouritism happens mostly in the case of high-status groups (*H-endophilia*), while members of subordinate labour status, if anything, might display a negative bias towards each other (*L-endophobia*). Interactions of union and ethnic status are also fundamental, and guide the generosity towards people of other groups, again depending on the relative standing of those groups: top-down favouritism from union members usually flows toward out-group workers from a larger ethnic group, while penalizing those from a smaller ethnic group; and bottom-up discrimination from non-union members does not target workers from the largest ethnic groups.

We now qualify these results more precisely in three cases. First, we investigate how the status of the recipient player - union membership, ethnic identity and, importantly, their interaction - determines the generosity of the dictator's offer. We distinguish cases of favouritism from discrimination, rather than having one effect relative to the other. Next, we examine a specific case that should be relevant in this dual labour market, namely how the dictator's behaviour changes when he is a subcontract worker who typically holds a less secure and less remunerated position. Third, we examine these behaviours when we consider only the cases in which the dictator is faced with a loss from a negative lottery.

A crucial assumption for the validity of our results is that all rounds are played with a standard understanding of the game, and no learning is taking place. Table A1 reports the baseline results without any specific characteristics of the recipient (Treatment 1), and shows that generosity decreases with the number of rounds a player experiences, which might indicate some residual learning (Column 1). However, once information about the recipient and signalling is taken into account (Treatment 2 and 3) –which automatically entails more rounds being played –the number of rounds becomes irrelevant. Consequently, it is safe to assume that most of the learning took place during the face-to-face stage, prior to the anonymous games. As a further check, we will restrict our analysis to highly 'consistent' players, who choose the exact same sharing when faced with two identical lotteries in the course of the anonymous games.[11] Having discussed the validity of our assumption, we now show how information about the particular characteristics of recipients impacts the generosity of the dictators.

5.1. *Status of the opposite players*

Table A2 presents the effect of different pieces of information about the recipient on a dictator's generosity. Information about the recipient's union status (membership or not) and ethnicity does not in itself affect how

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[11]This is not meant to be a normative judgement about a player's strategy or rationality. We only want to restrict our analysis to those players who seem to have a stable strategy for splitting the lotteries. So, if a player receives a lottery of R20 and no information, and on one occasion he decides to keep half, and on another to keep 75% of it, he is registered as 'inconsistent' and dropped in these robustness tests (see online Appendix).

altruistic the dictator is (Column 1); what matters is the *relative* status of the recipient compared to that of the dictator. We observe a 1.3 percentage point increase in generosity toward recipients from the same ethnic group (Col. 2 and 3). However, common labour status matters only when unionised dictators are paired with unionised recipients: under such circumstances, the dictator exhibits increased generosity. While union members seem to favour their comrades (endophilia), non-union members do not exhibit such favouritism (Col. 3). Favouritism also occurs primarily among members of the major ethnic groups (Col 4). These findings suggest the existence of in-group favouritism particularly within the high-status groups, what we previously defined as *H-endophilia* - or elite-club effect - within trade unions and the largest ethno-linguistic groups. In the South African context, a similar behaviour has been documented outside of the labour market by van der Merwe and Burns (2008), who find favouritism among white students, but not among other groups.

In the same spirit, we explore the effect of hierarchies in union status or ethnicity (Table A3). Here we can see the flip side of the previous result, with evidence of relative discrimination against workers with lower union status: that is, a unionised dictator tends to make relatively lower offers when faced with non-unionised recipients.[12] For ethnicity, we find that dictators are significantly less generous with recipients from smaller ethnic groups. To understand more clearly this result, we break it down into each individual ethnic group (Table A11 in the Online Appendix). We find that the in-group positive bias predominantly appears in Zulu matches (by far the largest ethnic group in the region), but also partly from Swati and Tsonga.

The magnitude of these effects on generosity ranges between 1 and 2 percentage points.[13] Despite its statistical significance, this reduction in the offer is not economically sizeable. However, given that we are only exploiting within-individual variation, what matters for our analysis is that players significantly change (at the margin) their behaviour by showing less generosity depending on a group's relative status. From the point of view of a purely rational and self-interested player, the dictator game should not yield any generosity at all. However, if we assume some utility from altruistic behaviour, there is rational scope for generosity, which reconciles the theory with the empirical finding that people do usually offer non-trivial amounts in most dictator games (Engel, 2011). Even so, we might expect a constant degree of altruism across groups, given the anonymity and the lack of reciprocity intrinsic in the game. Nonetheless, in practice, players aren't extrapolating only from information provided in the game, but also presumably from heuristics based on real-world behaviour. These kinds of extrapolations are what the game is trying to learn and they are in fact appearing in the results. What is interesting in particular is that the dictator's sharing decision changes once he receives information about the recipient's union status and ethnicity. We will discuss what could be driving this choice in section 6., but first we examine in more detail the mechanisms behind these specific choices.

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[12]This result is by construction the opposite of the previous finding of in-group favouritism within the union from Table A2, since these are *relative* results: a unionised dictator favours union members relative to non-union members, or conversely discriminates non-union members relative to union members.

[13]Thus, given that the average dictator would typically offer 28 Rand and keep 72 from a 100-rand lottery, a recipient from a lower union status would receive just a little less (26 to 27 Rand) rather than the 28 Rand if he had matched the status of the dictator as a union member.

5.2. Discrimination or favouritism?

Our findings so far indicate that unionised workers are more generous towards their fellow union comrades than to non-union members. Similarly, all workers tend to be ethnocentric as they are more generous towards their fellow ethnic group members, relative to workers from fringe or lower status groups. These findings, however, do not indicate whether these differential treatments stem from favouritism towards or discrimination against workers with certain characteristics. To disentangle favouritism from discrimination, we need to move beyond a comparison of relative outcomes, and determine a 'neutral' behaviour from which the dictator can depart. Thus, we now examine the effect of disclosing information about the recipient's union status and ethnicity, compared to the cases when the dictator had no information about the characteristics of the recipient, as per Treatment 1. Hereafter, all our results will refer to behaviours of dictators compared to the 'no information' baseline.

Tables 2 and 3 below summarize our findings for the cases under analysis: first the effect of one specific trait of the recipient (compared to no information), then the interaction of ethnic and labour status, and finally the behaviour of subcontracted dictators in interaction with the recipient's status. These effects are also examined under negative lotteries, when dictators had to share a loss. In the summary tables, results that are robust to the exclusion of non-consistent players as defined above are reported in bold. In parentheses are the links to the full regression table that yields the result, and which is all available in the Appendix.

If we consider single characteristics, separating ethnic and union status, from the first column of the summary Tables 2 and 3 we observe that both ethnicity and unionisation induce significant in-group favouritism (*endophilia*).[14] Instead, when the two players had different status, ethnicity and union membership seem to operate in opposite directions. While ethnicity induces significant and robust top-down discrimination towards respondents from smaller ethnic groups (*L-exophobia*), union members tend to display favouritism not only towards other fellow union comrades, but also some (weak) positive bias towards those in a less favourable position, namely non-union members (*L-exophilia*). Conversely, while non-union members discriminate against the most privileged union members with a bottom-up negative bias (*H-exophobia*), members of larger ethnic groups experience favouritism from ethnic minorities (*H-exophilia*). This latter result may seem counter-intuitive, however the psychology literature has repeatedly identified such behaviour, whereby members of subordinate groups are particularly altruistic towards people with more privileged positions (Jost et al., 2004; Ashburn-Nardo and Johnson, 2008).

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[14]For ethnicity we can examine each individual language group separately (Tables A12 and A13 in the Appendix). There are some specific groups driving this effect, for instance the two major groups, Zulu and Pedi, receive on average higher offers than the uninformed baseline, and the small group of Afrikaans receives lower offers. There are also some matches for specific ethnic groups (Tsonga and Sotho) that increase generosity. These results should be taken with some caution as there was limited variation in within-player matches with every possible ethnicity, making the available observations fewer.

Interplay of labour and ethnic status

Given the multi-dimensional nature of the groups under consideration, we must also examine the extent to which differential behaviour occurs when union status and ethnicity are considered together. The second column of Tables 2 and 3 examines how dictators respond to bundles of respondents' characteristics, that is the simultaneous interplay of certain ethnicities and union status. Due to the insufficient amount of combinations available for each single player, we cannot tease out simultaneously this interaction effect and the single separate effects of union and ethnicity. So our results capture the marginal effect of the two characteristics compared to the no-information case, rather than on top of a union effect or an ethnic effect. We comment on the results from the point of view of union membership in Table 3, but the results are symmetric and the coefficients are the same if we look at these interactions from the point of view of ethnicity results, from the second column of Table 2. These results qualify more clearly the previous findings. In-group generosity based on labour status occurs mostly when there is a union match and at the same time an ethnic match or a recipient from a more numerous ethnic group. Similarly, the top-down generosity from union members targets ethnic matches or those from larger ethnic groups, but turns into discrimination when the recipient is from a smaller ethnic group. Non-union members discriminate against union members from the bottom of the hierarchy, but only if the recipients belong to a minority ethnic group.

Table 2: Summary of results for ethnic status

	FULL SAMPLE		LOSSES	
	(1)	(2)	(3)	(4)
	Status	Interaction	Status	Interaction
In-group	1.1*** (A5)	**2.5**** if match union, 2*** if lower union (A6)		5.2** if match union (L6) -4.6** if higher union (L7)
Top-down	**-1.6**** (A5)	**-2.1*** if lower union, **-3.3**** if higher union (A6) [NOTE 1]		
Bottom-up	1.9*** (A5)	**4.4***** if match union, **3.7***** if lower union (A6) [NOTE 2]		4.3** if match union (L6) -3* if match non-union (L7)

In parenthesis the number of the regression Table (Appendix). In bold the results robust to the exclusion of 'inconsistent' players (Section 5.).

*NOTE 1 - considering only consistent players, this effect is also present as -2.9** if also match union (C6).*

*NOTE 2 - considering only consistent players, this effect is present as 2.5*** if higher union, 2.1** if match non-union (C7).*

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Table 3: Summary of results for union status

	FULL SAMPLE			LOSSES		
	(1) Status	(2) Interactions	(3) Subcontracted	(4) Status	(5) Interactions	(6) Subcontracted
High in-group	**1.9***** (A4)	2.5** if match ethnic, **4.4***** if larger ethnic (A6) [NOTE 1]	**3.4***** if sub=0; **0.3***** if sub=1 (A8)	2.6** (L4)	5.2** if match ethnic, 4.3** if larger ethnic (L6)	3.3* if sub=0, insignificant in interaction (L8)
Low in-group		[NOTE 2]	**3.5***** if sub=0 (A9)			
			-1.5*** if sub=1 (A9)	-3.4*** (L4)	-3* if larger ethnic (L7)	
Top-down	1.3* (A4)	2* if match ethnic, **3.7***** if larger ethnic (A6) **-2.1*** if smaller ethnic (A6)	**2**** if sub=0, insignificant in interaction (A8) [NOTE 4]			
Bottom-up		[NOTE 3] **-3.3**** if smaller ethnic (A7)	-1.1** if sub=1 (A9)	-2* (L4)	-4.6** if match ethnic (L7)	-3.5*** if sub=1 (L9)

In parenthesis the Table in the Appendix where the result can be found. In bold the results that are robust to the exclusion of 'inconsistent' players, as per Section 5..

NOTE 1 - as a robustness check, when considering only consistent players, this effect is also present as -2.9** if smaller ethnic (C6).

NOTE 2 - considering only consistent players, this effect is present as 2.1** if also larger ethnic (C7).

NOTE 3 - considering only consistent players, this effect is present as 2.5*** if also larger ethnic (C7).

NOTE 4 - considering only consistent players, this effect becomes negative, -0.26 (C8).

Subcontracted workers

The third column of the summary of union status in Table 3 reports the resulting behaviour of subcontract workers who are typically employed under precarious conditions, as described in Section 2. Subcontract workers represent half of the union members in our sample (the other half being employed directly by the mining company), but 75% of non-union members. Naturally, as we have individual fixed effects, we cannot capture the effect of the subcontracted trait in the dictator alone, but we can interact it with the recipient's relative status. We see that the union club is supported mostly by non-subcontracted dictators, while the net effect when subcontracted is smaller and close to zero.[15] Overall, the fact that the precariousness of the subcontract workers' condition trumps union affiliation could signal the failure of trade unions to create sufficient union solidarity among this category of workers, as discussed in section 2. Similarly, top-down favouritism occurs only if the union member has direct employment from the mining company. The bottom-up

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[15]The interaction coefficient is 3.42-3.09=0.33, and its standard errors are calculated with a simple Wald test of joint significance of the union and the subcontracted interaction.

discrimination from non-union members towards union members comes predictably from the least privileged workers, the subcontracted ones. A new result that arises when we distinguish subcontracted workers is that non-union members with subcontracted employment (the large majority) display in-group discrimination towards miners working in the same conditions.[16]

Losses

When workers were asked to share a loss, some of the effects identified above were exacerbated. In general, as already shown by the summary statistics (Table 5), players substantially modified their decisions with negative lotteries, even when they had no information about the opposite player (Table L1 in the Appendix). On average, more generous offers are made when players face a loss, however this effect diminishes as the absolute value of the loss increases (see Fig. 4 in the Appendix). We have fewer observations so often the results are less significant, but we can observe stronger union favouritism, again particularly towards ethnic matches or more dominant ethnic groups, and mostly coming from non-subcontracted union members. Under the losses, the discriminatory behaviour against fellow non-union members also persists and with a much larger coefficient. The non-union members also demonstrate less generosity under negative lotteries towards union members, even when there is an ethnic match, and especially if they have an unfavourable subcontracted status. Note that when looking exclusively at losses we cannot restrict the sample to consistent players only, so we do not have this further robustness check because the sample becomes too small.

5.3. Further robustness

As previously indicated, we can keep a sub-sample of only consistent players to reduce the risk of learning effects. The results for consistent players only are presented in Tables C1 - C16. These results confirm the elite club effect for the union, especially if the opposite player has a dominant ethnic status and the dictator is not subcontracted. Similarly, union members only favour non-unionised workers (primarily those that are not subcontracted) if they have a dominant ethnic status, but discriminate against them if they belong to a smaller ethnic minority. Workers outside of the trade union still discriminate against their peers if they are subcontracted; and they discriminate against union members who belong to smaller ethnic groups.

We can also consider the interaction of the wage of the dictator with the respondents' characteristics, as an alternative to subcontracted status. As we can see in Table A17 in the Appendix, a higher wage for the dictator may attenuate the discrimination against members of smaller ethnic groups (Column 2). This effect is the opposite of subcontracted status: we interpret these results as evidence that those with better working conditions can afford to be more generous. Note however that a higher wage does not induce significantly

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[16]Again, the coefficient is calculated as 2.84-3.47= - 0.63, with significance derived from a Wald test of joint significance.

more generosity within the union, while job security (being hired directly by the firm and not subcontracted) does.

Lastly, we consider the signalling behaviour in the last twenty dictator games, when players had the option to reveal their individual characteristics, after they had indicated how to split the lottery gains or losses. As Table A18 displays, the choice to reveal labour or ethnic status depended on whether the opposite player's characteristics matched those of the dictator. In general, people chose to signal ethnic status about 70% of the time, while they revealed union status about 50% of the time. This however increased to 70% of the lotteries if the player was a union member. We find that union and ethnicity again seem to play the role of a club, and when the two players are both part of a trade union or an ethno-linguistic group, the dictator signals his status more often. However players did not display much variation in their signalling choices in response to the opposite players' characteristics: the majority of players chose either to always reveal their own characteristics, or to decline to do it in all cases. There could be an issue of fatigue at the end of the game, or not understanding clearly what the consequences of this choice would be, but overall we cannot deduct too much from this last part of the game.

6. Discussion

The anonymous dictator games provide a controlled setting to observe the intrinsic altruism of an individual worker, because considerations of direct reciprocity, retaliation and reputation should be absent. Yet we observe that, even without any immediate returns from treating other participants differently, dictators often chose to adjust their level of generosity depending on the characteristics of their opponent. Whenever we observe a departure from the selfish behaviour, we can then infer that the player had some other motive that justifies his deliberate choice (Fehr and Schmidt, 2006). Some degree of generosity is a well known result in the experimental literature on dictator games and can be explained as a basic understanding of fairness (Kahneman et al., 1986; Engel, 2011), but since we map it into selective favouritism and discrimination, it is important to discuss some possible explanations for this behaviour. In particular, the psychology literature at the intersection of experimental behavioural economics can inform the discussion about our findings (Everett et al., 2015).

One possibility is that, even though we repeatedly informed the players about the anonymity and confidentiality of the games, there was still some doubt about the repercussions of their choices: workers might have feared that the results would somehow become public, and thus those who had more to lose and who cared the most about the benefits derived from their status acted as they were expected in that context. This would be a variation of the psychology theories about in-group altruism stemming from fear or reputation concerns (Yamagishi and Mifune, 2008). However, these effects are more common in games with repeated interactions (Ahn et al., 2001). In our case, union members showed greater generosity towards other union members,

but ignored the principle of union camaraderie if the other worker was from an ethnic minority. This effect could depend on considerations about personal reputation within the union, or also in terms of expectations about future personal status and potential gains related to it. Overall, this interpretation of our results would mean that workers expected some indirect side benefits from treating the strongest opponents favourably (as in evolutionary theories of indirect reciprocity, see Nowak and Sigmund, 2005). That would justify the instances of *H-endophilia* between union members, but also the upward generosity towards stronger ethnic groups, in the form of *H-exophilia*.

A second explanation could be that workers have some intrinsic preferences or tastes that translate into higher utility whenever they behave generously towards certain categories or when they punish other groups. This effect could be seen in terms of reinforcing personal image and a sense of belonging, with a form of self-signalling often defined in the psychology literature as a way to achieve self categorization (Turner and Reynolds, 2011). Players may also feel a warm glow in being generous towards certain types (Fehr and Schmidt, 2006) and particularly towards powerful groups, somehow indicating that they are close to that privileged category, while penalizing their own subordinate group (Dasgupta, 2004). Symmetrically, some workers may exhibit spite towards the most privileged categories, because of the unfairness of the different conditions (for instance in the case of bottom-up discrimination or *H-exophobia* from non-union to union workers), in a hierarchical form of out-group antipathy (Cikara et al., 2014). This second set of explanations relies less on beliefs about uncertain economic benefits outside of the games, and more on the intrinsic preferences of the workers.

Thirdly, we can read these results as the fruit of social norms that workers have learnt in their everyday environment. The assumption would be that workers played according to their understanding of 'how the world works'. This would be in line with social identity theories in the psychology literature (Turner and Reynolds, 2011) and with the economic interpretation of social preferences (even though, again, these are usually based on reciprocity) (Charness and Rabin, 2002). In the mining industry context, workers understand that weaker individuals can be discriminated against without major consequences, and thus they apply the same behaviour in the lab. This way, they can extract some surplus from the less threatening players by sharing less of the proceedings from the lotteries with them.

One issue to consider carefully with these results is salience: in the anonymous games, whenever the characteristics of the opposite players were displayed, the dictators were actively encouraged (by design of the experiment itself) to think about how this information could be used. We feel that in the coal mining context of South Africa these issues are already highly salient, as explained in section 2., so we are not forcing upon workers unusual considerations about some alien form of identity. However, there can still be a concern that workers may try to second guess why such information should be provided to them, and what was expected of them in response to it. Therefore, we have to be careful about interpreting our results more broadly: we cannot really infer that these group hierarchies are the primary concerns that a worker would

have when deciding how to share scarce resources in the normal social context. We can say definitely that relative to gender, union membership and ethnicity significantly drive the choices of players and are indeed used as guidelines to understand who they can penalize the most. These results should inform us about the extent to which discrimination and favouritism is generated by the knowledge of one's relative group status, rather than whether a person would choose to acquire such knowledge and discriminate on its basis.

As a final point of discussion, we should be cautious in applying the insights from this research outside of the lab, as for all such experiments. The behaviours observed in our games provide some fresh insight into the mechanisms that can drive various forms of discrimination and favouritism, and we are particularly interested in showing the direction of these effects along different hierarchical dimensions rather than translating their magnitudes in a real world setting. Since we conducted the experiment in a field context where in-group favouritism and discrimination are well established socio-economic realities, we are confident that our results provide a general lesson about labour market relations across peers, but mostly in a qualitative sense. Most importantly, our results can inform a future stream of research that focuses not only on in- or out-group biases, but also on the relative outcomes for those who are in subordinate or dominant groups, especially when resource constraints become tighter.

7. Conclusion

This article analyses workers' sharing behaviour when presented with random economic shocks. Our results suggest that when workers regularly experience the segmentation of a dual labour market, they are likely to use group hierarchies as a guide for their behaviour, to the point of enforcing some of these hierarchic structures on themselves. The interplay of labour and ethnic status informs workers about who is in a 'weaker' position and can thus be more easily discriminated against. Obviously we are not claiming that the discrimination originates among the workers, since most of it results from the segmented social structure stemming from a long history of segregation and from the bargaining between the coal mining industry and unions. However, players seem to have assimilated this notion of differential status for members of the union, which acts as an exclusive club (similarly to the most numerous ethnic group). In the study of discrimination in the labour market, it is fundamental to research the institutional causes that allow for the implementation of biases and prejudices, but we argue that it is also crucial to consider the other side of the coin, namely how the recipients of discrimination and favouritism adjust their behaviour towards each other.

Perhaps the most surprising and novel result of our study is that workers at the bottom of the 'food chain' choose to discriminate against their peers, in a war among poor spurred by scarcity and competition - in our experiment, this effect is present particularly under negative lotteries and for subcontracted workers. As workers cannot extract any surplus from those with more powerful status, such as union members, they turn against other workers with less privileged conditions, like themselves. In general, this result calls for

further research that seeks for further evidence in other contexts: anecdotally, for example, in many countries immigrants compete with local unskilled workers and increasing migratory pressure during economic crises can spur racism and xenophobic attitudes. This war among the poor could be a threat to social cohesion and integration in the workplace, especially when jobs are scarce and increasingly temporary and insecure.

8. Bibliography

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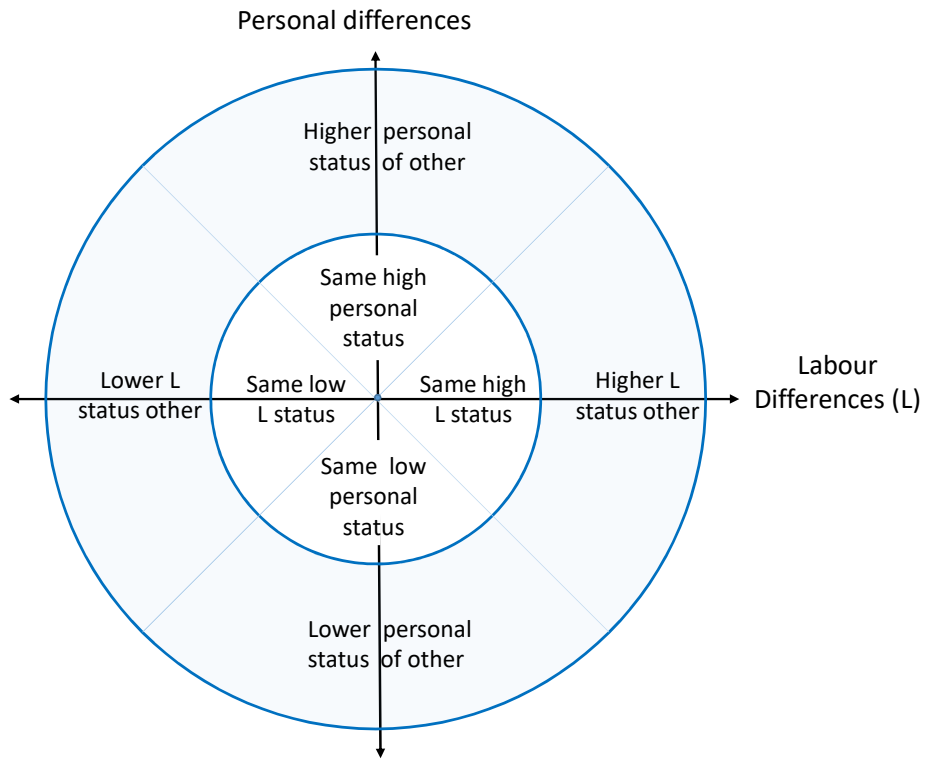
Figure 1: Mapping of differences in relative status from another worker.
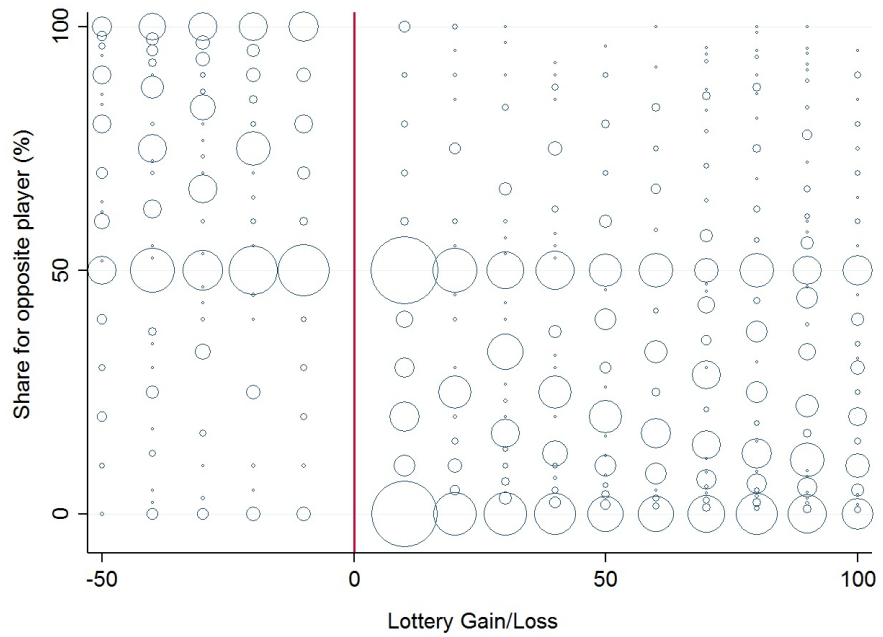
Figure 2: Distribution of offers in the anonymous games

Table 4: Ethnicities in the Local Municipality of Witbank/Emalahleni

Percentage	First language				
	I. Census	II. Adjusted	III. In sample	IV. Language group	
46%	isiZulu	isiZulu	isiZulu		Zulu
15% (2%)	Afrikaans	Sepedi	Sepedi	Nguni	Ndebele
13%	Sepedi	isiNdebele	Xitsonga		Swati
11%	isiNdebele	SiSwati	SiSwati		Xhosa
7%	SiSwati	Xitsonga	isiNdebele		Pedi
7% (1%)	English	Sesotho	Sesotho	Sotho/ Tswana	Sotho
4%	Xitsonga	isiXhosa	isiXhosa		Tswana
4%	Sesotho	Afrikaans (coloured)	Afrikaans	European	English
4%	isiXhosa	Setswana	Setswana		Afrikaans
1%	Setswana	English (asian)	English	Xitsonga	Tsonga
1%	Tshivenda	Tshivenda	Tshivenda	Venda	Venda

Source: own elaboration from Census 2011.

Because our survey asked for home language rather than ethnicity, we have to adjust two categories (Afrikaans and English). Afrikaans is spoken by 15% of the population (almost exclusively by the Afrikaaners and Coloureds communities) according to the census. While our sample includes members of the Coloured community, it does not include Afrikaaners (who are rarely employed as mineworkers). For this reason, we adjust the ranking of Afrikaans to reflect the actual weight of the Coloured community in Emalahleni (namely, 2% of the total population). We proceed in the same manner to adjust the weight of English to reflect the weight of the Asian population in the municipality (1%). As a baseline, we then use the II. Adjusted ranking, and our 'ethnic minority' variable takes the values of 1 for Zulu, 2 - Sepedi, 3 - Ndebele, 4 - Swati, 5 - Tsonga, 6 - Sesotho, 7 - Xhosa, 8 - Afrikaans, 9 - English and 10 - Venda.

	Face to face		Anonymous		
Game	Dictator	Ultimatum	Dictator		
Information	No info	No Info	No Info	Info	Info + Signal
Rounds	2 trials + 3	2 trials + 3	10	20	20
Share kept	52.7%	51.9%	62.9%	64.7%	63.6%
- Positive lottery	39.7%	55.9%	74.9%	75.3%	76.1%
- Negative lottery	62.2%	48.6%	34.9%	34.8%	34.2%
Generosity	38.6%	46.5%	28.1%	27.8%	27%
- Positive lottery	39.7%	48.6%	25.2%	25.3%	23.9%
- Negative lottery	37.7%	44%	34.9%	35.2%	34.4%
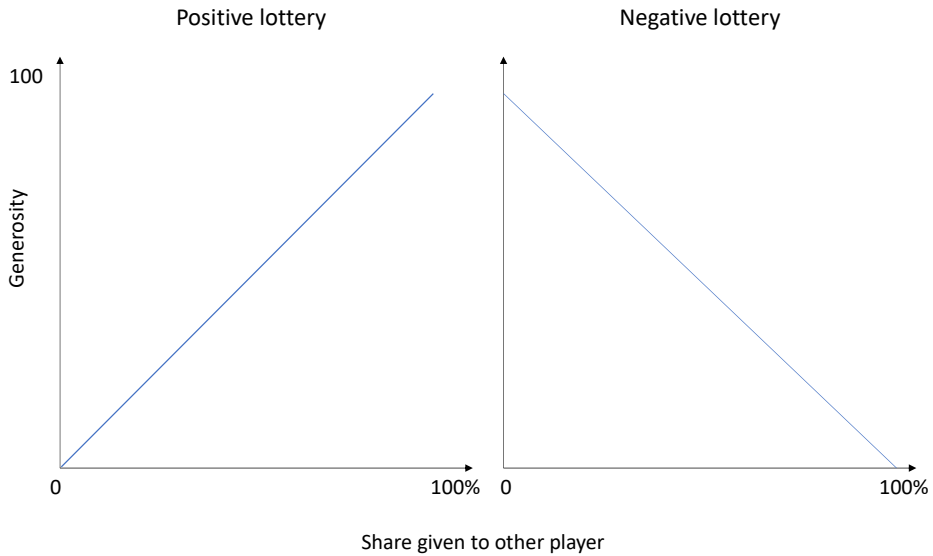
Figure 3: Definition of the dependent variable: *Generosity* as a function of the percentage share kept by the dictator, over gains and losses.

Table A1: Baseline

	(1) Generosity	(2) Generosity	(3) Generosity
Negative lottery	11.03***	11.03***	11.03***
	(0.72)	(0.72)	(0.72)
Lottery (abs. value)	-0.05***	-0.05***	-0.05***
	(0.01)	(0.01)	(0.01)
Lottery (abs. value) x Loss	-0.08***	-0.08***	-0.08***
	(0.02)	(0.02)	(0.02)
Round	-0.03***	-0.05***	-0.02
	(0.01)	(0.01)	(0.03)
Information		1.07**	0.71
		(0.49)	(0.55)
Signalling option			-0.84
			(0.62)
Constant	28.09***	27.74***	27.56***
	(0.40)	(0.44)	(0.46)
Observations	13966	13966	13966
R^2	0.076	0.076	0.077
FE	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in brackets.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$.
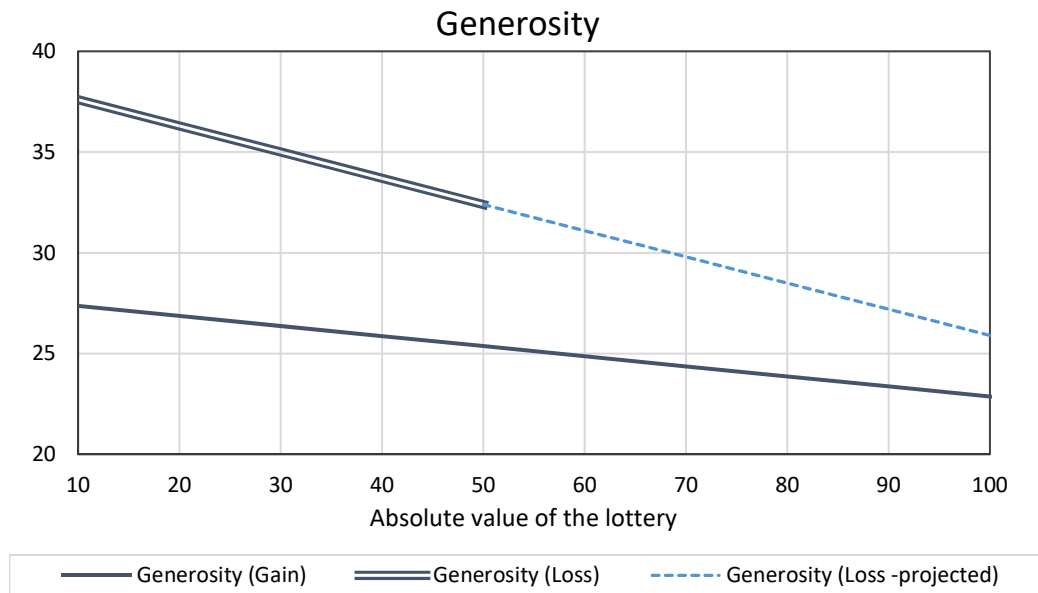
Figure 4: Generosity as predicted by the baseline model (Table A1.

Table A2: Relative status of recipient

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity
Union member j	0.49 (0.32)			
Ethnic minority j	-0.24 (0.17)			
Same ethnic group		1.29*** (0.46)	1.30*** (0.46)	
Same labour status		0.48 (0.32)		
Both union members			1.07** (0.47)	1.07** (0.47)
Both non-union members			-0.05 (0.45)	-0.05 (0.45)
Same ethnic majority				1.06* (0.62)
Same ethnic minority				1.38 (0.98)
Constant	28.60*** (0.64)	25.74*** (1.58)	25.74*** (1.58)	25.75*** (1.58)
Observations	11135	10398	10398	10398
R^2	0.082	0.087	0.087	0.087
FE	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES

Standard errors in brackets.$^*p < 0.10$,$^{**}p < 0.05$,$^{***}p < 0.01$. Gender and baseline controls omitted.

Table A3: Relative hierarchy in opponent's status

	(1) Generosity	(2) Generosity	(3) Generosity
Lower union j	-1.07** (0.47)	-1.06** (0.47)	-1.07** (0.47)
Higher union j	0.05 (0.45)	0.02 (0.45)	0.05 (0.45)
Lower ethnic j	-1.52** (0.60)		-1.64*** (0.61)
Higher ethnic j		-0.42 (0.60)	-0.69 (0.60)
Constant	28.06*** (1.68)	26.48*** (1.57)	28.14*** (1.69)
Observations	10398	10398	10398
R^2	0.087	0.086	0.087
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	YES	YES	YES

Standard errors in parentheses.$^*p < 0.10$,$^{**}p < 0.05$,$^{***}p < 0.01$. Gender and baseline controls not reported.

Table A4: Union status versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Union j vs. no info	0.57 (0.44)					
Non-union j vs. no info		0.39 (0.46)				
Match union vs. no info			1.90*** (0.67)			
Lower union j vs. no info				1.31* (0.71)		
Match non-union vs. no info					-0.35 (0.60)	
Higher union j vs. no info						-0.49 (0.58)
Constant	27.31*** (0.49)	27.52*** (0.51)	27.95*** (0.72)	27.92*** (0.76)	27.12*** (0.66)	26.80*** (0.65)
Observations	8413	8320	4060	3964	4299	4292
R^2	0.079	0.075	0.069	0.067	0.093	0.098
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Baseline controls not reported.

Table A5: Ethnicity compared to no information

	(1) Generosity	(2) Generosity	(3) Generosity
Ethnic match vs. no info	1.12* (0.65)		
Lower ethnic j vs. no info		-1.62** (0.75)	
Higher ethnic j vs. no info			1.93*** (0.53)
Constant	27.94*** (0.61)	28.30*** (0.62)	27.32*** (0.53)
Observations	4623	5267	6939
R^2	0.078	0.078	0.086
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Baseline controls not reported.

Table A6: Interactions - union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Match union, match ethnic	2.50** (1.15)					
Match union, lower ethnic j		-0.21 (1.08)				
Match union, higher ethnic j			4.37*** (0.93)			
Lower union j, match ethnic				1.99* (1.19)		
Lower union j, lower ethnic j					-2.07* (1.16)	
Lower union j, higher ethnic j						3.70*** (0.96)
Constant	27.87*** (0.69)	28.49*** (0.67)	27.30*** (0.65)	27.90*** (0.70)	28.14*** (0.70)	27.30*** (0.66)
Observations	3270	3525	3777	3222	3526	3681
R^2	0.086	0.081	0.097	0.085	0.082	0.091
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10,$ $^{**}p < 0.05,$ $^{***}p < 0.01.$ Baseline controls not reported.

Table A7: Interactions - non union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Higher union j, match ethnic	-0.84 (1.14)					
Higher union j, lower ethnic j		-3.27** (1.30)				
Higher union j, higher ethnic j			1.24 (0.82)			
Match non-union, match ethnic				0.77 (1.18)		
Match non-union, lower ethnic j					-1.79 (1.33)	
Match non-union, higher ethnic j						-0.08 (0.85)
Constant	27.57*** (0.67)	27.75*** (0.67)	27.53*** (0.64)	27.94*** (0.68)	27.46*** (0.68)	27.74*** (0.63)
Observations	3209	3245	3939	3223	3272	3843
R^2	0.089	0.092	0.080	0.082	0.090	0.089
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10,$ $^{**}p < 0.05,$ $^{***}p < 0.01.$ Baseline controls not reported.

Table A8: Subcontracted union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity
Union j vs. no info	2.84*** (0.68)		
Union j vs. no info x subcontracted i	-3.47*** (0.81)		
Match union vs. no info		3.42*** (0.90)	
Match union vs. no info x subcontracted i		-3.09*** (1.18)	
Lower union j vs. no info			2.03** (0.95)
Lower union j vs. no info x subcontracted i			-1.39 (1.23)
Constant	27.44*** (0.50)	28.48*** (0.73)	28.56*** (0.77)
Observations	8016	3936	3848
R^2	0.081	0.066	0.063
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Baseline controls not reported.
Note: subcontracted always refer to the player making the offer.

Table A9: Subcontracted non union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity
Non-union j vs. no info	2.59*** (0.71)		
Non union j vs. no info x subcontracted i	-3.35*** (0.84)		
Match non-union vs. no info		3.53*** (1.11)	
Match non-union vs. no info x subcontracted i		-5.06*** (1.23)	
Higher union j vs. no info			1.55 (1.08)
Higher union j vs. no info x subcontracted i			-2.63** (1.20)
Constant	27.79*** (0.51)	27.00*** (0.68)	26.44*** (0.67)
Observations	7926	4078	4080
R^2	0.079	0.102	0.102
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Baseline controls not reported.
Note: subcontracted always refer to the player making the offer.

Losses

Table L1: Baseline

	(1) Generosity	(2) Generosity	(3) Generosity
Lottery (abs. value)	-0.14***	-0.14***	-0.14***
	(0.02)	(0.02)	(0.02)
Round	-0.03*	-0.02	0.00
	(0.02)	(0.02)	(0.05)
Information		-0.57	-0.79
		(0.91)	(1.02)
Signalling option			-0.52
			(1.14)
Constant	39.59***	39.78***	39.66***
	(0.78)	(0.84)	(0.88)
Observations	3905	3905	3905
R^2	0.014	0.014	0.014
FE	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in brackets.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$.

Table L4: Union status versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Union j vs. no info	-0.03 (0.86)					
Non-union j vs. no info		-1.91** (0.86)				
Match union vs. no info			2.62** (1.31)			
Lower union j vs. no info				0.18 (1.28)		
Match non-union vs. no info					-3.39*** (1.17)	
Higher union j vs. no info						-2.03* (1.13)
Constant	40.34*** (1.00)	39.18*** (0.98)	39.07*** (1.47)	38.14*** (1.44)	39.90*** (1.35)	41.49*** (1.35)
Observations	2348	2347	1090	1094	1234	1239
R^2	0.020	0.012	0.021	0.008	0.019	0.028
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses.*$p < 0.10$,**$p < 0.05$,***$p < 0.01$. Baseline controls not reported.

Table L5: Ethnicity compared to no information

	(1) Generosity	(2) Generosity	(3) Generosity
Ethnic match vs. no info	0.85 (1.25)		
Lower ethnic j vs. no info		-1.14 (1.49)	
Higher ethnic j vs. no info			0.29 (1.00)
Constant	38.49*** (1.25)	40.33*** (1.29)	40.12*** (1.08)
Observations	1306	1467	1936
R^2	0.011	0.018	0.018
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in brackets.*$p < 0.10$,**$p < 0.05$,***$p < 0.01$. Baseline controls not reported.

Table L6: Interactions - union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Match union, match ethnic	5.16** (2.23)					
Match union, lower ethnic j		2.74 (2.24)				
Match union, higher ethnic j			4.33** (1.91)			
Lower union j, match ethnic				2.08 (2.35)		
Lower union j, lower ethnic j					-3.54 (2.31)	
Lower union j, higher ethnic j						2.36 (1.79)
Constant	40.39*** (1.49)	41.54*** (1.47)	39.99*** (1.39)	40.66*** (1.48)	40.78*** (1.43)	41.40*** (1.39)
Observations	938	996	1048	911	1002	1064
R^2	0.034	0.037	0.031	0.024	0.026	0.037
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Baseline controls not reported.

Table L7: Interactions - non union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Higher union j, match ethnic	-4.61** (2.32)					
Higher union j, lower ethnic j		-2.31 (2.50)				
Higher union j, higher ethnic j			-0.30 (1.67)			
Match non-union, match ethnic				-1.90 (2.32)		
Match non-union, lower ethnic j					-3.17 (2.75)	
Match non-union, higher ethnic j						-3.01* (1.61)
Constant	41.19*** (1.44)	41.13*** (1.48)	40.04*** (1.41)	39.18*** (1.44)	40.22*** (1.51)	41.17*** (1.35)
Observations	914	925	1102	913	914	1092
R^2	0.039	0.030	0.020	0.016	0.023	0.029
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Baseline controls not reported.

Table L8: Subcontracted union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity
Union j vs. no info	2.97** (1.33)		
Union j vs. no info x subcontracted i	-4.53*** (1.57)		
Match union vs. no info		3.34* (1.76)	
Match union vs. no info x subcontracted i		-1.75 (2.29)	
Lower union j vs. no info			1.21 (1.72)
Lower union j vs. no info x subcontracted i			-2.14 (2.21)
Constant	40.44*** (1.01)	39.43*** (1.49)	38.07*** (1.47)
Observations	2228	1053	1059
R^2	0.026	0.022	0.008
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$. Baseline controls not reported.
Note: subcontracted always refer to the player making the offer.

Table L9: Subcontracted non union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity
Non-union j vs. no info	0.50 (1.35)		
Non union j vs. no info x subcontracted i	-3.25** (1.55)		
Match non-union vs. no info		-0.59 (2.20)	
Match non-union vs. no info x subcontracted i		-3.31 (2.38)	
Higher union j vs. no info			2.69 (2.10)
Higher union j vs. no info x subcontracted i			-6.16*** (2.32)
Constant	38.94*** (1.01)	39.74*** (1.39)	41.38*** (1.38)
Observations	2231	1172	1175
R^2	0.013	0.020	0.037
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$. Baseline controls not reported.
Note: subcontracted always refer to the player making the offer.

Table A10: Ethnic group of the opposite player

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity
Zulu	2.18 (1.52)	2.14 (1.54)	0.92 (1.65)	2.82* (1.59)
Sepedi	1.35 (1.56)	1.31 (1.57)	0.46 (1.62)	1.73 (1.60)
Ndebele	1.66 (1.60)	1.82 (1.60)	1.00 (1.64)	2.13 (1.63)
Swati	1.45 (1.57)	1.55 (1.58)	1.01 (1.60)	1.83 (1.59)
Tsonga	1.71 (1.54)	1.85 (1.55)	1.49 (1.56)	2.11 (1.55)
Sotho	1.11 (1.66)	1.37 (1.67)	1.22 (1.67)	1.47 (1.67)
Xhosa	1.47 (1.68)	1.63 (1.69)	1.55 (1.69)	1.73 (1.69)
Afrikaans	0.11 (1.78)	0.58 (1.79)	0.41 (1.79)	0.56 (1.79)
English	-4.82 (3.28)	-4.56 (3.28)	-4.37 (3.28)	-4.49 (3.28)
Same labour status		0.48 (0.32)		
Same ethnic group		1.29*** (0.46)		
Lower union j			-1.07** (0.47)	
Lower ethnic j			-1.52** (0.60)	
Higher union j				0.00 (0.45)
Higher ethnic j				-0.42 (0.60)
Constant	26.27*** (1.56)	25.70*** (1.58)	27.83*** (1.69)	25.94*** (1.58)
Observations	10637	10398	10398	10398
R^2	0.084	0.087	0.087	0.086
FE	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	
Ethnic_dummy				

Standard errors in brackets.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender controls not reported.

Table A11: Ethnic match between dictator and recipient

	(1) Generosity	(2) Generosity	(3) Generosity
Both Zulu	1.48**	0.44	1.44**
	(0.64)	(0.82)	(0.64)
Both Sepedi	0.95	0.32	1.32
	(1.22)	(1.27)	(1.23)
Both Swati	2.57*	2.20	3.16**
	(1.42)	(1.44)	(1.45)
Both Tsonga	1.21	1.05	2.12**
	(0.98)	(0.99)	(1.07)
Both Ndebele	2.49	1.90	3.00
	(2.10)	(2.12)	(2.12)
Both Sotho	3.39	3.56	3.30
	(3.28)	(3.28)	(3.28)
Lower union j		-1.15**	
		(0.47)	
Lower ethnic j		-0.99*	
		(0.51)	
Higher union j			0.12
			(0.45)
Higher ethnic j			1.04**
			(0.51)
Constant	27.59***	28.43***	27.06***
	(0.51)	(0.60)	(0.57)
Observations	10460	10398	10398
R^2	0.086	0.087	0.086
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in brackets.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender controls not reported.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Generosity	Generosity	Generosity	Generosity	Generosity	Generosity	Generosity	Generosity	Generosity
Zulu vs. no info	1.22**								
	(0.52)								
Sepedi vs. no info		1.27*							
		(0.69)							
Ndebele vs. no info			0.45						
			(0.88)						
Swati vs. no info				0.74					
				(0.71)					
Tsonga vs. no info					0.39				
					(0.58)				
Sotho vs. no info						-1.42			
						(1.11)			
Xhosa vs. no info							-0.44		
							(1.10)		
Afrikaans vs. no info								-4.51***	
								(1.32)	
Venda vs. no info									-0.86
									(2.39)
Constant	27.55***	27.63***	27.39***	26.72***	27.83***	27.79***	27.35***	28.01***	27.44***
	(0.55)	(0.62)	(0.67)	(0.63)	(0.58)	(0.70)	(0.68)	(0.70)	(0.70)
Observations	5961	4278	3613	4196	5390	3312	3239	3118	2896
R^2	0.083	0.081	0.092	0.077	0.071	0.084	0.077	0.084	0.090
FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table A12: Ethnicity compared to no information

Standard errors in brackets. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Gender controls not reported.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Generosity	Generosity	Generosity	Generosity	Generosity	Generosity	Generosity
Zulu match vs. no info	-0.26						
	(0.93)						
Pedi match vs. no info		1.36					
		(1.70)					
Ndebele match vs. no info			2.08				
			(3.00)				
Swati match vs. no info				1.15			
				(1.92)			
Tsonga match vs. no info					2.25*		
					(1.35)		
Sotho match vs. no info						9.53**	
						(4.41)	
Xhosa match vs. no info							5.98
							(4.36)
Constant	28.12***	27.57***	27.52***	28.32***	27.78***	27.79***	27.53***
	(0.67)	(0.69)	(0.71)	(0.70)	(0.68)	(0.72)	(0.71)
Observations	3711	2993	2838	2933	3159	2795	2796
R^2	0.078	0.100	0.098	0.089	0.075	0.092	0.092
FE	YES	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO	NO

Table A13: Ethnicity match compared to no information

Standard errors in brackets. $^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Baseline controls not reported.

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Both union members	1.29*** (0.49)	1.25** (0.57)	0.56 (0.55)			
Same ethnic group	1.56*** (0.51)			0.91* (0.51)		
Match union x match ethnic	-1.18 (0.97)					
Lower ethnic j		-1.29** (0.61)			-1.37** (0.61)	
Match union x lower ethnic j		-0.41 (0.78)				
Higher ethnic j			-0.75 (0.60)			-0.34 (0.60)
Match union x higher ethnic j			1.34 (0.82)			
Lower union j				-1.33*** (0.49)	-1.03* (0.59)	-0.85 (0.55)
Lower union j x match ethnic				1.42 (0.99)		
Lower union j x lower ethnic j					-0.07 (0.79)	
Lower union j x higher ethnic j						-0.59 (0.85)
Constant	25.86*** (1.54)	27.30*** (1.66)	26.00*** (1.54)	26.49*** (1.55)	27.88*** (1.66)	26.36*** (1.55)
Observations	10816	10816	10816	10816	10816	10816
R^2	0.085	0.085	0.085	0.085	0.085	0.085
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES	YES	YES

Table A14: Relative status interactions - union members

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls omitted.

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Both non-union members	-0.11 (0.47)	-0.33 (0.56)	0.53 (0.55)			
Same ethnic group	1.11** (0.51)			1.42*** (0.51)		
Match non union x match ethnic	0.51 (0.99)					
Lower ethnic j		-1.57** (0.62)			-1.16* (0.60)	
Match non union x lower ethnic j		0.70 (0.78)				
Higher ethnic j			-0.08 (0.62)			-0.20 (0.60)
Match non union x higher ethnic j			-1.34* (0.81)			
Higher union j				0.14 (0.47)	0.04 (0.44)	0.00 (0.44)
Higher union j x match ethnic				-0.71 (1.00)		
Higher union j x lower ethnic j					-0.94 (0.62)	
Higher union j x higher ethnic j						-1.31* (0.71)
Constant	26.11*** (1.54)	27.61*** (1.66)	25.92*** (1.55)	26.04*** (1.54)	27.59*** (1.65)	26.10*** (1.54)
Observations	10816	10816	10816	10816	10816	10816
R^2	0.085	0.085	0.084	0.085	0.085	0.084
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES	YES	YES

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Loss not reported.

Table A16: Subcontracted

	(1) Generosity	(2) Generosity	(3) Generosity
Both union members	2.02*** (0.68)	2.05*** (0.68)	2.02*** (0.68)
Both union members x subcontracted i	-1.81* (0.95)	-1.86* (0.95)	-1.83* (0.95)
Both non-union members	1.41 (0.91)	1.40 (0.91)	1.43 (0.91)
Both non-union members x subcontracted i	-2.00* (1.05)	-1.95* (1.05)	-1.98* (1.05)
Constant	25.87*** (1.60)	27.30*** (1.72)	25.86*** (1.60)
Observations	10003	10003	10003
R^2	0.087	0.087	0.086
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	YES	YES	YES
Ethnic	Match	Higher	Lower

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls omitted.
Insignificant ethnic hierarchy/match, interacted with subcontracted not reported.
Note: subcontracted always refer to the player making the offer.

Table A17: Wage

	(1) Generosity	(2) Generosity	(3) Generosity
Both union members	1.05	1.02	1.05
	(0.74)	(0.74)	(0.74)
Both union members x wage i	0.01	0.02	0.00
	(0.30)	(0.30)	(0.30)
Both non-union members	-0.64	-0.59	-0.58
	(0.64)	(0.64)	(0.64)
Both non-union members x wage i	0.40	0.37	0.39
	(0.36)	(0.36)	(0.36)
Same ethnic group	1.83***		
	(0.67)		
Same ethnicity x wage i	-0.39		
	(0.31)		
Lower ethnic j		-2.21***	
		(0.72)	
Lower ethnic j x wage i		0.58**	
		(0.28)	
Higher ethnic j			0.23
			(0.74)
Higher ethnic j x wage i			-0.50
			(0.33)
Constant	25.90***	27.26***	25.88***
	(1.55)	(1.66)	(1.55)
Observations	10776	10776	10776
R^2	0.086	0.087	0.086
FE	YES	YES	YES

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender match not reported.
Controls: loss, signal, and (insignificant) ethnichierarchy/match, interacted with subcontracted.
Note: subcontracted always refer to the player making the offer.

Table A18: Signalling choice

	(1) Signal Labour	(2) Signal Ethnicity
Generosity	0.00***	0.00***
	(0.00)	(0.00)
Both union members	0.09***	0.07***
	(0.01)	(0.01)
Both non-union members	-0.02	-0.01
	(0.01)	(0.01)
Same ethnic group	0.02	0.07***
	(0.02)	(0.02)
Lower ethnic j	-0.02	-0.02
	(0.02)	(0.02)
Constant	0.51***	0.61***
	(0.04)	(0.04)
Observations	5037	5186
R^2	0.025	0.034
FE	YES	YES
Baseline_controls	YES	YES
Ethnic_dummy	YES	YES

Standard errors in parentheses. $^{*}p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls omitted

Losses

Table L2: Relative status of recipient

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity
Union member j	0.32 (0.57)			
Ethnic minority j	-0.04 (0.28)			
Same ethnic group		0.45 (0.81)	0.45 (0.81)	
Same labour status		0.51 (0.58)		
Both union members			0.65 (0.85)	0.66 (0.85)
Both non-union members			0.37 (0.80)	0.38 (0.80)
Same ethnic majority				0.08 (1.09)
Same ethnic minority				0.03 (1.69)
Constant	38.85*** (1.16)	38.27*** (2.73)	38.61*** (2.72)	38.62*** (2.72)
Observations	3097	2876	2876	2876
R^2	0.018	0.019	0.019	0.019
FE	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES

Standard errors in brackets. $^{*}p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls omitted.

Table L3: Relative hierarchy in opponent's status

	(1) Generosity	(2) Generosity	(3) Generosity
Lower union j	-0.66 (0.85)	-0.66 (0.85)	-0.66 (0.85)
Higher union j	-0.37 (0.80)	-0.38 (0.80)	-0.37 (0.80)
Lower ethnic j	-0.61 (1.06)		-0.61 (1.07)
Higher ethnic j		0.06 (1.06)	-0.04 (1.07)
Constant	38.21*** (2.90)	37.61*** (2.71)	38.21*** (2.90)
Observations	2876	2876	2876
R^2	0.019	0.019	0.019
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	YES	YES	YES

Standard errors in parentheses. $^{*}p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls not reported.

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity
	Table L4: Ethnicities			

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity
Zulu	2.18	2.14	0.92	2.82*
	(1.52)	(1.54)	(1.65)	(1.59)
Sepedi	1.35	1.31	0.46	1.73
	(1.56)	(1.57)	(1.62)	(1.60)
Ndebele	1.66	1.82	1.00	2.13
	(1.60)	(1.60)	(1.64)	(1.63)
Swati	1.45	1.55	1.01	1.83
	(1.57)	(1.58)	(1.60)	(1.59)
Tsonga	1.71	1.85	1.49	2.11
	(1.54)	(1.55)	(1.56)	(1.55)
Sotho	1.11	1.37	1.22	1.47
	(1.66)	(1.67)	(1.67)	(1.67)
Xhosa	1.47	1.63	1.55	1.73
	(1.68)	(1.69)	(1.69)	(1.69)
Afrikaans	0.11	0.58	0.41	0.56
	(1.78)	(1.79)	(1.79)	(1.79)
English	-4.82	-4.56	-4.37	-4.49
	(3.28)	(3.28)	(3.28)	(3.28)
Same labour status		0.48		
		(0.32)		
Same ethnic group		1.29***		
		(0.46)		
Lower union j			-1.07**	
			(0.47)	
Lower ethnic j			-1.52**	
			(0.60)	
Higher union j				0.00
				(0.45)
Higher ethnic j				-0.42
				(0.60)
Constant	26.27***	25.70***	27.83***	25.94***
	(1.56)	(1.58)	(1.69)	(1.58)
Observations	10637	10398	10398	10398
R^2	0.084	0.087	0.087	0.086
FE	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	
Ethnic_dummy				

Standard errors in brackets.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender controls not reported.

	(1)	(2)	(3)
	Generosity	Generosity	Generosity
Both Zulu	1.48**	0.44	1.44**
	(0.64)	(0.82)	(0.64)
Both Sepedi	0.95	0.32	1.32
	(1.22)	(1.27)	(1.23)
Both Swati	2.57*	2.20	3.16**
	(1.42)	(1.44)	(1.45)
Both Tsonga	1.21	1.05	2.12**
	(0.98)	(0.99)	(1.07)
Both Ndebele	2.49	1.90	3.00
	(2.10)	(2.12)	(2.12)
Both Sotho	3.39	3.56	3.30
	(3.28)	(3.28)	(3.28)
Lower union j		-1.15**	
		(0.47)	
Lower ethnic j		-0.99*	
		(0.51)	
Higher union j			0.12
			(0.45)
Higher ethnic j			1.04**
			(0.51)
Constant	27.59***	28.43***	27.06***
	(0.51)	(0.60)	(0.57)
Observations	10460	10398	10398
R^2	0.086	0.087	0.086
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Table L10: Ethnicities match

Standard errors in brackets. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Gender controls not reported.

Table L11: Ethnicity compared to no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity	(7) Generosity	(8) Generosity	(9) Generosity
Zulu vs. no info	1.22** (0.52)								
Sepedi vs. no info		1.27* (0.69)							
Ndebele vs. no info			0.45 (0.88)						
Swati vs. no info				0.74 (0.71)					
Tsonga vs. no info					0.39 (0.58)				
Sotho vs. no info						-1.42 (1.11)			
Xhosa vs. no info							-0.44 (1.10)		
Afrikaans vs. no info								-4.51*** (1.32)	
Venda vs. no info									-0.86 (2.39)
Constant	27.55*** (0.55)	27.63*** (0.62)	27.39*** (0.67)	26.72*** (0.63)	27.83*** (0.58)	27.79*** (0.70)	27.35*** (0.68)	28.01*** (0.70)	27.44*** (0.70)
Observations	5961	4278	3613	4196	5390	3312	3239	3118	2896
R^2	0.083	0.081	0.092	0.077	0.071	0.084	0.077	0.084	0.090
FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO	NO	NO	NO

Standard errors in brackets.* $p < 0.10$,** $p < 0.05$,*** $p < 0.01$. Gender controls not reported.

Table L12: Ethnicity match compared to no information

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Generosity	Generosity	Generosity	Generosity	Generosity	Generosity	Generosity
Zulu match vs. no info	-0.26						
	(0.93)						
Pedi match vs. no info		1.36					
		(1.70)					
Ndebele match vs. no info			2.08				
			(3.00)				
Swati match vs. no info				1.15			
				(1.92)			
Tsonga match vs. no info					2.25*		
					(1.35)		
Sotho match vs. no info						9.53**	
						(4.41)	
Xhosa match vs. no info							5.98
							(4.36)
Constant	28.12***	27.57***	27.52***	28.32***	27.78***	27.79***	27.53***
	(0.67)	(0.69)	(0.71)	(0.70)	(0.68)	(0.72)	(0.71)
Observations	3711	2993	2838	2933	3159	2795	2796
R^2	0.078	0.100	0.098	0.089	0.075	0.092	0.092
FE	YES	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO	NO

Standard errors in brackets.$^{*}p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Baseline controls not reported.

Table L13: Relative status interactions - union members

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Both union members	0.78 (0.88)	1.08 (1.02)	0.14 (0.98)			
Same ethnic group	0.64 (0.91)			0.20 (0.89)		
Match union x match ethnic	-0.56 (1.69)					
Lower ethnic j		-0.33 (1.08)			-0.66 (1.07)	
Match union x lower ethnic j		-0.93 (1.39)				
Higher ethnic j			-0.36 (1.07)			0.13 (1.06)
Match union x higher ethnic j			1.46 (1.47)			
Lower union j				-0.88 (0.87)	-0.89 (1.04)	-0.33 (0.98)
Lower union j x match ethnic				1.22 (1.76)		
Lower union j x lower ethnic j					0.47 (1.40)	
Lower union j x higher ethnic j						-0.94 (1.48)
Constant	37.87*** (2.65)	38.27*** (2.85)	37.97*** (2.65)	38.28*** (2.67)	38.80*** (2.86)	38.12*** (2.67)
Observations	2996	2996	2996	2996	2996	2996
R^2	0.019	0.019	0.019	0.019	0.019	0.019
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES	YES	YES

Standard errors in parentheses. $^*p < 0.10,$ $^{**}p < 0.05,$ $^{***}p < 0.01$. Gender and baseline controls omitted.

Table L14: Relative status interactions - non union members

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Both non-union members	0.39 (0.84)	0.18 (1.00)	0.62 (0.97)			
Same ethnic group	0.53 (0.90)			0.60 (0.89)		
Match non union x match ethnic	-0.19 (1.75)					
Lower ethnic j		-0.67 (1.10)			-0.49 (1.05)	
Match non union x lower ethnic j		0.42 (1.39)				
Higher ethnic j			0.12 (1.11)			0.19 (1.05)
Match non union x higher ethnic j			-0.65 (1.45)			
Higher union j				-0.28 (0.83)	-0.36 (0.79)	-0.37 (0.79)
Higher union j x match ethnic				-0.47 (1.75)		
Higher union j x lower ethnic j					-0.27 (1.10)	
Higher union j x higher ethnic j						-1.21 (1.23)
Constant	37.83*** (2.66)	38.45*** (2.85)	37.78*** (2.67)	38.00*** (2.65)	38.63*** (2.85)	38.08*** (2.65)
Observations	2996	2996	2996	2996	2996	2996
R^2	0.018	0.018	0.018	0.018	0.018	0.019
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES	YES	YES

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Loss not reported.

Table L15: Subcontracted

	(1) Generosity	(2) Generosity	(3) Generosity
Both union members	1.34 (1.20)	1.37 (1.20)	1.19 (1.20)
Both union members x subcontracted i	-1.61 (1.69)	-1.64 (1.69)	-1.46 (1.69)
Both non-union members	-0.58 (1.65)	-0.43 (1.65)	-0.67 (1.65)
Both non-union members x subcontracted i	1.49 (1.90)	1.42 (1.90)	1.59 (1.90)
Constant	39.03*** (2.76)	39.23*** (2.96)	39.05*** (2.77)
Observations	2776	2776	2776
R^2	0.024	0.025	0.021
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	YES	YES	YES
Ethnic	Match	Higher	Lower

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls omitted.
Insignificant ethnic hierarchy/match, interacted with subcontracted not reported.
Note: subcontracted always refer to the player making the offer.

	(1) Generosity	(2) Generosity	(3) Generosity
Both union members	1.05 (0.74)	1.02 (0.74)	1.05 (0.74)
Both union members x wage i	0.01 (0.30)	0.02 (0.30)	0.00 (0.30)
Both non-union members	-0.64 (0.64)	-0.59 (0.64)	-0.58 (0.64)
Both non-union members x wage i	0.40 (0.36)	0.37 (0.36)	0.39 (0.36)
Same ethnic group	1.83*** (0.67)		
Same ethnicity x wage i	-0.39 (0.31)		
Lower ethnic j		-2.21*** (0.72)	
Lower ethnic j x wage i		0.58** (0.28)	
Higher ethnic j			0.23 (0.74)
Higher ethnic j x wage i			-0.50 (0.33)
Constant	25.90*** (1.55)	27.26*** (1.66)	25.88*** (1.55)
Observations	10776	10776	10776
R^2	0.086	0.087	0.086
FE	YES	YES	YES

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender match not reported.

Controls: loss, signal, and (insignificant) ethnichierarchy/match, interacted with subcontracted.

Note: subcontracted always refer to the player making the offer.

Table L17: Signalling choice

	(1) Signal Labour	(2) Signal Ethnicity
Generosity	0.00***	0.00***
	(0.00)	(0.00)
Both union members	0.08***	0.06**
	(0.02)	(0.03)
Both non-union members	0.03	0.05*
	(0.02)	(0.03)
Same ethnic group	-0.02	0.03
	(0.03)	(0.03)
Lower ethnic j	-0.03	-0.06
	(0.04)	(0.04)
Constant	0.40***	0.44***
	(0.09)	(0.09)
Observations	1511	1544
R^2	0.027	0.049
FE	YES	YES
Baseline_controls	YES	YES
Ethnic_dummy	YES	YES

Standard errors in parentheses.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls omitted

Consistent players

<table>
<tr><td colspan="4" align="center">Table C1: Baseline</td></tr>
<tr><td></td><td align="center">(1)</td><td align="center">(2)</td><td align="center">(3)</td></tr>
<tr><td></td><td align="center">Generosity</td><td align="center">Generosity</td><td align="center">Generosity</td></tr>
<tr><td>Negative lottery</td><td align="center">10.56***</td><td align="center">10.55***</td><td align="center">10.55***</td></tr>
<tr><td></td><td align="center">(0.90)</td><td align="center">(0.89)</td><td align="center">(0.89)</td></tr>
<tr><td>Lottery (abs. value)</td><td align="center">-0.04***</td><td align="center">-0.04***</td><td align="center">-0.04***</td></tr>
<tr><td></td><td align="center">(0.01)</td><td align="center">(0.01)</td><td align="center">(0.01)</td></tr>
<tr><td>Lottery (abs. value) x Loss</td><td align="center">-0.08***</td><td align="center">-0.08***</td><td align="center">-0.08***</td></tr>
<tr><td></td><td align="center">(0.03)</td><td align="center">(0.03)</td><td align="center">(0.03)</td></tr>
<tr><td>Round</td><td align="center">-0.01</td><td align="center">-0.04**</td><td align="center">-0.04</td></tr>
<tr><td></td><td align="center">(0.01)</td><td align="center">(0.02)</td><td align="center">(0.03)</td></tr>
<tr><td>Information</td><td></td><td align="center">1.78***</td><td align="center">1.77**</td></tr>
<tr><td></td><td></td><td align="center">(0.61)</td><td align="center">(0.69)</td></tr>
<tr><td>Signalling option</td><td></td><td></td><td align="center">-0.02</td></tr>
<tr><td></td><td></td><td></td><td align="center">(0.77)</td></tr>
<tr><td>Constant</td><td align="center">27.29***</td><td align="center">26.71***</td><td align="center">26.71***</td></tr>
<tr><td></td><td align="center">(0.50)</td><td align="center">(0.54)</td><td align="center">(0.57)</td></tr>
<tr><td>Observations</td><td align="center">7192</td><td align="center">7192</td><td align="center">7192</td></tr>
<tr><td>R^2</td><td align="center">0.078</td><td align="center">0.079</td><td align="center">0.079</td></tr>
<tr><td>FE</td><td align="center">YES</td><td align="center">YES</td><td align="center">YES</td></tr>
<tr><td>Ethnic_dummy</td><td align="center">NO</td><td align="center">NO</td><td align="center">NO</td></tr>
</table>

Standard errors in brackets.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$.

Table C2: Relative status of recipient

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity
Union member j	0.68* (0.40)			
Ethnic minority j	-0.14 (0.21)			
Same ethnic group		1.35** (0.60)	1.37** (0.60)	
Same labour status		0.79* (0.41)		
Both union members			1.72*** (0.62)	1.72*** (0.62)
Both non-union members			0.01 (0.56)	0.02 (0.56)
Same ethnic majority				1.85** (0.81)
Same ethnic minority				0.44 (1.33)
Constant	28.04*** (0.80)	25.89*** (2.07)	25.95*** (2.06)	25.95*** (2.06)
Observations	5732	5232	5232	5232
R^2	0.087	0.090	0.091	0.091
FE	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES

Standard errors in brackets. $^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls omitted.

Table C3: Relative hierarchy in opponent's status

	(1) Generosity	(2) Generosity	(3) Generosity
Lower union j	-1.74*** (0.62)	-1.71*** (0.62)	-1.73*** (0.62)
Higher union j	0.00 (0.56)	-0.04 (0.56)	0.00 (0.56)
Lower ethnic j	-1.33* (0.76)		-1.50* (0.77)
Higher ethnic j		-0.63 (0.75)	-0.91 (0.77)
Constant	28.45*** (2.19)	27.04*** (2.05)	28.56*** (2.20)
Observations	5232	5232	5232
R^2	0.091	0.090	0.091
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	YES	YES	YES

Standard errors in parentheses. $^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender and baseline controls not reported.

Table C4: Union status versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Union j vs. no info	1.34** (0.55)					
Non-union j vs. no info		1.11* (0.57)				
Match union vs. no info			2.27*** (0.87)			
Lower union j vs. no info				1.30 (0.91)		
Match non-union vs. no info					0.98 (0.72)	
Higher union j vs. no info						0.60 (0.69)
Constant	26.56*** (0.61)	26.67*** (0.62)	27.59*** (0.94)	26.99*** (0.96)	26.55*** (0.80)	25.75*** (0.79)
Observations	4340	4274	2054	1903	2362	2277
R^2	0.085	0.070	0.065	0.056	0.086	0.111
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Baseline controls not reported.

Table C5: Ethnicity compared to no information

	(1) Generosity	(2) Generosity	(3) Generosity
Ethnic match vs. no info	0.84 (0.79)		
Lower ethnic j vs. no info		-3.38*** (0.92)	
Higher ethnic j vs. no info			3.36*** (0.64)
Constant	27.62*** (0.73)	27.91*** (0.76)	26.30*** (0.64)
Observations	2318	2678	3621
R^2	0.097	0.094	0.078
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in brackets. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Baseline controls not reported.

Table C6: Interactions - union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Match union, match ethnic	1.95 (1.33)					
Match union, lower ethnic j		-2.94** (1.30)				
Match union, higher ethnic j			6.53*** (1.11)			
Lower union j, match ethnic				1.26 (1.44)		
Lower union j, lower ethnic j					-3.62** (1.41)	
Lower union j, higher ethnic j						4.53*** (1.15)
Constant	27.53*** (0.80)	28.94*** (0.80)	26.30*** (0.78)	27.92*** (0.81)	27.55*** (0.83)	26.32*** (0.77)
Observations	1674	1807	1941	1635	1788	1860
R^2	0.111	0.096	0.101	0.097	0.101	0.090
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses.*$p < 0.10$,**$p < 0.05$,***$p < 0.01$. Baseline controls not reported.

Table C7: Interactions - non union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Higher union j, match ethnic	-1.83 (1.40)					
Higher union j, lower ethnic j		-5.03*** (1.51)				
Higher union j, higher ethnic j			2.46*** (0.95)			
Match non-union, match ethnic				1.09 (1.36)		
Match non-union, lower ethnic j					-1.87 (1.49)	
Match non-union, higher ethnic j						2.15** (0.96)
Constant	27.23*** (0.78)	27.78*** (0.76)	27.11*** (0.74)	27.89*** (0.77)	26.75*** (0.79)	28.07*** (0.74)
Observations	1626	1655	2049	1649	1694	2037
R^2	0.102	0.101	0.089	0.085	0.086	0.085
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	NO	NO	NO	NO	NO	NO

Standard errors in parentheses.*$p < 0.10$,**$p < 0.05$,***$p < 0.01$. Baseline controls not reported.

Table C8: Subcontracted union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity
Union j vs. no info	3.04*** (0.84)		
Union j vs. no info x subcontracted i	-3.20*** (1.00)		
Match union vs. no info		3.99*** (1.18)	
Match union vs. no info x subcontracted i		-3.77** (1.53)	
Lower union j vs. no info			2.70** (1.24)
Lower union j vs. no info x subcontracted i			-2.96* (1.57)
Constant	26.76*** (0.62)	28.61*** (0.94)	28.13*** (0.97)
Observations	4184	1992	1845
R^2	0.084	0.063	0.051
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Baseline controls not reported.
Note: subcontracted always refer to the player making the offer.

Table C9: Subcontracted non union versus no information

	(1) Generosity	(2) Generosity	(3) Generosity
Non-union j vs. no info	3.51*** (0.87)		
Non union j vs. no info x subcontracted i	-4.09*** (1.03)		
Match non-union vs. no info		4.68*** (1.27)	
Match non-union vs. no info x subcontracted i		-5.35*** (1.42)	
Higher union j vs. no info			1.63 (1.21)
Higher union j vs. no info x subcontracted i			-1.85 (1.37)
Constant	27.01*** (0.63)	26.00*** (0.82)	24.97*** (0.80)
Observations	4115	2270	2192
R^2	0.071	0.093	0.115
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in parentheses. $^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Baseline controls not reported.
Note: subcontracted always refer to the player making the offer.

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity
Zulu	2.18 (1.52)	2.14 (1.54)	0.92 (1.65)	2.82* (1.59)
Sepedi	1.35 (1.56)	1.31 (1.57)	0.46 (1.62)	1.73 (1.60)
Ndebele	1.66 (1.60)	1.82 (1.60)	1.00 (1.64)	2.13 (1.63)
Swati	1.45 (1.57)	1.55 (1.58)	1.01 (1.60)	1.83 (1.59)
Tsonga	1.71 (1.54)	1.85 (1.55)	1.49 (1.56)	2.11 (1.55)
Sotho	1.11 (1.66)	1.37 (1.67)	1.22 (1.67)	1.47 (1.67)
Xhosa	1.47 (1.68)	1.63 (1.69)	1.55 (1.69)	1.73 (1.69)
Afrikaans	0.11 (1.78)	0.58 (1.79)	0.41 (1.79)	0.56 (1.79)
English	-4.82 (3.28)	-4.56 (3.28)	-4.37 (3.28)	-4.49 (3.28)
Same labour status		0.48 (0.32)		
Same ethnic group		1.29*** (0.46)		
Lower union j			-1.07** (0.47)	
Lower ethnic j			-1.52** (0.60)	
Higher union j				0.00 (0.45)
Higher ethnic j				-0.42 (0.60)
Constant	26.27*** (1.56)	25.70*** (1.58)	27.83*** (1.69)	25.94*** (1.58)
Observations	10637	10398	10398	10398
R^2	0.084	0.087	0.087	0.086
FE	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	
Ethnic_dummy				

Standard errors in brackets.$^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender controls not reported.

	(1) Generosity	(2) Generosity	(3) Generosity
		Table C11: Ethnicities match	
Both Zulu	1.48** (0.64)	0.44 (0.82)	1.44** (0.64)
Both Sepedi	0.95 (1.22)	0.32 (1.27)	1.32 (1.23)
Both Swati	2.57* (1.42)	2.20 (1.44)	3.16** (1.45)
Both Tsonga	1.21 (0.98)	1.05 (0.99)	2.12** (1.07)
Both Ndebele	2.49 (2.10)	1.90 (2.12)	3.00 (2.12)
Both Sotho	3.39 (3.28)	3.56 (3.28)	3.30 (3.28)
Lower union j		-1.15** (0.47)	
Lower ethnic j		-0.99* (0.51)	
Higher union j			0.12 (0.45)
Higher ethnic j			1.04** (0.51)
Constant	27.59*** (0.51)	28.43*** (0.60)	27.06*** (0.57)
Observations	10460	10398	10398
R^2	0.086	0.087	0.086
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	NO	NO	NO

Standard errors in brackets. $^*p < 0.10,^{**}p < 0.05,^{***}p < 0.01$. Gender controls not reported.

Table C12: Relative status interactions - union members

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Both union members	1.77*** (0.63)	2.39*** (0.73)	0.40 (0.71)			
Same ethnic group	1.72*** (0.66)			0.56 (0.65)		
Match union x match ethnic	-1.55 (1.23)					
Lower ethnic j		-0.76 (0.76)			-1.21 (0.76)	
Match union x lower ethnic j		-2.05** (0.98)				
Higher ethnic j			-1.23 (0.76)			-0.34 (0.75)
Match union x higher ethnic j			2.82*** (1.04)			
Lower union j				-2.08*** (0.64)	-1.43* (0.75)	-0.86 (0.71)
Lower union j x match ethnic				3.24** (1.30)		
Lower union j x lower ethnic j					-0.14 (1.03)	
Lower union j x higher ethnic j						-1.68 (1.09)
Constant	25.93*** (2.01)	27.02*** (2.15)	26.14*** (2.01)	26.88*** (2.02)	28.02*** (2.15)	26.49*** (2.02)
Observations	5532	5532	5532	5532	5532	5532
R^2	0.088	0.088	0.088	0.088	0.087	0.087
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES	YES	YES

Standard errors in parentheses. $^*p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$. Gender and baseline controls omitted.

Table C13: Relative status interactions - non union members

	(1) Generosity	(2) Generosity	(3) Generosity	(4) Generosity	(5) Generosity	(6) Generosity
Both non-union members	0.09 (0.58)	-0.52 (0.69)	0.42 (0.68)			
Same ethnic group	1.42** (0.66)				1.54** (0.65)	
Match non union x match ethnic	-0.47 (1.26)					
Lower ethnic j		-1.56** (0.78)			-0.93 (0.75)	
Match non union x lower ethnic j		1.22 (0.96)				
Higher ethnic j			-0.37 (0.79)			-0.21 (0.75)
Match non union x higher ethnic j			-0.91 (0.99)			
Higher union j				0.13 (0.58)	0.01 (0.54)	-0.04 (0.54)
Higher union j x match ethnic				-1.03 (1.30)		
Higher union j x lower ethnic j					-1.36* (0.81)	
Higher union j x higher ethnic j						-2.42*** (0.91)
Constant	26.18*** (2.01)	27.68*** (2.15)	26.11*** (2.02)	26.18*** (2.01)	27.68*** (2.15)	26.21*** (2.01)
Observations	5532	5532	5532	5532	5532	5532
R^2	0.086	0.086	0.086	0.086	0.086	0.087
FE	YES	YES	YES	YES	YES	YES
Baseline_controls	YES	YES	YES	YES	YES	YES
Ethnic_dummy	YES	YES	YES	YES	YES	YES

Standard errors in parentheses. $^*p < 0.10,$ $^{**}p < 0.05,$ $^{***}p < 0.01$. Loss not reported.

Table C14: Subcontracted

	(1) Generosity	(2) Generosity	(3) Generosity
Both union members	2.26** (0.88)	2.28*** (0.88)	2.21** (0.88)
Both union members x subcontracted i	-0.94 (1.23)	-0.94 (1.23)	-0.86 (1.23)
Both non-union members	2.40** (1.03)	2.33** (1.03)	2.44** (1.03)
Both non-union members x subcontracted i	-3.36*** (1.23)	-3.30*** (1.23)	-3.40*** (1.23)
Constant	25.54*** (2.07)	27.08*** (2.22)	25.64*** (2.07)
Observations	5077	5077	5077
R^2	0.090	0.090	0.089
FE	YES	YES	YES
Baseline_controls	YES	YES	YES
Ethnic_dummy	YES	YES	YES
Ethnic	Match	Higher	Lower

Standard errors in parentheses. $^*p < 0.10,$ $^{**}p < 0.05,$ $^{***}p < 0.01$. Gender and baseline controls omitted.
Insignificant ethnic hierarchy/match, interacted with subcontracted not reported.
Note: subcontracted always refer to the player making the offer.

	(1) Generosity	(2) Generosity	(3) Generosity
Both union members	1.05	1.02	1.05
	(0.74)	(0.74)	(0.74)
Both union members x wage i	0.01	0.02	0.00
	(0.30)	(0.30)	(0.30)
Both non-union members	-0.64	-0.59	-0.58
	(0.64)	(0.64)	(0.64)
Both non-union members x wage i	0.40	0.37	0.39
	(0.36)	(0.36)	(0.36)
Same ethnic group	1.83***		
	(0.67)		
Same ethnicity x wage i	-0.39		
	(0.31)		
Lower ethnic j		-2.21***	
		(0.72)	
Lower ethnic j x wage i		0.58**	
		(0.28)	
Higher ethnic j			0.23
			(0.74)
Higher ethnic j x wage i			-0.50
			(0.33)
Constant	25.90***	27.26***	25.88***
	(1.55)	(1.66)	(1.55)
Observations	10776	10776	10776
R^2	0.086	0.087	0.086
FE	YES	YES	YES

Standard errors in parentheses. $^*p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$. Gender match not reported.

Controls: loss, signal, and (insignificant) ethnichierarchy/match, interacted with subcontracted.

Note: subcontracted always refer to the player making the offer.

	(1)	(2)
	Signal Labour	Signal Ethnicity
Generosity	0.00***	0.00
	(0.00)	(0.00)
Both union members	0.10***	0.07***
	(0.02)	(0.02)
Both non-union members	-0.01	-0.01
	(0.02)	(0.02)
Same ethnic group	-0.01	0.06***
	(0.02)	(0.02)
Lower ethnic j	-0.02	-0.01
	(0.03)	(0.03)
Constant	0.60***	0.63***
	(0.06)	(0.06)
Observations	2601	2662
R^2	0.033	0.024
FE	YES	YES
Baseline_controls	YES	YES
Ethnic_dummy	YES	YES

Table C16: Signalling choice

Standard errors in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Gender and baseline controls omitted