# Smile, Dictator, You're on Camera

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We investigate the degree to which people in a shopping mall express other-regarding behavior in the dictator game. Whereas many studies have attempted to increase the social distance between the dictator and experimenter and between the dictator and recipient, we attempt to minimize that social distance between random strangers by video recording the decisions, with the permission of the dictators, to display their image on the Internet. Offers made by dictators are high, relative to other experiments, and a nontrivial number give the entire experimental windfall away. However, a nontrivial number of people keep everything as well.

JEL Classification: A13, C70, C93, D63

#### 1. Introduction

One of the most commonly conducted laboratory experiments is the dictator game, a simple game in which a sender divides a fixed amount of money between himself and another player, the receiver. The receiver cannot reject any allocation, so the game-theoretic prediction is for the sender to keep everything. Nevertheless, in independent replicated experiments, dictators consistently give nonzero amounts (for a summary, see Camerer 2003).

The distribution of offers is highly sensitive to the experimental context, which is one reason that experimentalists continue to conduct further dictator-game experiments. See Smith (2008) for a discussion. For example, allowing a participant to earn the right to be a dictator decreases offers. Hoffman, McCabe, and Smith (1996; hereafter HMS) use the degree of anonymity as a treatment and find that procedures that increase anonymity cause dictators to offer less money. Cherry, Frykblom, and Shogren (2002) combine these treatments and add a high-stakes version. With anonymity, earned wealth, and high stakes, dictators keep everything an astounding 97% of the time. Bardsley (2008) and List (2007) redefine the choice set in the dictator game to include the option of taking some money from the other person. They independently find that this variation reduces offers significantly, and they conclude that participant expectations and social norms have

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Received December 2016; accepted January 2017.

<sup>&</sup>lt;sup>1</sup> One example of how context affects outcomes is that dictators are less generous if the experimenter has creating a feeling of ownership over the right to be in the dictator role. Hoffman et al. (1994) explore this concept by assigning roles based on scores on a general knowledge quiz, and Schurter and Wilson (2009) assign dictators by class rank (credit hours completed). Oxoby and Spraggon (2008) conclude that it matters who earns the stakes: when dictators earn stakes, they offer nothing, but when recipients earn stakes, dictators offer significant amounts.

a significant effect on dictator decisions. In each of these experiments, the strategic structure is typically modeled in the same way—as a dictator game—but the distribution of offers varies significantly.

One common aim of dictator-game experiments variations is to identify the conditions that "produce rational behavior"—that is, to design treatments and procedures such that subjects adhere to standard game-theoretic predictions (Cherry, Frykblom, and Jacquemet 2002, p. 1218). These experiments isolate subjects and emphasize the fact that the game is a one-shot situation. One notable exception is Frey and Bohnet (1995), who take students from their own principles-of-microeconomics class and conduct treatments where participants can identify one another or communicate with one another. They find that identification brings the mean offer to half the endowment. Since this experiment was conducted within a classroom setting, the students have the reasonable expectation of interacting in the future, which their findings bear out. Finally, as evidence of just how socially sensitive dictators are, Rigdon et al. (2009) find that the weak social cue of three dots in the form of "watching eyes" increases dictator offers.

HMS describe their treatments as manipulations of the social distance between the participants in the dictator game and the experimenter, which they define as "the degree of reciprocity that subjects believe exist within a social interaction" (p. 644). Their dictator decisions are designed to be completely anonymous in an attempt to maximize the social distance between the dictator and the rest of the world. In this experiment, we attempt the opposite, to systematically decrease the social distance between random strangers as well as the experimenter and the world on the Internet, relative to a typical experiment conducted in a laboratory. We take the dictator game outside the laboratory and record subjects' decisions on video with their permission to post the video on the Internet. To what degree do people going about their daily lives express other-regarding behavior in the dictator game? In addition, we analyze factors influencing a potential subject's decision to either participate or not participate in our experiment.

The remainder of the article is organized as follows: section 2 provides an overview of our experimental design, procedures, and hypotheses; section 3 reports our results; and section 4 concludes with a discussion.

## 2. Experimental Design, Procedures, and Hypotheses

Traditionally, the dictator game is conducted in a laboratory among anonymous subjects recruited from the undergraduate population at a university. Participants are separated before the experiment begins and paid for their time. Instructions are designed to remove as much context as possible from the decision and not activate what HMS refer to as the "unconscious, preprogrammed rules of social exchange behavior" (p. 659).

We created three treatments to vary the level of social distance between participants and observers in this experiment, starting at a level that is acutely lower than in the typical laboratory experiment in some respects. We recruited the dictators for our experiment from people walking with friends in a shopping mall. In the *No Video* treatment, the dictator is taken aside and given the experimental task of allocating money to a stranger viewable from approximately 40 feet away. In the *Video* treatment, an experimenter explains to the participant that his or her decision will be recorded and then positions the dictator in front of a running video camera before giving the instructions on the decision task. In the *Monitor* treatment, the experimenter explains to the

#### 54 Buchanan et al.

participant and his or her companions that the participant's decision will be recorded and simultaneously displayed live on an LCD monitor at the research desk, where others can observe the experiment, and importantly, where those personally known to the dictator can watch them make the decision. This progression of treatments systematically reduces the social distance between the participant and the experimenter, his or her peers, and anyone who might someday see the video recordings.

As a baseline, the *No Video* treatment decreases social distance between the dictator and his or her peers, the recipient, and the experimenters. Unlike typical laboratory procedures that ensure anonymity, the dictator and recipient can see each other from their locations. On the other hand, this treatment increases social distance relative to a standard laboratory experiment since students at a university may feel closer to each other than shoppers at a mall. Etang, Fielding, and Knowles (2011) find that Cameroonian villagers send more money to players who are from the same village, so students might be more generous to members of their own school. A priori, it is unclear which effect will dominate in our experiment. Compared to the *No Video* treatment, the *Video* treatment decreases social distance between the dictator and anyone who might watch the video. The *Monitor* treatment further reduces social distance between the dictator, peers and any experimenters who may be watching the monitor.

The notion of social distance we use here is perhaps more expansive than HMS since we consider contact between the dictators and people outside of the experiment, for example, people who may view the video at some future date or peers of the dictator who are not participating in the experiment. Dictators may be thinking about their reputation, their idea of what kind of person they consider themselves to be. The *Monitor* treatment decreases social distance because the dictator's peers are able to observe the entire experiment. Peers could respond to an unkind action with verbal sanctions or gossip. In these respects, our notion of social distance is still closely related to the notion of group pressure that HMS discusses (p. 655).

#### **Procedures**

We conducted this experiment over two days at a high-traffic center of an indoor shopping mall in Santa Ana, California. Two of the authors, hereafter called recruiters RA (Buchanan, female) and RB (Simpson, male), recruited shoppers as they walked through the mall based on the following criteria: the shoppers had to be in a group of at least two and multiple members of the group had to appear to be at least 18 years of age. The recruiters greeted the shoppers with the following pitch: "Hello, I'm part of a research team at Chapman University. If you can spare five minutes to participate in our study, we'll pay you \$5 for your time." In most cases, shoppers stated they did not have enough time and chose not to participate. Frey and Bohnet (1995) report that over 95% of students participated in the dictator game when it was conducted in their classroom; most shoppers were not as willing, even with an offer of payment. Only 76 out of the 431 shoppers approached (17.6%) participated in our study. If shoppers asked questions about the nature of the study, the recruiters emphasized that the study would be short, that it entailed no risks, and that shoppers would be paid for their time, but gave no further details about the experiment itself.

Once a shopper agreed to participate, the recruiter led him or her to a table where one of two managers randomly assigned them to a treatment by the roll of a die. The treatment determined the necessary paperwork for subject consent and permissions. For the *Video* and *Monitor* treatments, the participant had to sign a consent form in order to be recorded, and all participants,

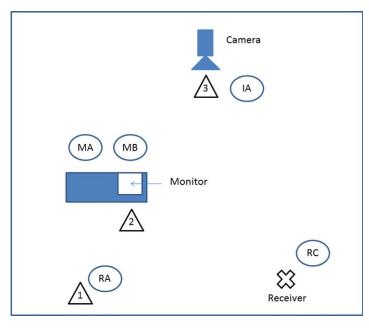


Figure 1. Experiment Diagram.

The dictator moves through three stations in the *Monitor* treatment as indicated by the numbers in triangles. First, a researcher, RA, recruits the dictator. Second, the dictator completes paperwork and leaves his or her companions at the table with managers MA and MB. Third, the dictator performs the decision task with the receiver, indicated by the cross, in view about 40 feet away. Another researcher, RC, recruits the receiver from passing shoppers. An instructor, IA, delivers instructions for the decision task and brings the payment, if any, to the receiver. Note that the diagram is not to scale. Participants are far enough away from each other that they cannot hear each other or plausibly meet in the future. [Color figure can be viewed at wileyonlinelibrary.com]

regardless of treatment, were also required to sign a consent form to participate as well as a third form acknowledging the \$5 payment. After the forms were completed and the participant had been paid, instructor IA (male) or IB (male) led the participant away from the table and the experiment began. At this point, participants still had no knowledge of the decision task. See Figure 1 for a diagram of the physical layout of the experiment and the progression of the dictator from recruitment to the table and finally to the decision task.

While the paperwork was taken care of at the desk, a recruiter, RC (McMahon, male), recruited another shopper to participate as the receiver. He approached shoppers and gave the following pitch: "Hello sir (ma'am). I'm part of a research team at Chapman University. I would like to invite you to participate in a research study we are conducting in the mall. All you need to do is stand here with me for about a minute, and you will have the chance to make money. Would you like to?" RC approached shoppers who appeared to be over 18 years of age and did not appear to have any connection with the potential dictator. By recruiting a shopper in view, we make our promise to deliver money to another person credible. By selecting a stranger who is out of earshot, we preserve the key strategic element of the dictator game: the receiver has no role in the decision and cannot respond to a low offer.

After the subjects completed the paperwork and RC recruited another participant, the experiment began. Instructor IA or IB read the following instructions from a clipboard, consistent across all three treatments: "My colleague Matt has recruited another person to participate in this study." Here the instructor paused and pointed to RC, who acknowledged the participant with a

wave. "I have \$20." At this point, the instructor displayed \$20 cash in \$1 bills. "How much of this \$20 would you like me to take to that person over there? The rest is yours to keep." We designed the instructions to be as concise as possible. Short instructions minimize the time cost to participants and ensure the instructions are delivered in a consistent way by IA and IB. Appendix 2 contains all instruction scripts.

At this point, most participants paused to process the question, and many asked for clarification. Once the subject made a decision, it was repeated to them for confirmation. The instructor then paid the subject and, if the dictator chose to give money away, walked the remaining cash over to RC and the recipient participant. The trial concluded with the other participant being paid and signing the payment-acknowledgement form.

To administer the *No Video* treatment, IA or IB led the participant away from the research table. Subjects were taken away from the video camera so there was no confusion regarding the possibility of being recorded. For the *Video* treatment, subjects were led in front of the video camera before any instructions were given. Before the instructor led the participants away for the *Monitor* treatment, a manager informed the participant and anyone with them that the video of the experiment would be shown on the LCD monitor, and invited those not participating to stay and watch. Note that the receiver was far from the table and was not watching the monitor.

The managers recorded data on all shoppers who were asked to participate over two days. When a shopper was approached, a manager recorded who had delivered the pitch, the size of the group, the gender of the person who responded, and whether the individual agreed to participate. If they agreed, a manager recorded who delivered the instructions and their final decision.

# Hypotheses

By conducting the dictator game among strangers, we are limiting the degree to which certain strategic concerns, including reciprocity from the recipient and the experimenter, will motivate offers. This aspect of the procedures tends to push offers toward zero in the laboratory. However, by recording the decisions on video, participants lose a significant degree of anonymity. The consent form grants permission to display the videos in a public setting, making the decisions explicitly not anonymous. Further, by changing the setting from the laboratory to a shopping mall, we are changing participant expectations. Undergraduates come to the laboratory expecting to earn money, but shoppers do not go to the mall expecting to be paid. These factors, we hypothesize, would tend to encourage dictators to give away some portion of the endowment.

We utilize the *No Video* treatment as our baseline and compare the results to Forsythe et al. (1994; hereafter FHSS), the first dictator game to use monetary rewards, because their results have been successfully replicated by HMS. We expect that the social distance between the participants in this setting is comparatively smaller than the social distance in a laboratory experiment, where subjects remain in separate rooms and do not directly make the decision in the physical presence of the experimenter. Thus, we hypothesize that this will lead to higher offers than in the typical dictator-game experiment.

Because the social distance between subjects and the rest of the world decreases dramatically in the *Video* treatment, we expect higher offers in this treatment than in the *No Video* treatment. The *Video* consent form does not state explicitly what the video will be used for, but only that it could involve "any communications medium currently existing or later created, including without limitation print media, television, and the Internet." This uncertainty, combined with the social

distance with respect to the recipient, which is the same as it is in the *No Video* treatment, will, we predict, lead subjects to offer more on average to their stranger counterpart.

Finally, we expect the *Monitor* treatment will increase offers compared to both treatments. In the other treatments and the typical laboratory experiment, participants can choose to hide their decision from their peers, but in the *Monitor* treatment that possibility is removed. Because of the immediate feedback that subjects will likely receive from their peers, we hypothesize that participants will offer more in this treatment than in the *No Video* and *Video* treatments. In sum, this treatment further reduces the social distance between the subject and his or her immediate peer group, while it maintains relative to the *Video* treatment the same social distance between the subject and anyone who might see the recording, and maintains relative to the *No Video* treatment the same social distance between the subject and their counterpart participant.

## 3. Results

We collected data on 22, 28, and 23 dictators in the *No Video*, *Video*, and *Monitor* treatments, respectively.<sup>2</sup> Given the prior sensitivity of the results to the procedures in conducting dictator games, we recorded additional details not normally reported in the dictator-game research, including which researcher recruited the subject and which researcher asked the dictator to make a decision. We also collected general information on the people who *declined* to participate in the study, and we transcribed what the participants on video said during the experiment. As an overview of the results, Figure 2 reports the frequency distribution of the offers by treatment and broken down by who recruited the subject.

We begin by comparing our treatments against the FHSS and HMS baseline.<sup>3</sup> The average amount given in the *No Video*, *Video*, and *Monitor* treatments was \$12.27, \$8.14, and \$11.78, respectively, or 61.35%, 40.7%, and 58.9% of the endowment, respectively. In the FHSS + HMS baseline 26% of the endowment was given, on average. Table 1 reports one-sided Wilcoxon rank-sum and (two-sided) Kolmogorov-Smirnov tests comparing the percentage of the total pie offered in our treatments with those offered in FHSS and HMS.

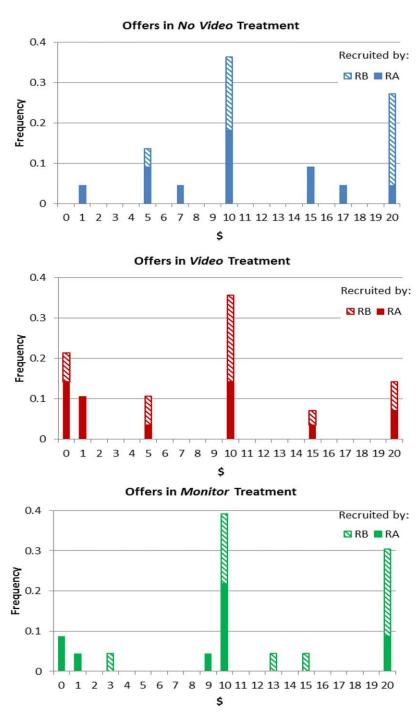
All treatments were significantly different from the FHSS + HMS baseline, though the Video treatment is marginally so with the Wilcoxon test (p-value = 0.0582). This is consistent with our joint hypotheses that social distance is lower in the  $No\ Video$  treatment than in a typical dictator game in the laboratory, and that decreasing social distance increases offers.

Jointly comparing our three treatments, a Kruskal-Wallis test indicates marginal support with an unordered alternative (KW = 5.41, p-value = 0.0668), but a Jonckheere test for ordered alternatives is highly insignificant ( $J_{22,28,23} = -0.15$ , p-value = 0.5625). We investigate this further with one-sided pairwise Wilcoxon rank sum tests, the results for which we report in Table 2.

One part of our ordered hypothesis is borne out. Dictators in the *Monitor* treatment give significantly more of the endowment to the recipient than dictators in the *Video* treatment. The average offers in the *Monitor* and *Video* treatments are \$11.78 and \$8.14, respectively, which is statistically significant in the one-sided rank sum test. The offers in the *Video* treatment are

<sup>&</sup>lt;sup>2</sup> We omit three observations in the *Monitor* treatment for which the recipient left before the dictator had made a final decision. Incidentally, the three offers are \$0, \$5, and \$10.

<sup>&</sup>lt;sup>3</sup> We compare our results to one treatment in each of HMS and FHSS. FHSS report their findings for dictators dividing \$10 on page 366. HMS report their replication of that FHSS treatment on page 654.



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**Figure 2.** Distribution of Offers. Some dictators gifted the entire amount and the modal outcome was a 50/50 split. [Color figure can be viewed at wileyonlinelibrary.com]

obviously not significantly greater than the offers in the *No Video* treatment since the average offer in the *Video* treatment is lower than that of the *No Video* treatment. Recall the average offer in the *No Video* treatment is \$12.27, which is also greater than the average in the *Monitor* treatment. Ex

Ha: No Video > FHSS+HMS  $_{Video}$  >  $_{FHSS+HMS}$ Monitor > FHSS+HMS Wilcoxon test  $W_{52.22} = 928$  $W_{52,28} = 884$  $W_{52.23} = 941$ p-value < 0.00010.0582 < 0.0001 Ha: Video ≠ FHSS+HMS  $Monitor \neq FHSS+HMS$ No Video  $\neq$  FHSS+HMS  $D_{52,22} = 0.5105$  $D_{52,28} = 0.3022$  $D_{52,23} = 0.5569$ Kolmogorov-Smirnov test 0.0499 0.0004 *p*-value 0.0001

**Table 1.** Comparisons with FHSS and HMS Offers

post, we identified another difference between the No Video and the Video and Monitor treatments: the extra consent form for photographic consent and release. Perhaps there is an unanticipated and implicit exchange at play here. Subjects who fill out an extra page of a consent form for the Video treatment may feel more entitled to keep money in exchange for the release of their image into the public domain. The Monitor treatment nearly fully offsets that difference between the No Video and Video treatments.

It is plausible that the social-distance phenomenon is still operating here, ceteris paribus, but the camera is adding an additional effect not explained by social distance. To explore this more fully by controlling for other variables, we estimate a Tobit model of the offers with both upper-tail and lower-tail censoring. Table 3 summarizes the model and reports its estimates. Marginal effects are reported in Table 4.

Consistent with the nonparametric statistics above, the Video treatment decreases the amount that dictators offer, and thus we fail to reject the null hypothesis in favor of the alternative that video recording increases the amount that dictators give. The estimated marginal effect is -\$3.93. Most of this decrease is offset when the monitor is added to the video recording procedures (p-value = 0.0241). The marginal effect of including a monitor for the subject's group members to watch is \$3.67.

The gender of the dictator and the day the subject participated in the experiment are both insignificant (p-values = 0.5461 and 0.1008, respectively). Other studies, such as Eckel and Grossman (1998), find that female dictators are more generous than male dictators when placed in anonymous laboratory procedures. One indication of just how sensitive this experiment is to the procedures is that the recruiter had a significant impact on the offer that the dictator made (p-value = 0.0002). Being recruited by the female recruiter (RA) reduced the amount offered by the dictator by a nontrivial \$6.37 (in the Video treatment), despite the fact that neither RA nor RB consciously selected for any characteristic. Moreover, it is worth repeating that the recruiters are not involved in the decision-making process of the dictator. RA and RB merely invite the mall shoppers to participate and then escort the subject to the main table, where the managers administered the consent forms for the experiment. (At this point, the subjects still have no knowledge of

Table 2. Pairwise Wilcoxon Rank-Sum Tests Between Treatments with Ordering No Video-< Video < Monitor for Alternative Hypotheses

$W_{\rm n,m}$ (p-value)	Video	Monitor
No Video Video	413 (0.9798)	258.5 (0.5488) 414.5 (0.0400)

**Table 3.** Tobit Model of Offers (Left Censored at 0; Right Censored at 20)

Variable	Description	Estimate	SE	p-Value
Constant		16.16	2.44	< 0.0001
RA	Subjects recruited by $RA = 1$ ; subjects recruited by $RB = 0$ .	-8.81	2.38	0.0002
IA	Decision administered by $IA = 1$ ; decision administered by $IB = 0$ .	-7.33	3.74	0.0500
$RA \times IA$	Interaction	1.90	7.71	0.8055
Day2	Expt. conducted on day $2 = 1$ ; expt. conducted on day $1 = 0$ .	4.02	2.45	0.1008
Video	Video and Monitor treatments = 1; No Video treatment = 0.	-5.36	2.51	0.9661 <sup>a</sup>
Monitor	Monitor treatment $=1$ ; Video and No Video $= 0$ .	4.95	2.50	0.0241 <sup>a</sup>
Female <sup>b</sup>	Female dictator = 1; male dictator = $0$ .	1.24	2.05	0.5461

N = 73.

their decision task.) Instructor IA or IB then escorts the subjects to the specific spot where the formal experiment is administered. This procedural detail also has a significant effect on the offers of the dictator. IA is significant (p-value = 0.0500) and has an estimated marginal effect of -\$5.45 (in the Video treatment).

Observable characteristics of the receivers, such as gender, may have influenced the dictators.<sup>4</sup> Saad and Gill (2001) find that both men and women give more money to female receivers on average. Thunström, Cherry, and McEvoy (2016) find that dictators want to find out more information about the receiver to evaluate the "deservingness" of the receiver. We observed that most dictators in our experiment chose to look at the receiver, which reduced the social distance between them and adds context to the decision.

We also collected data on the mall shoppers we solicited to participate in the experiment. Using these data, we estimate a Probit model to assess what variables, if any, affect the probability

Table 4. Estimated Marginal Effects for Tobit Model

Baseline	Additional Variable	Marginal	Standard
	Evaluated at 1	Effect	Error <sup>a</sup>
All variables evaluated at 0 (No Video treatment)	Video	-\$3.93	\$1.84
All variables evaluated at 0 (No Video treatment)	Day2	\$2.32	\$1.37
Video = 1; all others evaluated at 0.	Monitor	\$3.67	\$1.79
Video = 1; all others evaluated at 0.	RA	-\$6.37	\$1.61
Video = 1; all others evaluated at 0.	IA	-\$5.45	\$2.60

<sup>&</sup>lt;sup>a</sup>Computed using the delta method.

<sup>&</sup>lt;sup>a</sup>One-side test; two-sided otherwise.

<sup>&</sup>lt;sup>b</sup>We did not collect data on the gender of the recipient in the No Video treatment.

<sup>&</sup>lt;sup>4</sup> We thank a referee and discussants at a presentation of this article at the Iowa State experimental economics working group for this point.

Variable	Description	Estimate	SE	p-Value
Constant		-1.11	0.32	0.0004
Female	Gender of the person in the group of shoppers who was recruited.	-0.29	0.14	0.0423
GroupSize	Total number of people in the group of the person who was recruited ( $min = 2$ ).	0.13	0.12	0.2976
RA	Subject recruited by $RA = 1$ ; subject recruited by $RB = 0$ .	-0.07	0.15	0.6478
Day2	Experiment conducted on day $2 = 1$ ; experiment conducted on day $1 = 0$ .	0.17	0.15	0.2669

Table 5. Probit Model of Shopper Agreeing to Participate in the Experiment

N = 431.

of a shopper agreeing to participate. This is particularly interesting in light of the recruiter effect found above. Are shoppers more or less likely to accept the invitation to participate from RA, the recruiter who appears to have the effect of reducing the offers of the dictators? The binary left-hand variable equals 1 if the shopper agreed to participate and 0 otherwise. Table 5 reports the estimates and Table 6 the marginal effects.

The only significant variable is Female (p-value = 0.0423). At the average group size of 2.22, a female mall shopper is 7.6 percentage points less likely to accept the invitation than a male respondent. Notably, RA has no significant effect on the probability that a shopper decides to participate (p-value = 0.6478), which indicates that RA is *not* differentially recruiting people for the experiment relative to RB, even though dictators recruited by RA offer significantly less to their counterparts. The insignificant estimate of Day2 indicates that the success rate of the recruiters does not change with a day's worth of experience (p-value = 0.2669).

## 4. Discussion and Conclusion

Previous findings from dictator games indicate that dictators are less generous when there is more social distance between them and society. In our experiment, dictators are more generous because they are in closer contact with other people when they make their decision. This result

Table 6. Estimated Marginal Effects for Probit Model

Baseline	Additional Variable Evaluated at 1	Marginal Effect	Standard Error
GroupSize = 2.22 (mean), all other variables equal 0.	Female	-0.076	0.038
GroupSize = 2.22 (mean), all other variables equal 0.	RA	-0.017	0.038
GroupSize = 2.22 (mean), all other variables equal 0.	Day2	0.043	0.038
	Nondichotomous variable		
GroupSize = 2.22 (mean), all other variables equal 0.	GroupSize	0.032	0.031

supports the growing evidence that the social context of the decision task matters. Surprisingly, we find that the dictators in front of a video camera were less generous than those in the *No Video* treatment. More research is needed to determine whether this finding is explained by the video release form that dictators sign as part of the procedure.

The video record and the impromptu responses of the dictators while on camera offer a look into the subjects' perception of this task. A sample of the videos can be viewed at http://www.youtube.com/watch?v = vZHN8xyp6Y0. We report all transcribed responses in Appendix 1. Several of the dictators who give nothing justify their decision with the rhetorical question "Why should I give him [or her] anything?" Others seek approval from the experimenter by asking whether offering nothing is a "good" or "wrong" response. Noticeably, no subject who gives \$10 or more reports any guilt regarding their decision. These responses also reveal a wide divergence in the perception of the property right over the money. Whereas one dictator who gives nothing asks, "Why you gonna give him any money at all? He has to earn it," another has the completely opposite perception: "Seeing as it's not really my money, you can give all of it to her." Participants who volunteered information about their perception of ownership corroborate the results of Korenok, Millner, and Razzolini (2016) who find that dictators who earn the endowment have stronger feelings of ownership which results in giving less to the recipients.

Several dictators who send \$10 use the word "half" or "fair," which suggests importing a heuristic or rule. One subject who gave half added, "I'm a nice guy." Dictators might feel uncomfortable being watched by others. Dana, Cain, and Dawes (2006) find that dictators are willing to take \$9 to avoid playing a \$10 dictator game in which a recipient would know that a dictator could have given them money. In our experiment, the receiver had no knowledge of the task, but future research can determine if dictators would have given up money to avoid being observed by peers or the experimenter.

Finally, many subjects are just plain baffled by the decision task. One woman exclaimed as she returned to her husband at the monitor station, "This is *bizarre*!" The dictator game is bizarre for the participants because we, following the convention in conducting such experiments, intentionally stripped the decision of a specific social context, and people do not normally make interdependent decisions in a contextual vacuum. While people do not regularly allocate windfall money to random shoppers in a mall, there is no reason to assume they would not be generous to a stranger in the familiar context of a charity or that they would not compete against that stranger in a contest. The large symmetric variance in the offers across treatments is perhaps the result of the different social contexts that participants in each offer category personally imposed on the experiment, which prompted them to behave generously, equitably, or stingily toward a stranger. If the dictator game is a simple, straightforward game for the economists who study it, it is not so clear-cut for the average shopper in a mall. (Watch for the bewildered looks on the faces of the participants in the YouTube video.) Social context matters, for if the experimenter does not provide one, the participant will.

## Appendix 1

For a look into the subjects' perceptions of this task, we report here a transcription of the impromptu responses of the dictators while on camera, broken down by how much they offer to the other person. The left two columns contain the dictator responses for offers less than \$10, the middle two columns for offers of \$9 and \$10, and the right two columns for offers greater than \$10.

Table A1.

Comment	Offer	Comment	Offer	Comment	Offer
"Why you gonna give him any money at all? He has to earn it. Zero." "That's the game? So I get this money just for that?"	0	"How much of that?"  "That much [points out random amount]."	9	"[looks around confused] umm about 13 for them."	13
"Zero. [laughs]" "Is that a good answer? Yeah."	0	"Umm 10? Split it in half?"	10	"That person over there? I'd say 15."	15
"I'll take it all. Why do I give her any?" "All right. Here you go." "That's all? Are you serious? [laughs]"	0	"Half." "Yeah. That's it?"	10	"How much? 15? [shrugs] OK, thank you."	15
"Why would I send any of it?" "Nothing. Send her nothing!" "That's it?"	0	"[shrugs] UmmI would say half and half. Sounds fair enough."	10	"How much of that 20 you should take over there and the rest is mine? How about 8, 8? No, give him 15; the rest is fine."	15
"Give it to me." "Yes."	0	"The person in the purple? Uh I'll split it with her. Give her 10."	10	"Really? 15."	15
"Do I have to, like, say the reasons?" "I wouldn't want them to take any of it. I'll take 20."	0	"Uh [shakes head] 10."	10	"[shrugs] 20 bucks." "20. That's it?"	20
"Why?" "And why should I give to him \$20? [shakes her head]." [laughs, consults mother and father] "OK, nothing."	0	"I don't know. Whatever. \$10."	10	"How much of the \$20 you should take over to that person? I don't know; the whole 20. I don't care."	20
"I'll just take it all."	0	"How much do you have there? You have \$20 there and you're wondering how much I think you should give to him, and how much you should give to me? 10 to him, 10 to me." "Might be a little tricky. There's 10 here. So I give this to you? [to camera man]."	10	"[shrugs] All of it?" "All of it."	20
"\$1." "Is that wrong? [starts to follow] Is that it?"	1	"Umm, half of it?" "That's it?"	10	"You can give it to them if you want." "Yeah, sure."	20
"What do you mean?" "One. That it?"	1	"Which one?"  "Oh, the lady on the square.  How much, 20? Ones? We gonna go to a strip club with that afterwards?  Half—give her half."	10	"It's up to you. It's not my money."  "It's my money?"  "[laughs] That's pretty funny. Seeing as it's not really my money you can give all of it to her."	20
"So you're just gonna take it to your colleague and give it to that guy? Give him \$1."	1	"10 and 10. I think that's fair."	10	"Umm Give her all of it, I guess."	20
	1		10		20

Table A1. (Continued)

Comment	Offer	Comment	Offer	Comment	Offer
"Of the \$20? Umm, a dollar?" "Oh, no, giving them the dollar."		"Half [shrugs]. That's it? You're gonna give that to him?"		"OK. Which one?" "The white shirt? Give him all of it."	
"\$3" "Yeah."	3	"5 bucks the same thing" "Oh for myself? I'll give him the even amount I have." "Yeah: 10 and 10."	10	"Umm. All of it?" "Yeah, thanks."	20
"Half. Actually I'll take 15; he'll take 5."	5	"10?" "Yeah."	10	"Give it to them."  "Yeah! [jumps up and down over to friends] I just gave that guy money!"	20
"5?" "Yeah."	5	"What person?"  "Well, he looks kind of hungry so I'll say 10 bucks each?"  "Yeah. That's it?"	10	"To give to her?" "Well, give her 20 'cause I've already got a 5."	20
		"How much should you take over to her?" "Half?"	10	"All of it [shrugs]"	20
		"Why do I have to give him money?" "I don't know? 10 bucks?" "Really?"	10		
		"Half, half of whatever's there. I'm a nice guy. That's it? Really?"	10		
		"Umm Half?" "I'll give 'em 10."	10 10		

## Appendix 2

Experimental instructions

Pitch for dictator:

Excuse me. I'm part of a research team at Chapman University. We've randomly selected you to participate in our study. It will take less than five minutes and we'll give you \$5 for your time. Are you interested?

Instructions for dictator:

My colleague Matt has randomly selected another person over there. How much of this \$20 should we take to the person with Matt? The rest is yours.

Pitch for recipient:

Excuse me. I'm part of a research team at Chapman University. We've randomly selected you to participate in our study. All you have to do is stand here with me for a minute or two and you may receive cash. Are you interested?

Instructions for recipient:

Just stand here with me and one of my colleagues will be over in just a minute.

### Acknowledgments

We gratefully acknowledge the financial support of the International Foundation for Research in Experimental Economics, Chapman University, and NSF grant SES 0833310. We also thank Jennifer Cunningham, Kyle Bjordahl, Peter Abbate, Alexander Bogart, Michael Gamboa, and Stephen Pollard for assistance, and the MainPlace Shopping Mall in Santa Ana, CA for their hospitality and permission to conduct this

experiment on their premises. We thank the editor, an anonymous reviewer, Larry Samuelson, and participants at the Iowa State experimental economics working group for comments that have improved the article.

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