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[Home](#) > [Social Sciences](#) > [Psychology](#) > [Under the Curve](#) > Brother, Can You Spare a Dime?

Brother, Can You Spare a Dime?

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Suppose I give you \$10. Wait. Don't spend it yet. Suppose I give you \$10 – *and* an opportunity to do a good deed. Let's say you have the option of sharing the windfall with an anonymous stranger, waiting in the next room. How much do you slip under the door? Five dollars? One dollar? An empty envelope?

Altruism – a sacrifice by one individual for the benefit of another – has long been a puzzle for philosophers and scientists alike. Why is one person more charitable than another? Are there certain circumstances that favor cooperation at the expense of competition? Economist Mary Rigdon of the University of Michigan's Research Center for Group Dynamics – and her colleagues in Michigan and at Hokkaido University and Tokyo University – have applied Game Theory to these questions, with intriguing results.

Game Theory provides an experimental framework for studying strategic interaction. Such experiments often involve economic decisions – choices about money and how it should be shared among participants. There are a number of games in the experimental economist's toolkit. The experiments conducted at the University of Michigan employed a variation known as the Dictator Game – distinguished from other models by its complete lack of reciprocity. In the Dictator Game, subjects are paired and one person in each pair – the Dictator – is given a fixed amount of money and asked to allocate it, however she sees fit, between herself and her counterpart – the Recipient. Previous experiments have shown that Dictators behave more generously when they believe they are being watched – that is, when their donations are being monitored, either by the Recipient or by an experimenter. When Dictators are assured of their anonymity in double-blind experiments – in which neither the Recipient nor the experimenter is capable of linking a particular donation to the identity of an individual Dictator – the average donation shrinks, and a higher proportion of Dictators play what theorists refer to as the dominant strategy – stiffing the Recipient and keeping the entire endowment.

In the Michigan experiments, the researchers employed such a double-blind design, but they added a twist. They randomly divided the Dictators – 51 male and 62 female University of Michigan undergrads – into 2 groups: Face and Control. Each Dictator received a decision form – a sheet of paper explaining that she had \$10 to allocate between herself and a Recipient in the next room, and containing blanks in which to mark her decision. In the center of each decision form were three black dots – about a cm in diameter – in one of two configurations. Subjects in the Face group received forms on which the dots exhibited an arrow-down arrangement – two dots side by side, and another below and centered horizontally. When asked, people frequently say this configuration resembles a crude face and, in fact, neurologists have shown that this simple pattern mildly activates neural activity in a part of the brain known as the fusiform face area – a part of the temporal lobe involved in facial recognition. The Control group received decision forms on which the dots appeared in the opposite orientation – with the arrow pointing up. Experiments have shown that people are much less likely to associate this arrangement with a face. Nor does this arrangement appear to stimulate the fusiform face area of the brain.

Rigdon and company wondered whether the presence of such a seemingly weak stimulus – these vaguely perceived “watching eyes” – could diminish the Dictators’ tendency to take advantage of their anonymity. If so, they should be expected to give more. Now, it should be noted that other groups have performed “watching eyes” versions of the Dictator Game and have, in fact, observed a correlation between watching eyes and increased giving. However, these earlier experiments used more explicit representations of eyes, sometimes within partial faces. The Michigan experiments differed by virtue of the abstract minimalism of the stimulus, and in the inherent symmetry between the experimental treatment and the control.

The results – published February 23, online in advance of print, by the *Journal of Economic Psychology* – were dramatic. In the Control group, 40% of Dictators played the dominant strategy – giving \$0 to the Recipient. In the Face group, only 25% gave \$0. Additionally, the researchers considered the gender of the Dictators. Work by other groups has shown that women give, on average, more than men in the Dictator Game – a pattern which held in the Michigan experiments. Previously, however, no one had documented the effect of “watching eyes” in a gender-specific manner. Somewhat surprisingly, Rigdon and colleagues found that all of the increased giving in the Face group was the result of increased giving by men. Among women they observed no significant differences between Face and Control groups, in either the proportion playing the dominant strategy or in the average contribution. Men, however, were only a third as likely to play the dominant strategy when confronted with the “watching eyes” configuration of dots (21% vs. 63%) and their average gift more than doubled – from \$1.41 to \$3.00. Furthermore, it turns out that when only the Face group is considered, behavioral differences between genders disappear. The presence of the “watching eyes” seems to have evoked in the male Dictators the same level of altruism exhibited by female dictators with or without the cue.

The authors suggest this may be a reflection of a greater level of what psychologists refer to as relational-interdependence in women. Relational-interdependence is a measure of the degree to which one views interpersonal relationships as central to one’s identity. “If a person feels more interdependent with others, she may be more likely to be generous in a charitable giving scenario regardless of the degree of social cues present. And therefore, she would be less responsive to the stimulus provided in our experiment,” explains Mary Rigdon. The upshot is not so much that women seem to start out farther along the altruism curve than men – but that the other half can be nudged toward the same behavior with the gentlest of cues.

Bart Wilson, an economist at Chapman University, in California, says that “in general, economists are struggling with this idea or assumption that men and women take everything for themselves... and that’s just a fiction.” He says Rigdon and colleagues’ findings add “one more piece of evidence that man is a much more sophisticated being than economists have given him credit for the last fifty years.”

An expert in the subtle dynamics of giving, Rigdon wonders at the spirit of generosity so prominent in human affairs. “You look at charitable giving. The vast majority of people will give to charities over the years.” Indeed, according to the philanthropic organization Giving USA, charitable contributions topped \$300 billion in the U.S. in 2007 – the most ever. According to the group’s website, more than 65% of households with income below \$100,000 give to charity in a given year. “As economists and as social scientists, I think we just want to understand why these people give,” Rigdon continues, “and then try to use that to understand how you can design institutions and mechanisms that can increase charitable giving.”

Economic hard times are known to present special challenges for charitable organizations – and for the people who

find themselves in need of their assistance. For philanthropic endeavors, succeeding in trying times may be a matter of bridging the distances that separate us and reminding would-be donors of what connects us all – our common humanity and our inescapable interdependence.

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