

# Social and moral distance in risky settings

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## Abstract

This paper reports the results of probabilistic dictator game experiments in which we manipulate the social and moral distance between dictators and recipients. The reduction in moral distance significantly increases both the probability of a positive allocation and the allocation amount, whereas the reduction in social distance is less effective. We propose a model that accounts not only for ex ante and ex post fairness concerns, but also for the potential effect of altruism on allocation decisions. We find support for this model in our data, in the sense that decreasing social and/or moral distance significantly increases the odds of fair choices.

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The effects of many socially desirable actions are frequently subject to risk. It is often the case that the decision-maker should be willing to sacrifice his own material benefits in order to increase the payoff chances—rather than the sure payoff—of others. When giving to a charity, for instance, the donor does not know with certainty whether his money will actually reach the people in need. It could also be the case that the decision-maker should give up chances of own success to increase, either with certainty or with only some positive probability, the well-being of others. For instance, a healthcare worker treating patients with an infectious disease may become himself infected and should therefore be willing to put his life in jeopardy to assist others.

Most of the existing studies on other-regarding preferences under risk have focused on situations in which the others are anonymous, but in reality one often comes face to face with those in need, or knows their circumstances when he voluntarily decides to reduce his sure payoff or his chances of success in order to increase their well-being (either deterministically or probabilistically). Charitable organizations have various methods of letting potential donors know who the beneficiaries of their activities will be, from merely showing them pictures of the people in need to providing detailed information about them. Healthcare professionals can see the patients that have been infected by an infectious disease while trying to cure them.

In the present paper we use a series of allocation tasks, all of them variations of the standard dictator game, to investigate whether and to what extent reducing the recipient's anonymity affects the dictator's giving behavior in the presence of risk. This question merits attention because anonymity is an important driver of human behavior (Burnham 2003; Engel 2011) and, to the best of our knowledge, no study has yet thoroughly explored how reducing the other's anonymity affects giving under risk.

We focus on three types of risk—risk only on the recipient, risk only on oneself, and risk on both the recipient and oneself—and assess how decision-makers react to the introduction of each one of these risks when the recipients, instead of being anonymous, are less socially and/or morally distant from them. Social distance refers to the extent to which an individual feels close to another person (e.g., Bogardus 1926). A handful of experimental economics studies have related social distance to the ability of the dictator to identify his counterpart. In this study, we use photos of the recipients to shorten the social distance between the two parties. Such photos reduce anonymity without having the potential confounding effects of spoken words in verbal messages, or of facial movements in videos. Moral distance, i.e., the degree of moral obligation that one feels toward the other, relates to the information that the dictator has about the neediness of the recipient (Aguiar et al. 2008). Herein, we create a moral context for the dictators' decisions by assigning the role of recipient to common, everyday people who have experienced a reduction in income and wealth since the advent of the global financial crisis in 2008.

In our experiment, each dictator is confronted with four allocation tasks that vary the

riskiness of the dictator’s and/or the recipient’s earnings in a controlled manner. Our settings are similar to those in Krawczyk and Le Lec (2010), Brock et al. (2013), Cettolin et al. (2017), and Freundt and Lange (2017). Besides the standard (risk-free) dictator game, the dictator has to complete three risk-involving tasks that coincide with the standard dictator game in terms of expected payoffs, but capture the three types of risk we are interested in. In one of these tasks, only the recipient is exposed to risk and the dictator can, by reducing his own sure monetary payoff, increase the recipient’s chances of winning a prize. In another task, only the dictator’s earnings are risky, in the sense that the recipient earns exactly the transferred amount whereas the dictator’s chances of winning the prize decrease with the amount transferred to the recipient. In the final task, both the dictator and the recipient face risk and the dictator chooses the probabilities with which he himself and the other win the prize. In all three risk-involving tasks, the dictator is asked to make his choice before risk is resolved and is aware that, depending on the realized state of the world, his own final payoff may be larger or smaller than that of the recipient.

To examine whether and how relaxing the assumption of recipient anonymity affects giving under each type of risk we run four treatments with four different groups of subjects: a control treatment in which the recipient is completely anonymous to the dictator; a social-distance-reducing treatment in which the dictator sees a photo of the recipient prior to his allocation decisions (Photo treatment); a moral-distance-reducing treatment in which the dictator makes his decisions being aware of how the financial crisis impacted on the recipient’s income and wealth (Info treatment); and, finally, a treatment in which both social and moral distance are reduced in tandem (Photo+Info treatment).

With standard, selfish preferences, dictators are expected to give zero independently of allocation task and treatment. However, in the literature on other-regarding preferences, several theories have been proposed on the role of inequality aversion under certainty (e.g., Fehr and Schmidt 1999; Bolton and Ockenfels 2000; Charness and Rabin 2002) and there is a small but growing body of research that extends such preferences to risky environments, mainly by studying the trade-off between *ex ante* (or procedural) fairness—which focuses on initial opportunities—and *ex post* (or consequentialist) fairness—which focuses on realized outcomes. Saito (2013) axiomatize a model of inequality aversion under risk using the Fehr and Schmidt (1999) utility function. Brock et al. (2013) provide, and test experimentally, a generalization of the Fehr and Schmidt model that incorporates *ex ante* and *ex post* motives of fairness. These extensions of inequality aversion to risky settings have considered situations where the recipients are anonymous.

Previous economic experiments on standard dictator games have documented that dictators are more likely to be altruistic when subject-subject anonymity is relaxed by decreasing the social and moral distance between the dictator and the recipient. It is therefore crucial in our setting—where the dictators face risk-involving allocation tasks and the recipients are

not anonymous in the experimental treatments—to account not only for ex ante and ex post fairness concerns, but also for the potential effect of altruism on allocation decisions. We propose a simple model that extends the approach of Brock et al. (2013) and Saito (2013) so as to allow for altruistic behavior by dictators. Our main objective here is to indicate a possible channel through which the reduction in recipient anonymity could result in less selfishness and more generosity among the dictators. The model incorporates ex ante and ex post fairness and uses a utility function characterized by three parameters: the weight on the other’s payoff when the recipient earns more than the dictator, the weight (on the other’s payoff) when the recipient earns less than the dictator, and the change in weight when the dictator becomes altruistic. Thus, we combine preferences for fairness with altruism by means of postulating that the more altruistic a decision-maker is, the more he dislikes inequality.

We initially establish that our findings when using the Control treatment data resemble those of earlier studies: as compared to the risk-free allocation task, average giving in the three tasks involving risk is indeed smaller. It follows that a purely ex ante view of fairness, based entirely on expected payoffs, cannot account for the dictators’ decisions under risk. On the other hand, since the dictators give up less of their endowment when they themselves rather than the recipients are exposed to risk, ex post fairness concerns cannot by themselves rationalize the data. Most importantly, the experimental results are broadly supportive of our simple model. First, having controlled for the effects of the various types of risk on generosity, both the frequency and the level of positive giving are significantly higher when dictators are provided with information on the impact of the financial crisis on the recipients’ circumstances. Second, creating a moral context for the dictators’ decisions significantly increases the probability of a fair choice; with less information, the probability of an hyperfair choice (i.e., giving more than the equal split) would have been smaller.

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