Can't Touch This!

Similarity And The Willingness to Keep "Dirty Money"*

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PRELIMINARY DRAFT

March 19, 2014

Abstract

Traditionally, allocations by dictators in Dictator Games (gifts) have been explained by aspects of altruism, reciprocity, and fairness. However, this assumes the gift to be desirable to the dictators and responder. Giving may also be driven by the source of the endowment. We examine this by using three sources to generate the endowment in a Dictator Game:(1) undergraduate students, (2) Amazon Mechanical Turk workers, and (3) users of a racially/ethnically charged web forum. This endowment is provided to subjects in a traditional laboratory experiment. We find dictator similarity with the source of the endowment influences their allocation decision; the more similar subjects feel to the source the more of the endowment they keep. Our results suggest that decisions can be strongly influenced by the provider of income shocks.

JEL classification: C78; C91; C99; D31; D64; D74
Keywords: Experiment; Inequality; Approval

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1 Introduction

In the aftermath of hurricane Katrina, the racist musical act known as "Prussian Blue" made the news by stipulating their donations to victims of hurricane Katrina go only to white families.[1] Complicating matters further, the donations came with a pamphlet promoting racist ideology.[2] In contrast to what purely self-centered money-maximizing agent theories would predict, few people accepted the aid and the majority of it was dumped in a shop specializing in the sale of Confederate memorabilia. In effect, due to the source and message of the sender, needed aid that could have helped relieve suffering sat collecting dust. In this instance, the gift was not purely charitable, but rather included a component of propaganda. However, the outright rejection of needed aid is in stark contrast to the way in which academics have traditionally approached giving.

Altruism is often cited as a primary reason for donation. Assuming this early theories model charitable giving as a public good. What matters not is the source of the donation but rather the goal the donation accomplished. With this in mind, early theory suggests government spending crowds out private donations (Warr, 1982; Roberts, 1984). Though there is a degree of substitution between donations and government spending, people also have a taste for giving, deriving a nebulous warm glow from the act of giving (Becker, 1974). This warm glow does not require the agent to be placed outside the realm of rationality, only that they derive some utility from the act of giving.

An implication of warm glow is that the donation to charity has three component benefits. First, there are direct benefits (material and psychological) to the individuals who receive the donations. Second there is the public component that all members of society enjoy by seeing the harm mitigated. Finally, there is the private, subjective, warm glow the givers receive from the act of donation. This classification of the benefits of donations is not novel and is described in great detail by Andreoni (1989). It is not, however, designed to account for gifts that are not mutually agreed to be positive. Such gifts may be rejected or generate a 'cold freeze.' Note that this is distinct from the concept of a cold prickle (Andreoni, 1995). Here, individuals are not taking from a public good, but providing a gift of dubious desirability.[3] Giving may occur out of spite, a desire to create obligation, or to rid the original owner of unwanted resources. In the example of the racist musical act, it was clear the objective of the gift giver was at least in part to influence the beliefs of the receiver. However, this is not always the case.[4]

Seminal work on gift exchange assumes the receiver will not (or cannot) reject the gift or, as an alternative, returns the excess of the gift to the giver (c.f. trust game settings). In most situations this is not an unreasonable assumption. However, this is not universally true. The receiver may not have any need for the gift or have a negative view of the gift-

[1] Abcnews.com (2005) "Young Singers Spread Racist Hate". Accessed on May 2013

[2] Enoch, Nick. (2012) "'Marijuana changed us from Nazis to peace-loving hippies' Twin sisters who sparked outrage with pop band named after gas used on Jews claim they've grown up." The Daily Mail. Accessed on May 2013

[3] Ours is not the first study to suggest that some giving occurs for reasons other than altruism or positive motives. Andreoni et al. (2011) find evidence that giving may be affected by the ability of individuals to avoid the party seeking donations.

[4] Michaels, Sean. (2011) "Nelly Furtado to donate $1m Gaddafi concert fee to charity". www.theguardian.com. Accessed on May 2013

giver. In such cases, it is easy to imagine the receiver may throw away a gift or choose not to accept it.[5] For example, if the receiver dislikes or does not want to be associated with the giver, she may wish to punish the giver by ridding herself of the gift. Alternatively, the receiver may not wish to owe the giver any future reciprocity. Although both reasons would explain refusal to accept, the first is of special interest, because of its relation to group identity. Group identity has significant impact on human behavior. The literature in social psychology and behavioral economics provide ample evidence that a strong sense of group identity may lead to pro-social behavior within the in-group, while the same may lead to discrimination against individuals who are not members of the in-group; not necessarily through hostility, but through indifference (Allport, 1954; Tajfel, 1970; Chen and Li, 2009). However, much of this literature focuses on shared or unshared group identity between the gift-giver and receiver. The primary goal of this paper is to test how subjects' similarity with the source of their endowment influences the dictator game giving. We propose a simple model which assumes the subjective value of money is a function of the source providing it. This leads to changes in the marginal rate of substitution between a subject's own income and that of a partner.

To test this assumption, we use an economic experiment and manipulate the source of the dictator's endowment. The three sources are (1) workers from an online labor market (Amazon Mechanical Turk), (2) students from a large public university, and (3) users of a neo-Nazi internet forum (stormfront.org). Subjects from these sources generate money with a very simple decision, however we are not invested in how these subjects behave. They are used as a means to generate the endowments for the dictators in a separate laboratory dictator game. We endow proposers with a portion of what was generated by these sources. Prior to making allocation decisions, proposers are told the source of their endowment and given information about the nature of the source. After making their allocation decisions, all subjects answer a series of questions revealing their similarity with the source of their endowment.

We find no significant differences in the amounts given by dictators across the three treatment sources. Rather, we find that an individual's similarity with the source of their endowment has a significant effect on dictator game giving. That is, subjects with greater similarity to the source of the endowment pass off a smaller portion than those reporting less similarity. Moreover, we find increased levels of trust between endowment sources and the dictator are significantly and positively correlated with amounts sent to the receiver. This demonstrates giving behavior can be influenced by the source of endowment. An interesting implication of our work is that consumer decisions may be susceptible to changes in the portfolio of income providers.

2 Literature

In the canonical dictator game, the dictator is provided an endowment and is tasked with the choice of what portion, if any, to send to the responder. The responder has no choice and must accept the offer. Naive Nash predictions suggest the dictator send nothing to the

[5] Gift refusal does not necessarily require the receiver to have a negative view of the gift giver. Rather refusal may simply be an artifact of extreme positive affect source or politeness that is ingrained within the culture (e.g. Iranian T'aarof).

responder and keep the entire endowment for herself. This behavior is rarely observed in the laboratory or field (List, 2007). However, this is not unexpected as there are multiple "other-regarding preferences" that are known to influence amounts sent by dictators.

First, concerns for fairness partially explains allocation decisions, though giving increases with social ties and expectations of reciprocity (Hoffman et al., 1996; Bolton et al., 1998). Dictators with dense social networks and mutual friendship ties with the responder also send more than those without (Brañas-Garza et al., 2010; Leider et al., 2009). Indeed social networks and dictator games have been widely studied. As Goeree et al. (2010) state, "Experimenters have manipulated the degree of social distance, ranging from a total stranger over another member of the subject pool to a member of a more closely defined group, to the friend of a friend of a friend, to the friend of a friend, to an immediate."

Direct and indirect personal relationships between specific individuals are not unique in explaining differences in dictator behavior. Age, gender, race, student status, and other demographic variables also impact giving in dictator games. Women, for example, both give more as dictators and likely receive more as responders (Engel, 2011) in cases where the dictator knows the the gender. The effect of demographics is not surprising, given how easily individuals form in-group bonds (Tajfel and Turner, 2004). Among other factors, simple pre-task communication increases intra- (but not inter) group cooperation (Halevy et al., 2008). Furthermore, it is well known that endogenous group selection leads to relatively homogeneous groups; members of groups tend to be relatively similar. Thus, it is not surprising that similarity is linked to higher cooperation rates (Fischer, 2009; Glöckner et al., 2014) and altruistic punishment of norm violations (Mussweiler and Ockenfels, 2013). It can even guarantee the surviving in relatively hostile and uncooperative environments (Fischer et al., 2013).

Other explanations of dictator giving involve inequality aversion and/or non-monetary utility derived from the other player's earnings. Notably, Fehr and Schmidt (1999) and Bolton and Ockenfels (2000), each propose models of inequality aversion, predicting positive allocations to the responder. A subject's earnings are important to her, but so is her standing relative to other subjects. Subjects are not interested only in high absolute earnings, but in their absence, earning more than their peers. Similarly, if subjects observe self-interested behavior, then they are less willing to make sacrifices themselves (Charness and Rabin, 2002).

To this point, there is little support for the argument that humans act as purely self-centered agents. Although laboratory experiments frequently record dictator game offers of zero, the typical allocation is significantly greater. In a meta study, Engel (2011) finds that the average amount sent by dictators is nearly 30 percent of the initial endowment. Deviations from this base level can be categorized as "situational and behavioral dispositions" and demographics. Cardenas and Carpenter (2008) also aggregate experimental findings and present myriad empirical relationships between institutions and demographics influencing cooperation/pro-social behavior.

As Cherry (2001) argues, dictators who have earned their endowments behave in a more self-interested fashion than those who receive it as a windfall from the experimenter. On the reverse side, responders who perform well on a skill task are rewarded by dictators, reflecting a belief that skilled responders are more deserving (Ruffle, 1998). Insofar as allocations are affected by considerations for fairness, the "fair level" can be manipulated.

A warm glow may be felt, but its intensity is dependent on the dictator's perception of each party's relative worthiness. Andreoni and Miller (2002) find, using experimental tokens, that dictators give more, when tokens are relatively more valuable to responders.

So far, the use of different endowment sources aimed at manipulating the property rights. For example, Oxoby and Spraggon (2008) show that when receivers earn the amounts that are to be distributed by the dictators, dictators pass significantly larger amounts. Property rights are further manipulated in taking games that are structurally similar to the dictator game and have identical homo economicus predictions (Bardsley, 2008). These games expand the decision space so that dictators can take amounts from the responder, who is provided an endowment. This comes closer to the intended purpose of this project by allowing for what may be perceived as more or less (normatively) negative behavior in gift exchange. The study detailed here extends current knowledge of generosity by examining motives other than those considered to be socially positive. Namely, we propose that a subject's value of money is a function of a vector of parameters accounting for property rights, expectations, deservedness, and the source of the endowment. The model we introduce is a simple extension of existing theory. Our experiment provides significant evidence for the influence of the endowment source on dictator game giving.

3 Experimental Design

The experiment is composed of two stages. In the first stage, we use non-laboratory subjects from three distinct groups (stormfront.org users, Amazon Mechanical Turk Workers, and Florida State University students) to generate the endowments of dictators in the second stage. The generated endowment is always the same. This first stage is only implemented to manipulate the subjects' similarity with the income generating source without the use of deception. Details for this first stage can be found in the appendix.

In the lab[6] , half of the subjects are assigned the role of the dictator (called "proposer" in the instructions) and are given ten dollars. Dictators are then told the group affiliation of the individual who generated the amount, and are given information about the group in question. One third of dictators are randomly matched with each of the three sources; these are the treatments. The information about the dictators' endowment source comes in the form of screen shots from the sources' websites and the groups' motto/mission statement (presented in Figures 3, 4 and 5 in the appendix).

The other half of subjects (the responders) earn whatever the dictators passes to them. In all sessions, dictators are fully informed. Responders only observe their earnings and never learn the source of the dictators' endowment. Subjects are truthfully told their decisions will not be linked to their name and that their decisions will remain private. After

[6] The laboratory experiment is conducted with the standard subject pool in the Experimental Social Sciences (xs/fs) Laboratory at Florida State University. The experiment is run using zTree Fischbacher (2007). Subjects are all students at Florida State University and are recruited with the ORSEE recruitment system Greiner (2004). Subjects who previously participated in the experiment are ineligible to participate in the experiment again. After being seated and having the instructions read to them, subjects complete a short quiz to ensure understanding of the game. After completion of the quiz, the experiment begins. Each experiment took approximately 45 minutes. In addition to a five dollar show-up fee, each subject on average made 5 dollars. Dictators on average make 1.86 more than responders.

Table 1: Earnings by Treatment and Role

	Number of Subjects (Dictators)	Dictators	Responders
STORM	36(18)	674.72	325.28
AMT	36(18)	666.66	333.33
FSU	36(18)	718.89	281.11

the dictator game, all subjects answer a questionnaire including a demographic survey and questions concerning political ideology and their opinions toward the source providing the endowment. To asses the perceived similarity subjects are asked three questions on a Likert scale ranging from 1 (not at all) to 11 (very much). The first one elicited how similar subjects thought they were to an average person from the matched group (SIMILAR) and the second asked how much the subject shared opinions and beliefs (OPINIONS).[7] As an additional control we elicited how much one could trust an average person at the source (TRUST). A summary of the treatments and earnings can be seen in Table 1.

With our design we tried to minimize the possibility of session and experimenter demand effects (Zizzo, 2010). First, in every session all three sources were matched with dictators. Students learned the source of their endowment only on the screen and only they knew their source. Furthermore, we paid subjects with a double blind mechanism and subjects were informed about this from the start. This was accomplished by recruiting an additional subject who left the laboratory for the duration of the experiment and whose role was to deliver the payments. This subject paid the participants by calling the numbers of the computer terminals and handing each participant an envelope with their terminal number written on it. The envelope contained a check with the payment for the experiment. The check was signed and listed the correct payment amount, but not the name of the subject. The researcher preparing the checks was not in the same room as the participants and thus not able to link actual persons to terminal numbers/decisions. See the appendix for detailed description of the payment process.

3.1 Hypotheses

We posit the source of an endowment plays an important role in determining dictator game giving and effectively changes the value of money. Changes in the value of money lead to changes in the marginal rate of substitution between own one subject's earnings and the earnings of the other. For example, monies provided by loved ones may be treated more carefully than money found on the street or gained via a dubious source. Because of differences in the valuation of monetarily equal endowments, individuals may spend differently, depending on similarity with the source. An orthodox utility function accounting for dictator game giving would have dictators maximizing an objective function, $U(e, x)$, that is a function of two components relating to their own earnings, $f(e-x)$, and the earnings of the other player, $z(x)$. The first component, $f(e - x)$, is assumed to be increasing in the size of the endowment, e, and decreasing in the offer, x, while the second component is increasing in the earnings of the other player, $z(x)$. More formally, the problem can be

[7] Exact question wording can be found in the appendix.

written as shown in Equation 1.

$$U(x,e) = \max_{x} \; f(e-x) + z(x) \qquad (1)$$
$$s.t. \quad e \geq x$$

Dictators maximize utility by selecting x such that the marginal cost (utility lost due to foregone income) of the offer is equal to the marginal benefit (utility gained from a "warm glow" provided by the other player's increased income) and subject to a budget constraint $e \geq x$.

We propose a simple modification to the utility function presented above, namely that the dictator's utility function includes an additional component: similarity with the source providing the endowment. Specifically, $g(e,\alpha)$ increases or decreases a subjective value of money provided by a source, yielding the function $f(g(e,\alpha)-x)$, where $\alpha \in (0,1)$. Dictators therefore seek to maximize the objective function presented in the equation below.

$$U(x,e,\alpha) = \max_{x} \; f(g(e,\alpha)-x) + z(x) \qquad (2)$$
$$s.t. \quad e \geq x$$

We borrow from a canonical belief that utility is increasing in money, $g'_e > 0$, and that it increases at a decreasing rate, $g''_e < 0$, but also assume, $g'_\alpha > 0$. Naturally it follows that as $g(e,\alpha)$ increases so does U, implying f'_g is greater than zero. Dictators therefore again maximize utility by selecting an x^* satisfying the first order condition of U'_x that is shown in Equation 3.

$$\frac{\partial f}{\partial g}\frac{\partial g}{\partial x} = \frac{\partial z}{\partial x} \qquad (3)$$

The left side of Equation 3 can be interpreted as the marginal cost of giving, while the right is marginal benefit. Assuming $g'_\alpha > 0$ implies increases in α raise the marginal cost of giving and thereby lead to decreases in the amount sent to the responder. The primary implication of this specification is that in cases where the source of an endowment is perceived to be less good, the amount given to the other player will be larger. In other words to attenuate the disutility associated with taking money from an unsavory source, an individual may pass off a larger portion of the amount to another individual. Not only does this lead to utility gains derived from the increased income of the other individual but also it decreases the psychological costs of keeping the unpalatable endowment. This simple structure provides us with enough to form testable hypotheses. We test two hypotheses relating to how perceived similarity influences dictator game giving.

Hypothesis 1 *Dictators indicating less similarity with the source of their endowment will give comparatively higher amounts to responders in the dictator game.*

We are not testing a traditional treatment effect but rather focus on an indirect effect. Rejection of the null does not require significantly different treatment effects. While average similarity with the three groups may differ, a subject with a perception of similarity with AMT users may behave in a manner indistinguishable from a subject with a perception of similarity to fellow FSU students. Because of this, we are testing how the dictator's perceived similarity with their source effects their giving behavior.

Hypothesis 2 *There is substantial variance in the affect variables (similarity, shared opinions, and trust) across the three groups. Subjects will feel significantly different affect toward each of the three groups. This will take the order of* $FSU > AMT > HATE$.

We will operationalize affect with the survey questions discussed earlier (wording the appendix). Using these questionnaire items we will construct a variable called "similarity". This variable will be our measure of general similarity.

4 Results

We will first check the success of manipulating the similarity with the endowment source. In a second step we will investigate the effect of similarity with the endowment source on the amount given/kept in the dictator game.

4.1 Manipulation Check

The reason to assign dictators different endowment sources was to manipulate the similarity between the dictator and the endowment source. To asses the similarity we used two items (SIMILAR and OPINIONS) on a Likert scale from 1 to 11. These two items are highly correlated ($r = 0.7878$, with $p < 0.001$) and the constructed similarity scale has an excellent reliability coefficient (Cronbach's $\alpha = 0.927$).

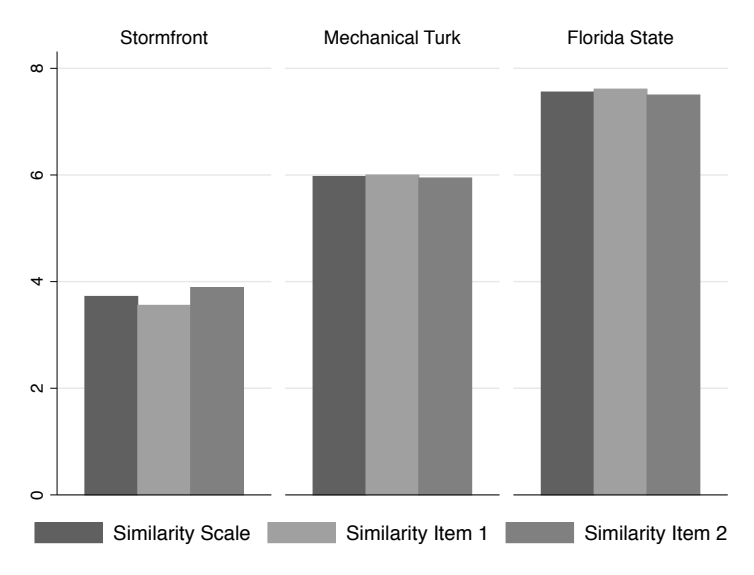

Figure 1: Mean of similarity scale and means of the two underlining items

Figure 1 reveals that the pairing with different endowment sources successfully manipulated the perceived similarity with the endowment source. The figure gives the mean of the similarity scale for the different endowment sources, as well as the means of the two underlining items. Clearly, our manipulation of similarity is successful. Comparing the

similarity scale over the different endowment sources confirms the differences to be highly significant (Kruskal-Wallis equality-of-populations rank test $p < 0.01$).[8]

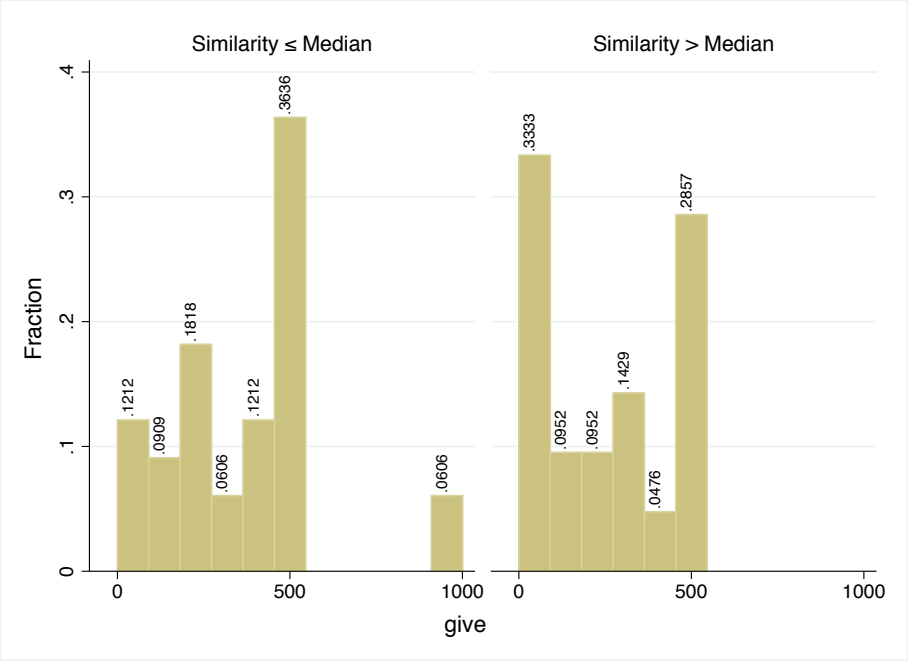

Figure 2: Histograms of Dictator Giving for low (left) and high (right) similarity

4.2 Dictator giving and similarity with the endowment source

On average dictators give 31.3% of their endowment to the recipients, which is very close to the mean of 28.35% reported in the meta-study by Engel (2011).[9] However, the whole distribution looks differently from the one reported in Engel (2011). Out of 20,813 dictators in the meta-study 36.11% give nothing to the recipient, and 16.74% choose the equal split. In our study, a lower percentage of dictators give nothing (20.37%), and more dictators give half of their endowment (33.33%).

Interestingly, the distribution of amounts given by dictators with above median similarity to the endowment source looks similar to the distribution reported by Engel (2011). Figure 2 gives the distribution of amounts given by dictators. The left panel of Figure 2 gives the distribution for dictators who report a similarity to the endowment source that is below or equal to the median similarity level in our sample, the right panel for dictators with reported similarity above the median level. Average amounts shared by dictators with greater similarity to the endowment source are significantly smaller than the ones of

[8] Pairwise comparisons between endowment sources confirm this finding (two-sided Fisher-Pitman permutation test, Stormfront vs. Mechanical Turk $p < 0.01$, Stormfront vs. Florida State $p < 0.01$ and Florida State vs. Mechanical Turk $p = 0.029$. The same holds for similarity item 1 and similarity item 2 (all comparisons with $p < 0.05$).

[9] Our mean contributions do not differ significantly from the average reported in the meta-study (two-sided two-sided Fisher-Pitman permutation test $p = 0.356$).

dictators with smaller similarity (239 Cents vs. 361 Cents, two-sided Fisher-Pitman permutation test $p = 0.064$). Furthermore, dictators with above median similarity keep the whole amount (two-sided Fisher's exact test $p = 0.085$) a significant portion of the time. Overall, the amount given is significantly and negatively correlated with the similarity level ($r = -0.2628$, with $p < 0.055$).

Result 1: *The similarity to the endowment source influences the dictators' giving significantly. The higher the similarity, the larger the part of the endowment the dictators keep for themselves.*

In a next step we test the robustness of the above results. Table 2 gives the results of several regressions models. Models 1 to 5 are Tobit regressions to account for the censored data.[10] Model 1 replicates the result from the non-parametric correlation, higher similarity with the endowment source leads to higher amounts kept by the dictators Model 2 includes our measure for how much the dictator trusts the endowment source. Interestingly, the more dictators trust the endowment source the more of their endowment they are willing to give away.[11]

Models 3 adds dummies for the endowment sources (Mechanical Turk and Student). The two opposing effects of similarity and trust remain significant and the coefficients increase slightly. Adding dummies for the endowment sources allows us to disentangle whether the giving is just driven by being matched with one specific endowment source or due to the general effect of similarity with the endowment source. Both dummies remain insignificant, suggesting that dictator giving is actually influenced by similarity with the endowment source and not by one particular endowment source.[12]

In Model 4 we add gender and age as well as session dummies. Our design allows to control for single session effects as subjects in each session were paired with the three endowment sources. Nevertheless, the coefficients for similarity with the endowment source and trust in the endowment source remain stable and significant. Model 5 finally replicates the previous results with an OLS regression.

Our regression analysis demonstrate that the effect of similarity with the endowment source on the willingness to share are robust to several controls. In addition, we identify a second influence by the endowment sources: higher trustworthiness of the endowment source results in larger transfers to the recipient.

Result 2: *The effect of similarity on the dictators' giving is robust to added controls. Furthermore, the higher the trustworthiness of the endowment source the more the dictators*

[10] 17% of the data is left-censored and 4% is right-censored

[11] The positive correlation between subject trust in the endowment source and the amount the dictator sends to their matched counterpart is not surprising once we consider subject behavior in trust game experiments. Subjects in the final stage of the trust game (analogous to dictators) generally reward investor trust by increasing the amount returned to the investor. While this is might be mostly driven by concerns for reciprocity our finding suggest baseline levels of trust toward endowment providers may further influence the giving.

[12] Endowments from Mechanical Turk and Florida State have no significant impact on the dictator giving in comparison to endowments from Stormfront. Furthermore, there is no difference between endowments from Mechanical Turk and Florida State as the two coefficients do not differ significantly ($p = 0.23$).

Table 2: Dictator Giving

Given	(1)	(2)	(3)	(4)	(5)
	Tobit	Tobit	Tobit	Tobit	OLS
Similarity Source	-30.08**	-72.33***	-78.71***	-86.30***	-70.97***
	(13.93)	(25.32)	(23.87)	(24.00)	(17.96)
Trust Source		55.13**	63.23**	80.31**	69.32***
		(23.65)	(25.64)	(30.02)	(24.69)
AMT			81.53	56.74	41.82
			(94.30)	(98.91)	(89.30)
FSU			-12.44	-55.25	-44.94
			(102.1)	(101.1)	(84.67)
Female				80.36	51.73
				(85.92)	(78.56)
Age				-5.590	-6.387
				(20.49)	(18.82)
Constant	464.5***	399.9***	367.7***	199.6	262.5
	(87.95)	(123.1)	(130.3)	(503.1)	(455.9)
Session dummies:	-	-	-	Yes	Yes
Observations	54	54	54	54	54
Prob> F	0.0318	0.0206	0.0241	0.0054	0.0014
R^2	0.0073	0.0130	0.0149	0.0261	0.2731

Note: Robust standard errors in parentheses. Because dictator giving is censored at zero and ten dollars, estimates are Tobit coefficients. Pseudo R^2 for Models 1-4. Model 4 controls for session effects with session dummies. As a last robustness check Model 5 replicates Model 4 as an OLS regression.

*** p<0.01, ** p<0.05, * p<0.1

give to the recipient.

5 Discussion

In our model, we assume one of many possible functional forms for a mechanism that could lead to the source of the endowment influencing giving behavior. In the case of lack of similarity (or perhaps negative affect) with the source, the subject may feel less connected to the group and thus the value of the endowment decreases.

Like in the examples presented at the start of the paper, it is possible dictators are attempting to stave off feelings of guilt concerning their endowment source by increasing the amount they send to the responder. This explanation is consistent with the data but not

explicitly accounted for in the model, unless one makes the assumption that guilt influences the α parameter. Another intriguing possibility is that our theory incorrectly identifies the component in the utility function responsible for the change subject behavior. Specifically, rather than α influencing the dictator's value of the endowment, it may rather impact the subject's utility derived from giving. That is, if the subject is less similar to the source, they may derive greater warm glow from giving; this would incentivize increased giving if the endowment was provided by a source unlike the dictator. Of course this also introduces the possibility that there are α in the own earnings component and the warm glow component. However in this last case the two parameters would effect giving in the same direction. Endowments provided by unlike sources would decrease the subjective value of money as well as the warm glow from giving.

To our knowledge, previous work is not designed to investigate how similarity to the source of an endowment influences economic decision making. Rather, all endowments of equal size from the same source are regarded equally. We present evidence that this may not be the case. Specifically, similarity with the source leads to less generosity, while less similarity leads to more. Our results suggest money from loved ones is spent differently than money from strangers. The fact that the source of income can influence monetary decisions is a novel extension to the literature and opens up a wide swath of questions for future research.

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A First Stage and the Endowment Generation Process

The first stage is only used to generate the endowments for dictators in the second stage. This is done by having subjects take a short survey and subsequently indicate their preference over a pair of allocations. Stage one subjects are paid solely based on this choice, which is the end of their involvement. The allocation preference task is presented in Figure 1. The first allocation pays 10 dollars to the decision maker and 8 dollars times a constant to an unspecified "other" party. The second allocations pays 12 dollars to the subject making the decision and 10 dollars times the same constant to the unspecified other party. The other party in the experiment being participants in the second stage of the experiment. Participants in the first stage are not told anything about the participants in the second stage.

The specific numbers here are irrelevant as Allocation B dominates Allocation A for both the source and the unspecified other. For any constant $z > 0$. It is easy to defend strong priors that B will be chosen in nearly every instance, and indeed all stage one subjects make this selection. The purpose of this first stage is not to observe differences in behavior, but so that subjects in stage two can be truthfully told the source of their endowment.

Table 3: Source Player Choice

Option A	Option B
ME: 10.00	Me: 12.00
OTHER: $8.00 * z$	$10.00 * z$

Three subjects, each from a different group, participated in the first stage of the experiment. The first subject is an undergraduate student who participated in a pen and paper version of the task. The remaining two subjects participated through the online labor market Amazon Mechanical Turk (AMT). One was recruited through the open AMT worker pool[13] while the other was recruited directly from stormfront.org. To ensure the group membership of the stormfront subject, this individual was recruited first and participated in a password protected version of the task. The password could only be obtained by forum users. All three participants were aware that they were participating in an experiment. These subjects are only used for endowment generation and as such we do not analyze any of the data provided by them.

[13] For a review of AMT recruitment procedures, see Cooper and Johnson (2013).

B Screen Shots of Endowment Providers

Figure 3: Stormfront.org: "We are a community of racial realists and idealists. We are White Nationalists who support true diversity and a homeland for all peoples. Thousand of organizations promote the interest, values and heritage of non-white minorities. We promote ours. We are the voice of the new embattled White minority."

Figure 4: Amazon Mechanical Turk: "We give business and developers access to an on-demand, scalable workforce. Workers select from thousands of tasks and work whenever it's convenient."

Figure 5: Florida State University"Strength, Skill, Character."

C Question Wording

In addition to demographic variables, we collected information regarding the opinions dictators held concerning the source of their endowment. Subjects answer each of the following questions on an 11 point scale that ranges from "Not at All" to "Very Much"

(SIMILAR) What do you think, how similar are you to an average *source*?
(TRUST) What do you think, how much can you trust an average *source*?
(OPINIONS) What do you think, how much do you share opinions and beliefs with the average *source*?

Subjects were asked only for their matched source, with *source* being either a *www.stormfront.org user*, *www.mturk.com user*, or *Florida State University student*.

D Instructions and Consent

D.1 Experimental Instructions

Thank you for participating in today's experiment. During this experiment you can earn money. At the end of the experiment your personal earnings will be added to your $5 participation fee. These earnings will be paid to you with a check as soon as the experiment is over. This payment will be anonymous, which means that no other participant of this experiment will be informed about the size of your payment.

Procedure for your payment

We invited one additional subject, who will not participate in the experiment. She/he will be randomly selected and leave the laboratory for the duration of the experiment. Therefore, she/he will not know the topic of today's experiment. She/he will receive the participation fee of $5 as well as an additional compensation.

After the experiment, this person is going to do the payments. She/he will call the numbers of the terminals and give an envelope to each participant. The envelope contains a check with the payment for this experiment. The check is signed and has the earned amount on it, but you still need to add your name. In addition, the envelope contains a receipt. Please add all necessary information to the receipt and put it back into the envelope and place the envelope in a box. This box will go directly to the financial accountants of the economics department and will be used only for accounting reasons. Neither the researcher, nor the students supporting the conduction of this experiment will open these envelopes.

The participant organizing the payments will neither know the amount on the check nor the amount on the receipt! Please remember to take the check with you!

Why do we use this procedure for your payment?

This procedure will ensure that the researchers conducting this experiment are not able to connect a single decision in this experiment with an actual person or name. The researchers know only the cabin number, but they will never know your private information (e.g. name, gender, age). Furthermore, as the researchers are in a different room, they will not know your faces.

Thank you for participating in today's experiment. We will read through the instructions so that all participants of this experiment receive the same information. It is very important that you do not talk to other participants at any point during the entire experiment. In case you do not understand some parts of the experiment, please read through these instructions again. If you have further questions after this, please give us a sign by raising your hand. We will then approach you in order to answer your questions personally.

During this experiment you can earn money. At the end of the experiment your personal earnings will be added to your $5 participation fee. These earnings will be paid to you by check and/or in cash as soon as the experiment is over. This payment will be anonymous, which means that no other participant will be informed about the size of your payment.

During the course of the experiment, you will be randomly assigned to participate with another participant. You will receive information about the matched participant's decision, but you will get no information on who those person actually is; neither during the experiment, nor at some point after the experiment. Similarly, the other participants will not be given any information about your identity.

Please remain quiet and do not communicate with other participants during the entire experiment. Raise your hand if you have any questions. One of us will come to you to answer them.

The experiment consists of one decision game and several questionnaires. The instructions for each part will be given separately at the beginning of that part.

In this game half of all the participants in this room will be assigned to the role of the proposers, the other half will be assigned to the role of the responder. The computer randomly assigns each responder to one proposer. At the beginning of the experiment the computer will inform you about your assigned role.

In this game the proposer decides about the allocation of XXX US Cents. People having different group affiliations generated this initial endowment. There are three different group affiliations. One third of today's proposers will be matched with a person from the first group, one third with a person from the second group, and one third with a person from the third group. Before the proposer chooses his allocation the computer will reveal the affiliation of the person who generated the initial endowment. All people involved in the payments at the end of the experiment have no information on the group affiliation of the person that generated your initial endowment. The proposer can decide about the exact allocation of the XXX US Cents. This means the proposer decides about:

- the amount he/she wants to keep
- the amount he/she wants to give the responder

The allocation will be in US-Cents and the total sum of the allocated amounts must add up to XXX US Cents. This game will be played once - no repetition will follow. After the proposer fixed the allocation, both responder and proposer will be informed about the chosen allocation as well as the final distribution of amounts. Responders will make no decisions. Thereafter, we ask you to answer some questionnaires.

Please raise your hand now if you have some questions about this game. We will come to your terminal and try to help you. Before proposers learn the group affiliation of the individual that generated your initial endowment, we will have you take a short quiz. Once everyone has completed the quiz, proposers will learn the group affiliation of the individual that provided the initial endowment. The endowment for your decision was provided by a worker who participates on Stormfront/Amazon Mechanical Turk/ Florida State University. From their website:

D.2 Informed Consent for AMT

I chose to voluntarily to participate in this research project. I have been recruited for this study through Mechanical Turk. Only persons 18 years of age or older may participate, and I affirm that I am 18 years of age or older. This study involves reading hand written messages in English. Only individuals who read and write English may participate. I affirm that I can read and write in English. The initial phase of this study will take about 10 minutes to complete and will involve me answering a number of survey questions. If I complete the first phase of the study, I will be eligible for a second phase where I can earn a bonus by making a decision. This decision will take approximately 5 minutes to

complete. I am free to withdraw from the study at any time without compensation and without incurring the ill will of the researchers. There are no known risks or benefits from this study beyond those from any typical activity you might do in an online environment. This study will benefit society by helping researchers to better understand how individuals make and accept gifts. The confidentiality of any personal information will be protected to the extent allowed by law.

Only the researcher and any research assistants conducting this experiment will have access to the data from this study. My name will not be reported with any results related to this research. I can obtain further information from David Johnson (xsfsturk@gmail.com). If I have questions concerning my rights as a research subject, I can call the FSU Human Subjects Committee office at 1-850-644-8836 or email them at humansubjects@magnet.fsu.edu. I may ask questions at any time via email (xsfsturk@gmail.com). Please feel free to contact us at this email address if you have any questions. Should new information become available during the course of this study about risks or benefits that might affect my willingness to continue in this research project, it will be given to me as soon as possible. By pressing on the checking the checkbox below, you indicate your consent to participate in this study.