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Opportunistic discrimination

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ABSTRACT

Are minorities more vulnerable to opportunism? We find that individuals from a minority group face greater danger of being cheated because trade with them is less frequent and the value of a reputation for fairness toward them is correspondingly smaller. When the majority is sufficiently large it can only lose from a solidarity strategy of punishing opportunism against the minority, so a firm that cheats the minority can still continue business as usual with the majority. If there is a small chance that a firm might have an implicit or preference bias against either group, then the interaction with reputational incentives gives unbiased firms an incentive to cheat the minority but not the majority. The prediction that smaller groups are more susceptible to discrimination distinguishes the model from most other discrimination models.

> Where people seldom deal with one another, we find that they are somewhat disposed to cheat, because they can gain more by a smart trick than they can lose by the injury which it does their character.
>
> – Adam Smith, *Lectures on Jurisprudence*, 1766

1. Introduction

How do people react when other people are cheated? If a person's property is stolen during ethnic unrest, is the perpetrator viewed as opportunistic toward everyone or as someone who can still be trusted in his own community? If a woman is unfairly denied a promotion, do her male colleagues expect a similar fate or do they see the firm as opportunistic only toward women? If a government expropriates foreign investors, is it treated as untrustworthy toward everyone or only toward foreigners? If an insurance company fails to pay one group of policyholders, do others expect similar opportunism or do they still expect to be treated fairly?

The incentive to engage in opportunism clearly depends on this question of how people are expected to react to it. As Smith (1766) noted, a trader must weigh the immediate gains from cheating against the loss from a damaged reputation. But in evaluating this tradeoff it is not clear that all acts of opportunism affect reputation in the same way. If a person from one group is cheated, might people from another group just ignore it and proceed with business as usual? If so, then the incentive to cheat a person can depend on that person's group identity, so that it might be profitable to cheat members of one group but not another.

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Despite the central role that opportunism plays in many areas of economics, the idea that discrimination can involve some people being "cheated" is surprisingly absent from economic theories of discrimination, including models of occupational segregation (Fawcett, 1892), non-competitive wage setting (Fawcett, 1918; Edgeworth, 1922), discriminatory preferences (Becker, 1957), statistical discrimination (Phelps, 1972; Arrow, 1973; Lundberg and Startz, 1983; Coate and Loury, 1993), search costs (Black, 1995; Mailath et al., 2000), identity (Akerlof and Kranton, 2000), coordination (Eeckhout, 2006), association (Peski and Szentes, 2013), and implicit bias (Greenwald et al., 1998; Bertrand et al., 2006). These models do not capture the idea that people from some groups are more likely to be taken advantage of than others. Such discrimination might be due to differential ability to enforce contractual remedies against opportunism because of unequal access to the legal system (Douglass, 1879), but equal access alone does not ensure fairness due to the inherent difficulty of enforcing contracts in many environments (Williamson, 1985). We examine how opportunism can be discriminatory in an environment where the primary constraint on opportunism is reputational rather than contractual or legal.

Most discrimination models predict that there is no effect of group size on the susceptibility to discrimination, or that discrimination is actually worse for larger groups.[1] In particular, preference-based models of discrimination find that the effects of bias become worse as the group facing bias becomes larger and its members find it increasingly difficult to find positions among unbiased firms. In contrast, the opportunistic discrimination model we analyze predicts that discrimination is directed against the minority. This prediction is consistent with the common perception that "minorities" in different societies are at a disadvantage. It is also consistent with U.S. survey data showing that both men and women are more likely to report gender discrimination in occupations in which their gender is in the minority (Antecol and Kuhn, 2000), with laboratory experiments showing that minorities are less trusting (e.g., Fershtman and Gneezy, 2001), and with field experiments showing that minorities are more likely to be taken advantage of in bargaining environments (Ayres and Siegelman, 1995; Ayres, 2001).

To understand opportunistic discrimination against a minority group, we model a simple repeated trust game (Kreps, 1990) between a firm and a set of individuals. In each period one of the individuals trusts the firm by making a non-contractible investment or other resource commitment, and the firm then either cheats the individual by taking all the gains of the investment, or lets the individual benefit as well. Since only one player has the choice of whether to be opportunistic, this "one-sided prisoner's dilemma" is the simplest environment in which to analyze reputation. Versions of it have been used to capture relations between a firm and its contractors (Klein and Leffler, 1981), an owner and a series of managers (Radner, 1985), a salesperson and his customers (Dasgupta, 1990), a government and foreign merchants (Greif et al., 1994), etc. Consistent with Smith's early arguments, if trade is sufficiently frequent,[2] or equivalently if the firm is sufficiently patient, trust can be sustained by a grim trigger strategy where everyone initially trusts the firm but if the firm cheats anyone then no one trusts the firm again.

We analyze this game when the set of individuals is divided into two identifiable groups that interact with the firm with different frequencies, i.e., one is the "majority" and the other the "minority". We first consider the standard grim trigger strategy, which we refer to as the "solidarity trigger strategy". Given that individuals follow such a strategy, it is foolish for the firm to cheat anyone unless it plans to cheat everyone, so there is a reputation spillover and individuals are right to stop trusting the firm if it cheats a member of the other group. We then consider a "discriminatory trigger strategy" where individuals stop trusting the firm if it cheats a member of their own group, but continue to trust the firm if a member of the other group is cheated. Given such a strategy, the firm recognizes that it can maintain its reputation among one group even after cheating a member of the other group. Depending on how much the firm values its reputation, a discrimination equilibrium exists in which the firm is trustworthy toward one group but not toward the other group.

Since the minority group is smaller, transactions with the minority are rarer, and the value of maintaining a reputation for fairness toward the minority is correspondingly smaller. Therefore, even though majority and minority individuals are identical and the firm need not have any discriminatory preferences or other biases, we find that a discrimination equilibrium with discrimination against the minority is supported by a wider range of discount factors for the firm. Both the firm and the minority are better off ex ante if the firm can be trusted, but the minority is too small to sufficiently punish the firm for any opportunism so the firm has an incentive to cheat the minority ex post unless the majority switches to the solidarity trigger strategy. If the majority is sufficiently large to protect itself by punishing opportunism against its own members, then it gains nothing from standing with the minority, so the minority is vulnerable to opportunism.[3]

A problem with repeated trust games is that it is often not credible to punish cheating since the players have an incentive to forgive the cheater.[4] To address this renegotiation problem we assume that with some probability in any period the firm becomes inept and cheats the individual because it cannot generate sufficient surplus to reward him. Because of this small

[1] Search-based models predict that either the minority or majority can be discriminated against, with the exception of Lundberg and Startz (2007) in which there is less return to learning about the ability of small groups, and of Black (1995) in which biased firms survive at a lower rate as the minority population increases. In a repeated prisoner's dilemma where cooperation is encouraged by lack of attractive outside options, Eeckhout (2006) finds that there can exist segregation equilibria where the minority is worse off.

[2] Smith (1766) argues that trust increases with the frequency of commercial exchange and that opportunism is therefore most problematic in undeveloped regions like his native Scotland. His emphasis on the frequency of interactions as determining the possibility for trust also appears in his claim that opportunism is more likely in political and diplomatic activities where transactions are less frequent than they are in commerce.

[3] Note that in our model there is no competition for resources between the majority and minority as in models of ethnic conflict (Esteban and Ray, 2008), so the majority does not gain directly from firm discrimination against the minority.

[4] Farrell and Weizsacker (2001) show that the standard trigger strategy in a trust game with complete information is not renegotiation-proof. Moreover, unlike the case of the repeated prisoner's dilemma (van Damme, 1989), there does not exist a more complicated equilibrium strategy that is payoff-equivalent or nearly so.