WORKING PAPERS IN ECONOMICS

No. 3/16

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YOU'LL NEVER WALK ALONE. AN EXPERIMENTAL STUDY ON RECEIVING MONEY

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You´ll Never Walk Alone

An Experimental Study on Receiving Money

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Version: 26 April 2016

Abstract

Is more money better than less? Not always. It depends on the situation. If more money for oneself means less money for a stranger, the majority of participants in dictator games choose less money for themselves. But if they really are alone - and thus do not have to share with a stranger - will they always choose to receive more money instead of less? Here, I report results from seven experiments. On average, one-third of a total of 3,351 participants chose to receive less money instead of more. In one experiment even a majority choose to receive less money. In four of the experiments the participants also faced the corresponding dictator experiment where there is an explicit anonymous recipient of the foregone money. There is a high positive correlation between "giving" as a dictator and when alone. This result opens up possibilities for broader interpretations that go beyond social the preference interpretation of giving in the dictator game.

JEL codes: D01, D03, D63

Keywords: More or less money, Dictator game, Distributional and non-distributional norms

Acknowledgements: I thank Daniel Chen, Mathias Ekström, Astrid Grasdal, Hans Hvide, Shelly Lundberg, Alf Erling Risa, David Skarbak, Emilie Skarbak, Eirik A. Strømland, Erik Sørensen, Gaute Torsvik, Bertil Tungodden, and seminar and conference participants at University of Bergen, University of Stavanger, the Nordic Conference in Behavioural and Experimental Economics 2015, University of Tampere, and The Annual Meeting of the Norwegian Association of Economists 2015, University of Bergen for helpful discussions and insightful comments. Thanks also to Olav Innselset, Alf Erling Risa, and Hans Martin Straume for helping to run class room experiments with the assistance of Eirik A. Strømland and Jørgen Rostrup. Finally, thanks to Småforsk for financial support.

> Man … desires, not only praise, but praiseworthiness; or to be that thing which, though it should be praised by nobody, is, however, the natural and proper object of praise. He dreads, not only blame, but blame-worthiness; or to be that thing which, though it should be blamed by nobody, is, however, the natural and proper object of blame.
>
> Adam Smith (1759, 136-137) *The Theory of Moral Sentiments*

1 Introduction

A surprising result from one experiment is the point of departure for this paper. The participants were asked to choose between *receiving* more money or less. The experiment was double-blinded; neither participants nor experimenters could identify the choices of specific participants. I expected that all participants would choose to receive more money. To my surprise, a substantial minority, 28.6% out of 91 participants, chose to receive less money. In hindsight, maybe I should not have been surprised since in some situations outside the lab, people chose less instead of more money. For example, customers return to a shop if they discover that the cashier forgot to charge them for one item. People routinely take found wallets to the lost and found, and they do likewise in field experiments (Stoop 2014).

One possible explanation for choosing less money instead of more is that people care about other people's expectations in terms of norms.[1] By choosing less instead of more money, participants may follow norms like: "Do not accept a gift or money from strangers (the experimenter in this situation)," "You need to deserve the money to accept it from a stranger," or "Do not be greedy." Another possible explanation is that the participants have distributional

[1] There is a large and growing literature explaining lab results by participants following norms in addition to payoffs: Levitt and List 2007, Sugden 1986, Cappelen *et. al*. 2007, Andreoni and Bernheim 2009, Smith 2005, and Smith and Wilson 2014.

concern even though there is no explicit mention of what happens with the foregone money. The participants may perceive that they are playing a dictator game with the experimenter. By accepting less money, they share money with the experimenter.

The purpose of this paper is threefold. First, I investigate whether the result that a considerable minority of lab participants chooses to receive less money instead of more holds in other lab situations. The situations vary in the following three ways: (1) The experience of participating in an experiment may change the underlying norm and make it more appropriate to accept money in experimental situations. (2) Strengthening the participants' sense of entitlement to the money to be received could also make it more acceptable to keep the money. (3) According to the social heuristics hypothesis, deliberations before the actual choice of more or less money should tilt the decision in the direction of accepting more money (Rand *et. al*. 2014). The overall result in these three situations is that a considerable minority of the participants in the experiments chose to receive less money instead of more. In one of the experiment even a majority (64.5 % of 200 participants) chose to receive less money.

Second, to get more insight, I also design an experiment where the participants explain their choices of more or less money after they choose. Among those 214 participants that chose less money instead of more and explained there choice, 42 % explained their choice with a norm, such as "I did not do this for money". A total of 28 % explained their choice with distributional concerns like "The rest can go to charity". Very few mentioned the experimenter as the receiver of the forgone money (2.8 %).

Third, this result of the more-less choice may call into question the social preference interpretation of giving in the dictator games. Participants in dictator game experiments

frequently choose to give money to their anonymous partner (Engel 2011). Social preference theories interpret dictator giving as a preference for equality in payoff or following a norm for equity (Levine 1998, Fehr and Schmidt 1999, Bolton and Ockenfels 2000, Charness and Rabin 2002, Falk and Fischbacher 2006, and Cappelen *et al.* 2007). One key assumption in this interpretation is that the distributional concern is restricted to a reference group consisting of the dictator and an anonymous recipient (Fehr and Schmidt 1999, 821-22, Bolton and Ockenfels 2000, 171). Dictators who prefer equality are willing to give up some money to move towards more equitable distributions in the reference group. In the more-or-less money choice, the reference group is reduced to the chooser only, as there is no explicit reference to a specific recipient for the foregone money. Consequently, there can be no explicit distributional concern in the more-or-less choice. Hence if distributional concern is the sole explanation for giving in the dictator game, giving as a dictator and giving when alone should be uncorrelated. To investigate this further, in four of the experiments presented in this paper, the participants faced both a dictator game and the corresponding more or less money choice. The overall picture is that there is a high and positive correlation between giving as a dictator and giving alone.

2 The "surprising" experiment

The experiments were performed in an auditorium in a class situation, like the first dictator game reported in Kahneman *et. al.* (1986).[2] They were double-blinded; neither

[2]Details of the experimental procedures are provided in Appendix A.

participants nor experimenters could identify choices of specific participants.[3] The participants faced two decisions. In the dictator game, each participant was asked to split 500 kroner (around 75 US dollars at that time) between herself and an anonymous participant, either an even split (250 kroner for each) or an uneven split (450 kroner for herself and 50 kroner for the other). In the more or less decision, the choice was to receive more or less money: 250 kroner or 450 kroner. The more or less question was explained as follows to the participants:

> Two persons in the auditorium will be randomly drawn to receive money. If you are one of those two persons, you have to decide whether you will receive 250 kroner or 450 kroner. You can only mark one of the options. If you mark two or none, you will receive 0 kroner. Mark your choice:
>
> I will accept 450 kroner, thank you.
>
> I will accept 250 kroner, thank you.

The monetary opportunity cost was the same in both choices. The difference between the two decisions was that there was no explicit reference to the recipient of the foregone money in the more or less choice. I performed two experiments, which are described as follows:

[3]The motivation behind the experiments was to rule out that participants prefer less money for themselves as an explanation of giving in the dictator game.

Experiment 1 (N=91). The participants were students in a first-semester class in economics at the University of Bergen. They answered both the dictator and the more-or-less question in randomized order.

Experiment 2 (N=151). The participants were students in a first-semester course in a business and administration class at the Norwegian School of Business (BI) in Bergen. The class was randomized into two groups, one-half addressing the more-or-less question, and the other half addressing the dictator question.[4]

Table 1 reports the results from the two experiments. Almost one-third chose less money instead of more (31.9% out of 166 participants).[5] Out of 167 participants, 70.1% of the dictators chose an even split. This result parallels the result of the dictator game in Kahneman *et al.* 1986 (S291), where 76% out of 161 chose an even distribution ($10 to each) over an uneven distribution ($18 to the dictator and $2 to the other participant).

[4] I decided to run Experiment 2 after I observed the results from Experiment 1. I believed that the participants in Experiment 1 may have been confused by the two questions on their decision sheet.

[5] In Experiment 1, the participants addressed both questions in random order; there is no significant difference in the order (Pearson's chi2 test, p=0.320). There was no statistical difference between experiments 1 and 2 (p=0.307) or between male and female students (p=0.217). These results are also confirmed by an OLS regression reported in the supplementary section.

Table 1 Shares of participants that an even distribution as dictators and less money instead of more in experiments 1 and 2.

Experiment:	Dictator chose an even distribution	Chose less instead of more money	# of Participants
1	0.648	0.286	91
2	0.763	-	76
2	-	0.360	75
All	0.701	0.319	242

Note: The dictator choice was an even distribution (250 kroner, 250 kroner) versus an uneven distribution (450 kroner, 50 kroner). The more or less question presented participants with the choice of receiving 250 or 450 kroner.

3 Experience

Previous experience both as participants in experiments and as students on campus may change the underlying norms guiding behavior in experiments. Participants with experience in experiments may find it more appropriate to accept money in an experimental situation. Students with more semesters on campus may have talked to fellow students about participating in experiments and find it more acceptable to accept money in this situation. To investigate this further, I ran the same experiments in two different second-semester classes.

Experiment 3 (N=78). The participants are undergraduate students in a second-semester class in economics and business administration at Bergen University City College.

Experiment 4 (N=104). The participants are undergraduate students in a second-semester economics class at the University of Bergen. To let them acquire more experience in participating in experiments, I conducted an additional experiment (not reported here) in the same class 14 days *before* Experiment 4.

In both experiments, the subjects also stated the number of experiments that they have participated in as well as the numbers of semesters as a student. Otherwise, the experimental

procedure is similar to experiments 1 and 2. For more detail, see the appendix. Table 2 shows that there are variations in reported experiences regarding participating in experiments. Almost half of them (49.2%) report they have never participated in such an experiment before, and 29.2% report they have participated twice or more.

Overall, 30.4% of 181 participants choose less money instead of more. Neither experience as participants in experiments nor numbers of semester as students seem to affect the tendency to accept less money instead of more. This is also confirmed by an OLS regression controlling for gender, numbers of semesters as students, and whether the student is in an economics class (reported in the supplementary section).

In the dictator choice, 61.9% chose the even distribution, which is similar to the result in Kahneman *et al.* (1986). More experience as participants in experiments seems to reduce the tendency to split evenly. This result is also confirmed by an OLS regression reported in the supplementary section.

Table 2 Shares of participants that chose less in the more-or-less question and chose an even distribution in the dictator game for different experiences.

		Have you participated in such experiments before?			
	All	No, never	Yes, 1 time	Yes, 2 times	Yes, 3 or more times
Less instead of more	0.304	0.337	0.333	0.189	0.312
Even distribution	0.619	0.786	0.564	0.378	0.375
# of subjects	181	89	39	37	16

Note: The dictator choice was an even distribution (250 kroner, 250 kroner) versus an uneven distribution (450 kroner, 50 kroner). The more or less question offered the participants the choice of receiving 250 or 450 kroner.

4 Strengthening entitlements

In experiments 1–4 reported here, the participants were in a classroom situation and did not actively choose to participate in the experiment.[6] The next experiment differs in two ways. First, the participants volunteer for the experiment with a promised payment of 100 kroner for showing up on time and an additional payment depending on their choices in the experiment. By inviting participants with a promise to pay, participants may infer that the experimenter believes it is appropriate for the participants to leave the lab with money. Second, to create a sense of entitlement concerning the money, the more-or-less question was framed as keeping your money. To strengthen the sense of entitlement even more, the participants addressed the more or less money question at the end of the session, after they had completed a job for the experimenter by participating in a repeated prisoner's dilemma experiment (not reported here). Both volunteering to participate in an experiment with a promised payment and strengthening the sense of entitlement to money may make it seem more appropriate to keep money in the more or less question.

Experiment 5 (N=200) was performed in a lab at the University of Bergen. The participants were recruited via email from an undergraduate student population of social science, natural science, and humanities faculties at the University of Bergen. We ran 20 sessions with 10 participants in each session. The sessions lasted around 35 minutes. The whole experiment was computerized and double-blinded. The average payment was 203 kroner.

[6] They could opt out of the experiment by not handing in their sheet or by delivering empty sheets. One participant in Experiment 3 delivered an empty sheet.

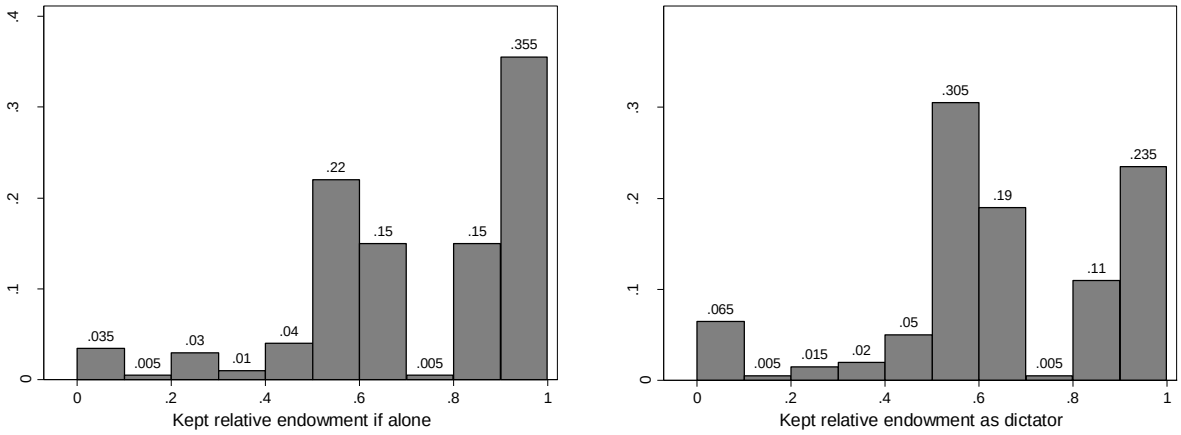
The participants were informed that one of 10 participants in their session was drawn to win 500 kroner. The more or less money question was framed as how much you want to *keep* for yourself. The participants also faced a dictator choice framed as *giving* money to an anonymous recipient in the Norwegian population. The dictator question came after the more or less question. More details are provided in Appendix A.

A considerable majority of the participants (64.5%) chose to keep less than the endowment of 500 kroner. On average, the participants kept 71.3% of the endowment. Participants reporting they have participated in an experiment before kept, on average, 9.5% more of the endowment than those without experience (statistically significant, Mann-Whitney rank sum test p=0.002).[7] Hence, volunteered participators with experience tend to accept more money than inexperienced volunteered participators.

One concern about the result from the more or less question is that it is framed as conditional on winning a draw. But the dictator game is also framed the same way. The results from the dictator game are comparable with a recent meta-study of results of dictator games (Engel 2011, 589). Among the 200 participants, 76.5% chose to give as dictators (compared to an average of 62.9% in the meta-study), 30.5% gave some money but less than half (compared with 34.1%), 30.5% chose an even distribution (compared with 16.1%), and 6.5% chose to give all (compared to 5.4%).

[7] This is also confirmed in an OLS regression which is reported in the supplementary section.

Figure 1 Distribution of keeping money in experiment 5, both alone and as dictator.



5 Explaining their choices

To develop a greater understanding of why some participants choose less money instead of more, I conducted a web-based experiment where the participants first chose between receiving more or less money and afterwards explained their choice. I used the Norwegian Citizen Panel, a web-based survey of a cross-section of the Norwegian population aged 18 to 76 years old consisting of around 6,000 participants (Ivarsflaten *et. al.* 2015). The participants are not paid, but each round (twice a year), one of them is drawn to win a gift card with a face value of 25,000 NOK. On average, they spent 20 minutes to answer all the questions in the survey.

Experiment 6 was conducted March–April 2015. A total of 1,050 participants, a randomized subsample of the panel, were asked to choose between receiving 1,000 kroner or 1,800 kroner on the condition that they won an extra monetary prize (See Appendix A). A total of 31 participants (2.95%) did not answer.

Among those 1,019 who answered the question, a considerable minority of 230 participants (22.6%) chose less money. The majority (789 participants; 77.4%) chose more money. There were no significant differences between gender, age, and education, see the OLS regression reported in supplementary section.

On the next screen, the participants were reminded about their choice and asked to briefly state why they made their choice (See Appendix A). The participants could not go back to the previous screen and change their decision. Among those chose less money, 214 answered (93.0%), comparable to 724 (92.8%) among those who chose more money.[8] Among those who chose less money, 26 (12.1%) subjects' answers were classified as misunderstandings. One example is: "Thought that there was a greater chance to receive 1,000 kroner; most of the others surely ticked 1,800". I further split the explanations according to norms and direct distributional consequences for others.

Among those who chose *less* money, 90 subjects (42.1%) stated a norm as an explanation. Examples are: "I did not do this for money", "This is voluntary, and I have not been promised something for participating. Money is not everything in the world", "I am not greedy!", and "It is more than money that matters, even though one is dependent on money". However, among those choosing *more* money, 33 participants (4.6%) also answered that they followed a norm: "I absolutely deserve it, as I have been willing to participate in the Norwegian Citizen Panel!", "Modesty is not a virtue in this situation", "Not a saint—need money", and "I will not pretend. It doesn't mean anything to my personal finances, but why should I throw 800 kroner away if I win? Eight hundred kroner is four bottles of good wine!".

[8] I also excluded 11 subjects from further analyses to guarantee their anonymity. All of them chose more money.

Among those who chose *less* money, 56 (26.1%) stated that the rest (800 kroner) could be redistributed: "(T)he rest can go to charity","1,000 kroner is also good, and the remaining 800 kroner can surely be used for something good", "Let the rest go to the poor in the world!", and "Then the Citizen Panel can use (the money) for other things".[9] But also among those who chose *more* money, 70 subjects (10.6%) stated that they would share or give away the money to others, like charities and their family.

Among those who chose more money, a considerable majority (81%) simply stated that more money is better. Examples includes the following: "Highest amount", "Because 1,800 kroner is more than 1,000 kroner!!!!", "A stupid question, really. Is it not natural to say yes to the highest one?", and "Have around 800 reasons for that".

6 Reflection and experience

Psychologists focus on decision-making within a dual cognitive process (Kahneman 2009, 20–21). System 1 operates intuitively, automatically, and fast. System 2 demands more reflection, deliberation, and time. Rand *et al.* (2014) use this approach to form the social heuristics hypothesis that social norms are internalized as a type of automatic System 1 process. People who develop their intuitions draw on daily life experiences involving repetitions of cooperative interactions with rewards if behaving cooperatively and punishment if not. The evolution of this intuition makes cooperation in one's long-term interest. In one-shot and anonymous social dilemma experiments, participants carry with them their intuitions already evolved outside the

[9] One possible interpretation of choosing less instead of more money is that participants perceived the situation as playing a dictator game with the experimenter. However, only six (2.8%) mentioned research or researchers as receivers of the foregone money.

lab, and they continue to act cooperatively in the lab. But pressing lab participants to think slowly and deliberately would tilt their choices toward more selfishness. The experimental results are mixed; see Rand *et al.* (2014) and Tinghög *et al.* (2013).

In line with this social heuristics hypothesis, reflection should *decrease* the tendency to choose less instead of more money. Furthermore, participants that previously have faced the *same* choice should also tend to increase their tendency to choose more money. To test these hypotheses, I ran another experiment on the Norwegian Citizen Panel.

Experiment 7 was performed in November–December 2015, six months after Experiment 6. In the reflection conditions, the participants were asked to explain their choices *before* they chose (question B in the appendix). In the next screen, they made their more or less choice without the possibility of returning to the previous screen. In the no-reflection conditions, the participants addressed the more-or-less question without explaining their choice. To capture the effect of experience, the sample was split into experienced participants that answered the two more-or-less questions six months earlier (Experiment 6) and inexperienced participants that did not. The design and frequencies of choosing less instead of more money are given in Table 3.

Table 3 Frequencies choosing less instead of more money in four treatments.

TREATMENTS:	March–April 2015		November–December 2015	
Experience & Reflection (n=355)	0.235	Explained why	Explained why	0.327
Experience & No reflection (n=341)	0.225	Explained why	No	0.246
Inexperience & Reflection (n=589)	No	No	Explained why	0.297
Inexperience & No reflection (n=576)	No	No	No	0.292
OVERALL (n=1,861)				0.292

Note: The table reports the frequencies of choosing less money for more for four random subsamples of the Norwegian Citizen Panel. The phrase "Explained why" means that the participants explained their choice of more or less money. "No" means that the participants did not face the more or less money question or had to explained their choice of more or less money. In the experience conditions participants that did not answered the more or less question in the March-April 2015 round are excluded, 13 participants in the Reflection condition and 6 participants in the No reflection condition.

A total of 1,945 participants in the Norwegian Citizen Panel were asked to choose between receiving more or less money. Overall, 84 subjects (4.32%) did not answer this question.[10] As expected, the participants in the reflection conditions used, on average, considerably less time addressing the more-or-less question than in the non-reflection conditions, 13.3 respectively, 25.4 seconds (t-test, $p<0.001$).[11]

Almost one-third of the participants chose less instead of more money, 29.2% of a total of 1,861. The overall result is at odds with the social heuristics hypothesis, as reflection combined with experience seems to increase the tendency to choose less instead of more money, a 7.9%

[10]There were relatively more non-repliers in the reflection conditions than without reflection (5.60% versus 2.96%, statistically different, Pearson chi2, p=0.04). Among the non-repliers there are subjects that never faced the more-or-less question as they opt out of the survey before this question. Twenty subjects neither answered the question ahead of the more or less question nor any questions after.

[11]The participants in the different conditions used, on average, (standard deviation in parentheses): Experience & Reflection, 12 seconds (7.9); Experience & No reflection, 22.3 seconds (10.3); Inexperience & Reflection, 13.1 seconds (8.4); and Inexperience & No reflection, 28 seconds (27.1). I do not have data on how much time they used to explain their choice in the reflection conditions.

increase according to the OLS regression in column (2) in Table 4. Splitting the experienced sample into two subsamples conditioned on how they answered the question six months before, we see in Table 4 a 9.3% increase in the tendency to choose less instead of more money for those participants that chose more money 6 months previously (column 3). The effect of reflection among the experienced participants can also be explained by an experimental demand effect. Participants being asked to explain their choice in the same question as in the previous round may wonder what the experimenter expects of them and may respond by accepting less instead of more money.

Table 4: Probability of choosing less (Experiment 7), OLS regressions

	(1)	(2)	(3)
Reflection	0.00545	0.00260	0.00279
	(0.0266)	(0.0266)	(0.0257)
Experience	-0.0453	-0.0487	
	(0.0310)	(0.0310)	
Refl.*Experience	0.0750*	0.0789*	
	(0.0435)	(0.0436)	
More previous			-0.160***
			(0.0328)
Refl. * More			0.0930**
			(0.0458)
Less previous			0.318***
			(0.0525)
Refl. * Less			0.0414
			(0.0742)
Controls	No	Yes	Yes
Constant	0.292***	0.251***	0.239***
	(0.0189)	(0.0509)	(0.0492)
Observations	1861	1861	1861
R^2	0.003	0.012	0.077

Note: Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Controls are gender, age, and round of recruit in the Panel.

7 On the interpretation of giving in dictator games

Participants in dictator game experiments frequently choose to give money to their anonymous partner (Engel 2011). Social preference theories interpret dictator giving as a preference for equality in payoff. Participants care about their own monetary payoff as well as payoffs allocated to other persons (Levine 1998, Fehr and Schmidt 1999, Bolton and Ockenfels

2000, Charness and Rabin 2002, and Falk and Fischbacher 2006). The interpretation of dictator giving as a social preference for inequalities is an ongoing discussion in the literature (List 2007, Levitt and List 2007, List 2009, Berg and Gigerenzer 2010, Binmore and Shaked 2010, Fehr and Schmidt 2010, Eckel and Gintis 2010, Wilson 2010, Smith and Wilson 2015, Kimbrough and Ostroknutov 2015).

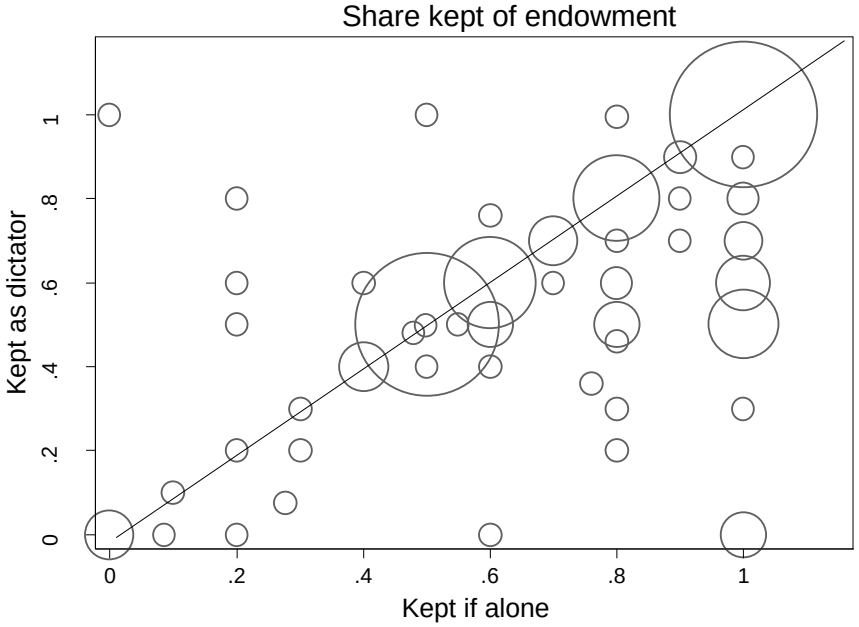
In the more or less money choice, the reference group - following the logic behind the interpretation in the social preference literature - is reduced to the chooser only, as there is no explicit reference to a specific recipient for the foregone money. Consequently, there can be no explicit distributional concern in this situation. Without such distributional concern and no other norms constraining behavior, the participants should always choose more money for less.

This prediction is clearly at odds with the findings that a considerable minority chose less money for themselves. In Experiment 5, a considerable majority of 200 participants chose less money (64.5%). In the same experiment, it is remarkable that 79.5% of the participants "give" the same amount as dictators and when they were alone (observations along the 45-degree line in Figure 2).[12] The correlation between giving as dictators and "giving" in the more-or-less question is strongly positive (Spearman's rho=0.651, $p < 0.001$). In experiments 1, 3, and 4 the participants also faced both a more-or-less choice and binary a dictator choice. Overall, 162 of 273 participants (59.3%) gave the same amount in the more or less money choice as they did in the dictator choice.

[12]Note that in Experiment 5 the dictator choice was framed as "giving" and the more-or-less choice was framed as "keeping." Hence, when giving the same amount as a dictator and when alone, the participants have to tick different amounts, except in even giving.

These results - that considerable number of participants chose less instead of more money and a high, positive correlation between giving as dictators and alone - indicate that the participants in the dictator games have concerns that go beyond the equality concern for dictator and the recipient. This indicates that it may be other factors, in addition to social preference for equality, which matters for dictator giving. Explanation of behavior in the dictator game depends on a satisfactory explanation in the more or less money choice.

Figure 2. Share of endowments participants kept as dictators and when alone.



Note: The circles' sizes are weighted by frequencies of choices when dictators and choices when alone. Data are from experiment 5 with 200 participants.

7 Concluding remarks

The results in the more or less money experiments show that a considerable number of participants choose to receive less money instead of more in a situation where they are alone. One possible explanation is that even without mention of a specific recipient, the participants may still perceive one. Such redistribution concerns were certainly a common explanation among those participants who chose less money in Experiment 6. Another complementary explanation is that participants follow norms like "Do not be greedy", and "You need to deserve the money to accept it from a stranger". Such norm explanations were common in Experiment 6.

However, based on observations in the lab only, it is difficult to distinguish between distributional concern and non-distributional norms. An illustration of this challenge would be an extension of the more or less money experiment to a burning money experiment. Imagine that we design an experiment where the participant chooses to receive more or less money. If the participants choose less money, the money foregone will be burned. The result of such an experiment might be that most of the participants would choose more money and therefore avoid burning money. One explanation of such behavior could simply be that people have a preference for more money. An alternative explanation is that participants follow norms like "Don't burn money" and "Be prudent." To distinguish distributional and non-distributional norm explanations, lab data should be accompanied by theory.

One promising avenue to understand behavior in the lab would be to turn to Adam Smith's Theory of Moral Sentiments. A central assumption in his theory is that humans are sociable:

> Were it possible that a human creature could grow up to manhood in some solitary place, without any communication with his own species, he could no more think of his own character, of the propriety or demerit of his own sentiments and conduct, of the beauty or deformity of his own mind, than of the beauty or deformity of his own face. All these are objects which he cannot easily see, which naturally he does not look at, and with regard to which he is provided with no mirror which can present them to his view. Bring him into society, and he is immediately provided with the mirror which he wanted before. … It is here that he first views the propriety and impropriety of his own passions, the beauty and deformity of his own mind (Adam Smith 1759, 133-134).

Society is a mirror that guides us to sense what proper and improper actions are. Through praise, blame, or no reaction to one's own action, human gradually sense what other expect of them. A human, as Smith observed, desires, not only praise, but praiseworthiness … even it should be praised by nobody".

This sociability of humans differs from homo economicus which is a logical decision-maker with consistent choices (complete, reflective, and transitive). This homo economicus is similar to Adam Smith's thought experiment where a human grew up in a solitary place without society; an individual without a history and future. Such non-social humans could be presumed to always choose more money instead of less.

But humans, according the Adam Smith's Theory of Moral Sentiments, carry a history of sociability with them. They never walk alone; they carry with them other humans through norms evolved through experience. Through experience they sense what is right and wrong. These norms change depending on the context; in some situations it is proper to accept more money instead of less, while in other situation it is inappropriate.

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APPENDIX A

You´ll Never Walk Alone

26 April 2016

Experimental procedures and instructions

All experiments were performed in Norwegian.

Experiments 1, 2, 3, and 4

All experiments took place in an auditorium. Experiments 1, 2, 3, and 4 were performed October 30, 2014; November 11, 2014; January 28, 2015; and February 17, 2015, respectively. The experiments started with an experimenter (the same person in all four experiments) reading the following instructions aloud in Norwegian (those specific to Experiment 2 are in parentheses):

> "This is an experiment in making choices. You will receive a sheet where you are asked to make two (one) decision/s. There are no right or wrong decisions. It is real money that is involved. The amounts of money you receive depend on your decisions in the scheme. The money will be paid in a closed envelope; no one will know how much you received."

The participants were then told that there would be a yellow sticky note on the sheet with a number on it. After receiving the sheet with the sticky note, they were asked to check that the number on the sticky note is the same as the number on the sheet. They were instructed to take off the sticky note and keep it. The participants got two (one) minute/s to fill out their sheets.

After collecting the filled sheets, four sheets were randomly drawn. The experimenter left the auditorium with these four sheets and put the corresponding money in a sealed envelope with

the corresponding number on the outside. The experimenter returned to the auditorium and put the four sheets back with the other sheets and shuffled all sheets. Finally, the experimenter handed the four sealed envelopes to the professor, who then handed the four sealed envelopes to the participants *after* the experimenter had left the auditorium.

The questions in experiments 1–4 are as follows:

Question I

Two persons in the auditorium are randomly drawn to receive money: person A and person B. Together, they receive 500 kroner. If you are drawn to be person A, you have to decide how these 500 kroner should be split between you and person B.

You will have two choice alternatives. You can only mark one of the options. If you mark two or none, you will receive 0 kroner. Mark your choice:

Alternative I: I split evenly: 250 kroner to me and 250 kroner to person B: …

Alternative II: I keep 450 kroner for myself and give 50 kroner to person B: …

Question II

Two persons in the auditorium are randomly drawn to receive money. If you are one of those two persons, you have to decide whether you will receive 250 kroner or 450 kroner. You can only mark one of the options. If you mark two or none, you will receive 0 kroner. Mark your choice:

I will accept 450 kroner, thank you.

I will accept 250 kroner, thank you.

Experiment 5

At the end of the 35-minute session in the lab, the participants were asked to make two choices. They were informed that one person in the session (10 participants) was drawn to receive an extra amount of money based on the two choices:

Question I

If you are drawn to receive 500 kroner, you must choose how much of this money you want to keep for yourself.

If I am drawn to receive 500 kroner, I want to keep …

Question II

If you are drawn to receive 500 kroner, you must choose how much of this 500 kroner you want to give to a random person in the Norwegian population. You will remain anonymous, and no one will find out how much you have chosen to give.

If I am drawn to receive 500 kroner, I want to give to a random person in the Norwegian population …

The procedure for giving money to the random person in the population was as follows. At the same time, we ran Experiment 7 on the Norwegian Citizen Panel where one of the questions was a more-or-less question. Overall, in the 20 sessions, the payment was 3,000 kroner, and this was used in Experiment 7, where participants were randomly drawn to win.

Experiments 6 and 7

Both experiments used the Norwegian Citizen Panel, a web panel survey of a representative sample of the Norwegian population that has two annual rounds. Experiment 6 was performed in round 4 in March–April 2015, and experiment 7 took place in round 5 in November–December 2015. All data is public available, see Ivarsflaten *et. al.* (2015).

The more-or-less question in experiments 6 and 7:

Question A

As a participant in the Norwegian Citizen Panel, you are being included in a drawing for an extra monetary prize. If you win, you can choose to receive 1,000 kroner or 1,800 kroner. Which would you choose? Please tick one of the options:

Yes, please, I would like to receive 1,000 kroner:
Yes, please, I would like to receive 1,800 kroner:

The question to explain the subject's choice in experiment 6 was conditional on choosing to receive 1,000 [or 1800] kroner in Question A.

Question B

You said yes to receive 1,000 [1,800] kroner instead of 1,800 [1,000] kroner. Can you state briefly why you selected this option?

In the reflection condition in Experiment 7, *before* their actual choice to receive more or less (Question A), the participants were asked to briefly state why they chose as they did:

Question B’

As a participant in the Norwegian Citizen Panel, you are being included in a drawing for an extra monetary prize. If you win, you can choose to receive 1,000 kroner or 1,800 kroner. Before you make your choice, can you briefly state why you are making that choice?

Online Appendix B to "You'll Never Walk Alone"

Supplementary sections result

26 April 2016

EXPERIMENTS 1–4

Table B1: Probability for choosing less in experiments 1–4

Experiments:	1	1 and 2	3 and 4
Woman	0.114	0.0747	0.0869
	(0.0957)	(0.0768)	(0.0728)
Dictator question first	0.0931		
	(0.0950)		
Participate in experiments before?			
Yes, 1 time			0.0290
			(0.117)
Yes, 2 times			-0.106
			(0.124)
Yes, 3 or more times			0.0311
			(0.154)
# semester as student			-0.0273
			(0.0380)
Econ class		-0.0523	-0.0214
		(0.0763)	(0.112)
Constant	0.190**	0.305***	0.346***
	(0.0787)	(0.0780)	(0.112)
Observations	91	166	182
R^2	0.026	0.012	0.028

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B2: Probability for choosing even distribution as dictator for Experiments 1–4

Experiments	1 and 2	3 and 4
Woman	0.107	0.140*
	(0.0735)	(0.0713)
Participated in experiments before?		
Yes, 1 time		-0.133
		(0.115)
Yes, 2 times		-0.291**
		(0.122)
Yes, 3 or more times		-0.265*
		(0.151)
# semester as student		0.00603
		(0.0372)
Econ class	-0.0963	-0.113
	(0.0733)	(0.110)
Constant	0.697***	0.704***
	(0.0737)	(0.110)
Observations	166	182
R^2	0.031	0.164

Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

In experiments 1, 2, and 4, the participants face both a more-or-less choice and a binary dictator choice. Overall, 162 of 273 participants (59.3%) kept the same amount in the more or less choice as in the dictator choice. Among those that chose different there were relative more who chose "more" in the more or less choice and even in dictator choice (statically different according to a McNemar different test, p<0.000).

Table B.3 Number choosing even and uneven distribution in dictator game conditional on choosing less or more (percentages in parentheses) in experiments 1, 3, and 4.

	Even (250 kroner, 250 kroner)	Uneven (450 kroner, 50 kroner)	# Subjects
250 kroner	71 (0.261)	10 (0.037)	81
450 kroner	101 (0.370)	91 (0.333)	192
# Subjects	172	101	273

Note: The choices are in randomized order.

Table B4: OLS regression of kept share of endowment of 500 kroner if alone, Experiment 5

Woman	0.0101
	(0.0394)
Participate in experiment before	0.126***
	(0.0410)
Constant	0.664***
	(0.0350)
Observations	200
R^2	0.046

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table B5: Probability for choosing less (Experiment 6).

Woman	-0.0117
	(0.0271)
Recruited late	0.0109
	(0.0272)
Upper secondary education	-0.0567
	(0.0532)
University or University College	-0.0801
	(0.0508)
Age 26-35	-0.0600
	(0.0604)
Age 36-45	0.00217
	(0.0582)
Age 46-55	-0.0168
	(0.0551)
Age 56-65	0.0737
	(0.0549)
Age 66-75	0.0110
	(0.0603)
Age 76 plus	0.0670
	(0.0831)
Constant	0.281***
	(0.0675)
Observations	973
R^2	0.015

Note: Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The table report OLS regression. The reference category for the education dummies is "No education or elementary school", and for the age variables "Age 18-25". The number of observations is fewer than those 1,019 subjects that answered the more or less money question due to missing observations on other variables.

TABLE B6: Probability for choosing less (Experiment 7)

	(1)	(2)	(3)
Reflection	0.00545	0.00260	0.00279
	(0.0266)	(0.0266)	(0.0257)
Experience	-0.0453	-0.0487	
	(0.0310)	(0.0310)	
Refl. * Experience	0.0750*	0.0789*	
	(0.0435)	(0.0436)	
More previous			-0.160***
			(0.0328)
Refl. * More			0.0930**
			(0.0458)
Less previous			0.318***
			(0.0525)
Refl. *Less			0.0414
			(0.0742)
Woman		-0.0131	-0.00605
		(0.0212)	(0.0205)
Recruited late		0.0138	0.0142
		(0.0211)	(0.0205)
Age 26-35		0.00885	0.0273
		(0.0553)	(0.0535)
Age 36-45		0.0181	0.0284
		(0.0530)	(0.0512)
Age 46-55		0.0288	0.0439
		(0.0507)	(0.0491)
Age 56-65		0.0296	0.0299
		(0.0503)	(0.0486)
Age 66-75		0.0902*	0.0965*
		(0.0516)	(0.0499)
Age 76 plus		0.185***	0.174***
		(0.0678)	(0.0656)
Constant	0.292***	0.251***	0.239***
	(0.0189)	(0.0509)	(0.0492)
Observations	1861	1861	1861
R^2	0.003	0.012	0.077

Note: Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The table reports OLS regressions. The reference category for the education dummies is "No education or elementary school", and for the age variables “Age 18-25”.

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