Journal of Economic Behavior and Organization 170 (2020) 355–361

Contents lists available at ScienceDirect

Journal of Economic Behavior and Organization

journal homepage: www.elsevier.com/locate/jebo

Institutional inequality and individual preferences for honesty and generosity

Johan Birkelund [a], Todd L. Cherry [b,c,*]

[a] School of Business and Economics, UiT – The Arctic University of Norway, NO-9037 Tromsø, Norway
[b] Department of Economics, Appalachian State University, Boone NC 28608-2051 USA
[c] CICERO Center for International Climate Research – Oslo, P.O. Box 1129 Blindern, 0318 Oslo, Norway

ARTICLE INFO

Article history:
Received 17 February 2019
Revised 14 December 2019
Accepted 16 December 2019
Available online 10 January 2020

JEL Classification:
C9
D1
D2

Keywords:
Cheating
Giving
Inequality
Behavioral economics
Experiments

ABSTRACT

This paper reports on an experiment that investigates how inequality in advantage affects individual preferences for honesty and generosity. In a two-stage experiment, subjects first earn money according to self-reported production, which can include honest and dishonest reports. Subjects then play the dictator game and decide how much, if any, of their earnings to share with an anonymous recipient. Treatments investigate how equal and unequal advantages in production affect the extent of cheating in stage one and the subsequent offers in stage two. When advantage randomly benefits only some of the group, the relatively disadvantaged are significantly more dishonest and exhibit significantly less other-regarding behavior. Considering the interplay between cheating and giving, we find that greater cheating was followed with greater giving. And comparing this relationship across treatments suggests self-justification for dishonest behavior makes subjects feel more entitled to their ill-gotten gains.

1. Introduction

The efficacy of social and economic institutions often depends on social trust (La Porta et al., 1997; Zak and Knack, 2001). Those same institutions however can create contexts that influence people's preferences for honesty (Kimbrough and Vostroknutov, 2016; Rodriguez-Sickert et al., 2008). That preferences for honesty may be institution-specific suggests that the policy choices that define institutions not only matter for the outcomes they generate but also for the society they cultivate.

Research from the behavioral sciences offer important insights about the interplay between institutional fairness and preferences for honesty. Early experimental evidence from psychology indicate that paying subjects less than what they were told to expect leads to more cheating (Greenberg, 1990). Similarly, recent work finds more cheating when earnings are below the expectations set by distributional norms (Galeotti et al., 2017). Beyond expectations, studies also suggest that inequities in earnings can affect the level of cheating. For instance, John et al. (2014) finds that people cheat more when they are aware that other people are earning more for the same task. In a prominent economics experiment, Houser et al. (2012) reports that subjects were more likely to overstate earnings in a self-reported coin-flipping task when they reported

* Corresponding author at: Department of Economics, Appalachian State University, Boone NC 28608-2051 USA.
E-mail addresses: johan.birkelund@uit.no (J. Birkelund), cherrytl@appstate.edu (T.L. Cherry).

https://doi.org/10.1016/j.jebo.2019.12.014
0167-2681/

being treated unfairly in a previous, unrelated dictator game. The findings indicate that individual preferences for honesty are shaped by procedural fairness as well as distributional fairness (e.g., Bolton et al., 2005; Frey et al., 2004; Greiner et al., 2012). It follows that people may self-justify dishonest behavior when their outcomes emerge from an unfair process. If so, cheating will depend on the perceived fairness of the institutions that govern outcomes. While inequality may matter, *how* the inequality materializes also matters.

Herein we conduct a laboratory experiment to contribute to the evidence on the interplay between institutional fairness and preferences for honesty. Following the literature (Friesen and Gangadharan, 2012; Mazar et al., 2008), we use an individual real-effort task to collect individual-level data on dishonesty.[1] We extend this line of inquiry by introducing unearned (i.e., random) institutional inequities. While some subjects completed the task on their own, other subjects benefited from receiving assistance. The question is whether the unearned advantage enjoyed by some, increases the likelihood and magnitude of cheating among those that are relatively disadvantaged. Results may speak to how fairness in our social and economic systems can shape the norms of individual honesty and social trust.

This study also contributes to the growing literature on self-justification and moral balancing. Researchers have argued that people seek to hold their moral self-image constant over time, which may entail balancing good behavior with bad behavior, or vice versa (Nisan and Horenczyk, 1990). We extend the analysis to include an unannounced dictator game as a second stage to the experimental design. Using earnings from the previous individual task, subjects decided how much, if any, of their earnings to give to an anonymous recipient. By introducing an ex post giving stage, we can investigate how the interplay of institutional fairness and cheating affects subsequent giving. In particular, how does cheating affect subsequent giving, but potentially more interesting, how does cheating justified by institutional inequities affect subsequent giving. Any divergent cheating behavior may contribute evidence to the literature on moral balancing.

Results indicate that institutional fairness and inequities shape individual preferences for honesty and giving. In line with the literature on self-justification, we find that people with an undeserving relative disadvantage cheat at significantly higher rates and higher levels. And consistent with moral balancing, people that increased earnings by cheating in turn increased their giving to anonymous recipients. Interestingly, people that appeared to self-justify cheating gave less, which suggests that self-justification for dishonest behavior makes subjects feel more entitled to their ill-gotten gains and less compelled to morally balance their misdeeds.

2. Experimental design

2.1. Baseline framework

The experiment employed a modified real effort dictator game, which allowed for cheating in the effort stage.[2] Following the literature (Mazar et al., 2008), subjects could earn money in the production stage by solving a series of simple mathematical matrix tasks. Each matrix contained 12 three-digit numbers that ranged between 0.00 and 9.99, and to solve, subjects had to identify the unique combination of two numbers that sum up to exactly 10.00. Subjects were provided a sheet of 15 matrices and earned one USD for each matrix solved.

To collect individual level data, we follow a protocol adapted from Friesen and Gangadharan (2012). Subjects were randomly assigned to stations, at which they found materials for the first stage of the experiment. The materials were coded by station and included the instructions, the sheet of matrices, and two envelopes—a *money envelope* with 15 one-dollar bills (USD) and an empty *earnings envelope* that will hold their earnings. Instructions were opened and read aloud. After answering any questions, subjects had five minutes to solve as many matrices as possible. For each solution, subjects were instructed to circle the two numbers on the matrix that summed to 10.00. Subjects were informed that some matrices did not have a solution, which allowed top performers ample opportunity to cheat. At the end of the five-minute period, subjects were provided solutions and instructed to self-report their overall performance at a designated place on the matrix sheet.[3] Subjects then paid themselves by taking their earnings from the money envelope and placing it in the earnings envelope. Any unclaimed money was left in the money envelope. The number of bills taken above the number of matrices correctly solved represents earnings obtained by cheating. Subjects then placed their completed matrices sheet and money envelope in a large envelope and sealed it. The large envelope was inserted in the slot of a closed box that was brought to each subject's station in sequence. It was announced that the box would remain closed until after the session. This concluded the first stage.

The second stage began without delay. Subjects were informed of the second stage only after completing the first stage. Materials, again coded by stations, were provided for the standard dictator game—all playing the role of the dictator. Subjects anonymously decided how much, if any, of their stage one earnings to give to an anonymous recipient that was recruited

[1] Note that most studies on cheating have relied on group-level data, so a strength of this study is that the experimental design draws from Friesen and Gangadharan (2012) to yield individual-level data for the analysis.

[2] In a real-effort dictator game, subjects perform a task to earn their endowment, which they subsequently allocate. To ensure subjects were earning money for themselves, subjects were informed of the allocation decision only after completing the task.

[3] To avoid subjects altering their answers after receiving the solutions, subjects were provided a blue pen with the matrices. They used a blue pen to solve the matrices. When the answers were provided, the blue pen was collected and a red pen was provided. They used the red pen for the remaining tasks.

from the subject pool. Using an *offer envelope* provided with the instructions, dictators put their offer in the offer envelope and kept the remaining money in their earnings envelope. Subjects were then called individually to leave the room. They inserted the offer envelope in the slot of the same closed box. Within 48 h, the contents of the envelopes were recorded and delivered to recipients in a separate pre-scheduled session.

The experiment was conducted at Appalachian State University with a total of 192 subjects in one of eleven sessions. Each of these sessions lasted about 40 min. Dictators earned about 14 USD, which included a 5 USD participation payment. Recipients in the dictator game were randomly selected from the subject pool, and did not participate in the experiment, other than receiving the offers ex post.

2.2. Treatments

The experiment followed a 2 × 2 design with two treatment variables—*advantage* (yes or no) and *equal* (yes or no). In the advantage treatments, subjects with *no advantage* solved the matrices without assistance. Subjects with *advantage* solved the matrices with the help of marks that indicated the solutions. Put simply, advantaged subjects were essentially provided solutions, while the disadvantaged subjects were not.[4] This extreme case of advantage provides ample salience for possible treatment effects.

In the equal treatments, subjects in the *equal* condition had the same advantage status as their peers—i.e., other subjects in the session. The status was common knowledge. Subjects in the *unequal* condition did not share the same advantage status as their peers. Subjects knew that half of the session's participants were randomly determined to have *advantage*, with the other half randomly determined to have *no advantage*. Thus, subjects in the unequal condition knew whether they were relatively advantaged or disadvantaged.

The experimental design yields three treatments and four fairness conditions. The *equal no advantage* treatment serves as the baseline—*all* subjects in the session solved the matrices without assistance. The *equal advantage* treatment introduces an evenly shared advantage—*all* subjects in the session solved the matrices with assistance. The *unequal advantage* treatment introduces inequality in advantage and creates an uneven playing field that yields two conditions for subjects. For the *unequal advantage* condition, subjects have assistance with solving matrices when others do not. For the *unequal no advantage* condition, subjects solve the matrices without assistance when others have assistance. Again, the treatments, equal or advantaged, were common knowledge. The unequal treatment therefore creates unearned inequities that raise fairness concerns. Comparisons will reveal the potential impact of advantage, equal and unequal, on the tendency to cheat in stage one and exhibit pro-social behavior in stage two.

2.3. Hypotheses

From the 2 × 2 experimental design, we organize the primary research questions by the decisions in the two stages of the experiment—two for each stage. The first stage, in which we observe possible cheating, allows us to consider how advantage and relative advantage affects individual preferences for honesty. We note the advantage treatments are defined by institutional unfairness, which encompasses both the assistance and resulting benefits of the randomly assigned advantage treatments. The design does not disentangle the individual components of the unfairness, though previous work shows the influence of unequal effort and opportunity dominate that of unequal budgets (e.g., Cherry and Shogren, 2008).

The first research question is whether absolute advantage affects cheating, which is informed by testing the null that cheating is equivalent across the equal no advantage and the equal advantage treatments. Gravert (2013) reports that more demanding tasks lead to more cheating, so we expect less cheating in the equal advantage treatment than in the equal no advantage treatment. The second research question considers how relative advantage may impact cheating. We test the null that cheating in the unequal no advantage treatment is equivalent to cheating in equal no advantage treatment. From the literature on self-justification (e.g., Shalvi et al., 2011), we expect cheating to be more prevalent among the relatively disadvantaged subjects.

The second stage of the experiment, in which we observe giving, provides opportunities to examine possible linkages between cheating and giving across institutional contexts. We again note that, given that the second stage depends on decisions in the first stage, giving behavior is conditional and should be interpreted as such. The third research question is whether correlations of individual cheating and giving behaviors are consistent with moral balancing—offsetting past immoral acts with subsequent moral acts (moral cleasing) and offsetting past moral acts with subsequent immoral acts (moral licensing). We address this research question by conducting a conditional analysis to test the null that there is no relationship between an individual's level of cheating in stage one and her level of giving in stage two. Moral balancing suggests that subjects that increase earnings by cheating will offset that behavior with greater giving. Thus, we expect that cheating will have a positive effect on subsequent giving. A fourth research question is how the relationship between cheating and giving differs across the treatments that vary institutional fairness. To the extent that self-justification of cheating varies across institutional fairness, we expect to observe corresponding variation in moral balancing. Specifically, in the equal treatments,

[4] A keen reviewer pointed out that subjects in the no advantage treatments knew some matrices did not have solutions while subjects in the advantage treatments could infer exactly how many matrices did not have solutions. Any possible confounding effect does not affect the analyses that speak to the primary research questions.

Table 1
Production and fraudulent behavior by treatment.

	Equal		Unequal		
	No Advantage	Advantage	No Advantage	Advantage	Pooled
Production					
Actual	4.52	9.54	3.51	9.87	6.84
	(2.56)	(1.22)	(2.19)	(0.45)	(3.39)
Reported	6.52	10.08	9.57	10.32	9.09
	(3.63)	(1.65)	(5.47)	(1.38)	(3.76)
Over-reported	2.00	0.54	6.06	0.45	2.25
	(3.53)	(1.35)	(5.21)	(1.27)	(3.96)
Fraud Rates					
Take Some	38.00	16.67	70.21	17.02	35.42
	(49.03)	(37.66)	(46.23)	(37.99)	(47.95)
Take All	6.00	4.17	42.55	6.38	14.58
	(23.99)	(20.19)	(49.98)	(24.71)	(35.39)
% Taken	17.53	9.64	54.45	8.94	22.49
	(29.03)	(25.24)	(44.77)	(25.30)	(36.80)
N	50	48	47	47	192

Note: Standard Deviation in parenthesis.

we expect subjects that cheated in the first stage to moral balance (i.e., moral cleansing) their cheating with relatively high giving in the second stage. However, in the unequal no advantage condition, subjects may not engage in moral balancing because they self-justify their cheating in the first stage. Thus, we expect relatively low offers from the dishonest subjects in the unequal no advantage condition.

3. Results

3.1. Stage one: cheating

The top section of Table 1 provides the actual and self-reported performance on the matrix task by treatment. Fig. 1 complements the numbers with a visual comparison of actual and self-reported earnings by treatment. Overall, subjects correctly solved an average of 6.84 matrices, but they self-reported solving 9.09 matrices. Thus, across all treatments, subjects overreported their performance by 2.25 solutions or 32.9%. The bottom section of Table 1 provides additional measures of fraudulent behavior.[5] The numbers show that 35.4% of all subjects over-reported to some extent (i.e., 65% were honest). About 15% of subjects maximized over-reporting. And, on average, subjects only collected 22.49% of the potential fraudulent takings. This corresponds well to previous reports in the literature (e.g., Rosenbaum et al., 2014). To address the two research questions for stage one, we look at the numbers by treatment.

The first research question offers an introductory step by considering whether absolute advantage affects cheating. Focusing on the equal treatments in Table 1, we compare the advantage and no advantage treatments. As expected, actual performance was significantly higher in the advantage treatment than in the no advantage treatment (9.54 vs. 4.52; $p<0.001$).[6] The advantage treatment, in turn, appears to have significantly reduced the level of over-reporting relative to the no advantage treatment (0.54 vs. 2.0; $p = 0.013$). Further, the numbers show that, relative to the equal no advantage treatment, the introduction of equal advantage lowers the rate of cheating (38.0 vs. 16.7; $p = 0.019$), lowers the rate of maximal cheating (6.0 vs. 4.2; $p = 0.682$), and reduces the average share taken (17.5 vs. 9.6; $p = 0.031$). The collection of findings indicates that absolute advantage reduces over-reporting, which follows previous reports that less demanding tasks lead to less cheating (Gravert, 2013). However, we note this finding also may reflect that advantaged subjects inherently have more knowledge about matrices without a solution.

The second research question presents a key hypothesis for this study: do institutional inequities affect individual preferences for honesty. In our setting, we consider if over-reporting is significantly different when the lack of advantage is a relative disadvantage—equal no advantage vs. unequal no advantage. From Table 1, we first note that subjects with a relative disadvantage (i.e., unequal no advantage) had lower actual performance than those with an absolute disadvantage (i.e., equal no advantage)—3.51 vs. 4.52 ($p = 0.052$). This is consistent with previous work reporting that effort is negatively impacted by unfairness.[7] Moving to the research question, a review of the two no advantage treatments shows that relative advantage matters. Table 1 reports that, among subjects with no advantage, those in the unequal treatment over-reported a great deal more than those in the equal treatment (6.06 vs. 2.0; $p<0.001$). Additionally, among subjects with no advantage, subjects in the unequal treatment exhibited a higher rate of cheating (70.2 vs. 38.0; $p = 0.002$), a higher rate of maximal cheating

[5] Note that we report alternative metrics (e.g., binary variables, means, rates, etc.) to mitigate concerns that results are driven by the higher earnings in the advantaged treatments.

[6] All tests reported, are two-sided Wilcoxon rank-sum tests. Results were similar when using Welch's *t*-tests.

[7] For instance, Gächter and Thöni (2010) finds a significant reduction in effort, when workers are paid less than their peers for the same task.

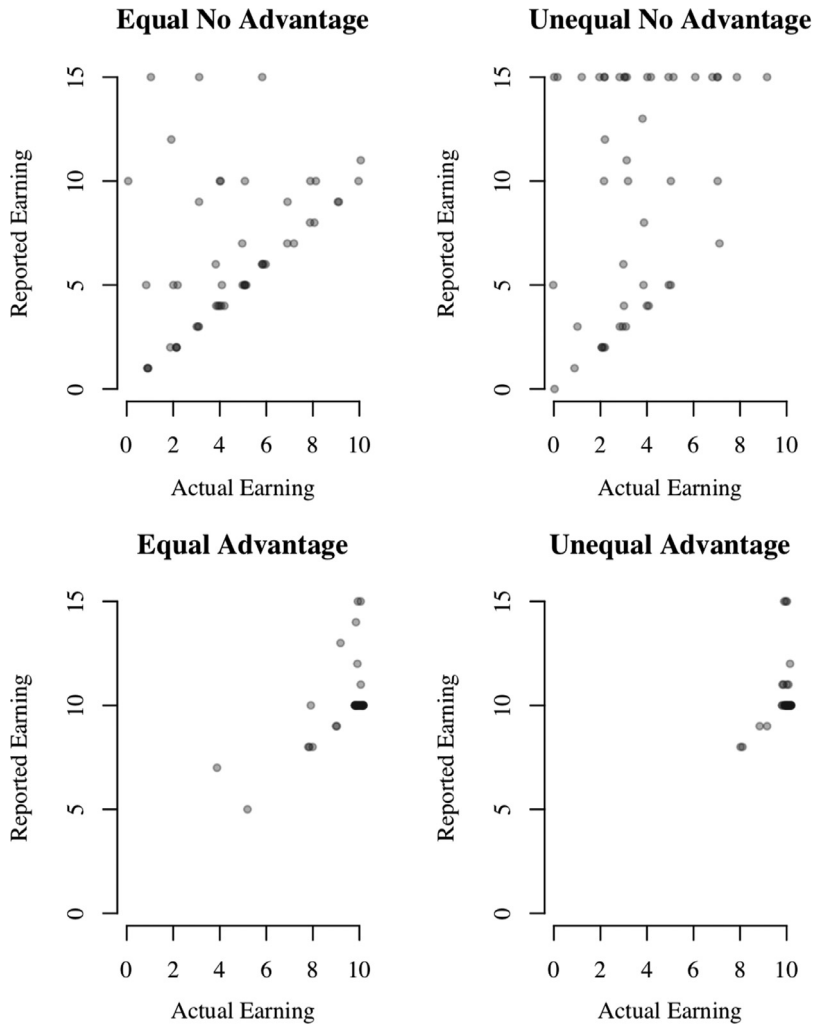

Fig. 1. Scatterplot of reported and actual earnings by treatment.

(42.6 vs. 6.0; $p<0.001$), and took more of the available fraudulent earnings (54.5 vs. 17.5; $p<0.001$). Conversely, subjects with advantage behave similarly whether the advantage is shared equally or not. The tests provide compelling evidence that institutional fairness affects individual preferences for honesty. Tests indicate that unequal advantage can lead to greater cheating among the relatively disadvantaged. This finding corresponds to previous studies that context matters (e.g., Cherry and Shogren, 2008) and is consistent with the notion that people self-justify dishonest behavior (Shalvi et al., 2011).

3.2. Stage two: giving

Table 2 reports the giving behavior observed in stage two of the experiment. We follow the literature and report four measures of giving by treatment—the overall mean offer, the percentage of dictators that made a positive offer, the percent of offers that were equal splits, and offer as a percentage of total earnings. Across all treatments, the mean offer was 1.14. About 40% of subjects made a positive offer, and 5.2% offered an equal split. Subjects, on average, offered 11.2% of their earnings. In general, offers from our subjects correspond with previous dictator games in the literature. Reviewing the data by treatment indicates that absolute advantage tends to increase offers and introducing relative advantage leads to higher offers among the advantaged and lower offers among the disadvantaged. These findings follow previous reports that unearned gains are given away more freely (Cherry et al., 2002) and unearned inequality affects giving (Korenok et al., 2012). We now disaggregate the data to investigate the two research hypotheses for stage two.

The third research question considers if observed behavior across stage one and two (cheating and giving) is consistent with moral balancing—i.e., do subjects offset cheating in stage one with giving in stage two? We estimate a simple regression model of giving, where the offer amount is a function of legitimate and fraudulent earnings conditioned on the treatment.

Table 2
Dictator behavior by treatment.

	Equal		Unequal		
	No Advantage	Advantage	No Advantage	Advantage	Pooled
Mean Offer ($)	0.76	1.38	0.51	1.91	1.14
	(1.39)	(1.67)	(1.23)	(1.90)	(1.65)
Positive Offer (%)	32.00	52.08	19.15	59.57	40.63
	(47.12)	(50.49)	(39.77)	(49.61)	(49.24)
Equal Split (%)	6.00	4.17	0.00	10.64	5.20
	(23.99)	(20.19)	(0.00)	(31.17)	(22.28)
Offer pct. of Total Earning (%)	9.22	13.20	3.78	18.49	11.19
	(15.23)	(15.44)	(8.80)	(17.95)	(15.61)
N	50	48	47	47	192

Note: Standard deviation in parenthesis.

Table 3
OLS estimates of offer model.

	Pooled	Equal No Advantage	Equal Advantage	Unequal No Advantage	Unequal Advantage
Constant	0.326	0.096	−0.845	−0.122	0.932
	(0.367)	(0.786)	(0.655)	(0.760)	(0.882)
Legitimate Earnings	0.025	0.026	0.208	0.035	0.088
	(0.685)	(0.676)	(0.289)	(0.662)	(0.890)
Fraudulent Earnings	0.161	0.273	0.444	0.084	0.252
	(0.000)	(0.000)	(0.014)	(0.016)	(0.267)
Equal Advantage	0.727	–	–	–	–
	(0.088)				
Unequal No Advantage	−0.880	–	--	--	–
	(0.009)				
Unequal Advantage	1.274	–	–	–	–
	(0.000)				
F	9.78	20.01	3.43	3.19	0.67
R^2	0.208	0.460	0.132	0.127	0.029
N	192	50	48	47	47

Notes: dependent variable is $-amount of offer; estimated treatment effects are relative to the omitted equal-no-advantage treatment; p-value are reported in parentheses.

Results are reported in Table 3. From the pooled model, estimates reveal a significant positive relationship between fraudulent earnings and giving ($p<0.001$). This is in contrast to the absence of a relationship between legitimate earnings and giving ($p = 0.685$). We note this general finding is quite consistent across the treatment-specific models. Estimates therefore suggest that greater cheating in stage one is associated with more giving in stage two, which is consistent with moral balancing. In this case, people acted to balance past immoral behavior with a current moral behavior (Conway and Peetz, 2012; Jordan et al., 2011).

To address the fourth research question, we move to the treatment-specific models to consider how institutional fairness affects moral cleansing behavior. The conjecture is that moral balancing will be less prevalent when people justify immoral behavior because of institutional unfairness. When unfairness justifies dishonest behavior, there is little need for moral cleansing. In our setting, subjects randomly assigned a relative disadvantage (unequal no advantage) may perceive their relative position as unfair, and if so, they may self-justify their cheating and have no need for moral balancing. Thus, relative to the other treatments, fraudulent earnings in the relatively disadvantaged condition (i.e., unequal no advantage) will have a smaller effect on second stage giving.

Results are consistent with the conjecture. In the two equal treatments, the level of cheating (i.e., fraudulent earnings) in stage one led to significantly more giving in stage two. Interestingly, the magnitude of the effect was considerably higher in the advantage treatment, which is likely due to the relative ease and size of stage one earnings. Moving to the unequal treatments, estimates show that fraudulent earnings has a smaller effect on subsequent giving. In the unequal no advantage condition (i.e., relatively disadvantaged), the estimated coefficient is substantially lower than the other treatments. Relative to equal no advantage treatment, the estimated effect is about 65% smaller—0.084 vs. 0.273. We note the insignificance of the estimated coefficient in the unequal advantage model, which is due to the relatively large standard error. From the treatment-specific models, we find additional evidence for the conjecture that people will not be compelled to offset previous cheating (i.e., moral balancing) if the institutional unfairness justifies the cheating. Institutional unfairness appears to not only motivate people to self-justify bad behavior but also diminishes their desire to morally cleanse bad behavior.

4. Conclusion

Studies provide overwhelming evidence that behavior is context-dependent. It follows that behavior is dependent on the social and economic institutions that shape the processes and outcomes that define contexts. This paper examines the role of institutional fairness on preferences for honesty, and by examining connections between cheating and subsequent giving; it considers the interplay between self-justification and moral balancing. Findings correspond to previous reports that effort and inequality can influence cheating and giving behavior, but the results also offer new insights on how institutional fairness affects these behaviors.

Our results offer strong evidence that preferences for both honesty and giving are shaped by institutional fairness. We note three main findings from our study. First, in accordance with previous reports that people self-justify dishonest behavior when facing an unfair situation, we find that people with a relative disadvantage engage in considerably more cheating, both in propensity and magnitude. Second, when considering the relationship between cheating and giving, we observe behavior in line with moral balancing (e.g., Ploner and Regner, 2013; Gneezy et al., 2014). People that earned more from cheating subsequently made more generous offers to anonymous recipients. Third, we find that the relationship between cheating and giving varies according to institutional fairness. When the playing field is uneven, people with a relative disadvantage cheat considerably more and give considerably less. Thus, relatively disadvantaged subjects appear to not only self-justify their decision to cheat, but they also feel more entitled to their ill-gotten gains.

The findings speak to current debates on inequities in economic opportunity and mobility, which depend on our social and economic institutions. Results contribute to the growing evidence that institutions not only matter for the rules they impose but also for the contexts they create. The interaction between inequality and fairness can dictate the legitimacy of outcomes and therefore shape individual behavior, such as cheating and giving, which has implications for broader social and economic well-being.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

We appreciate the helpful comments received from Agne Kajackaite, Abhijit Ramalingam, Brock Stoddard, and participants of the 6th Spring School in Behavioral Economics at UCSD and the 2018 ESA World Meeting in Berlin. Two reviewers and the editor also provided valuable comments. This research was funded by the Walker College of Business at Appalachian State University.

References

Bolton, G.E., Brandts, J., Ockenfels, A., 2005. Fair procedures: evidence from games involving lotteries. Econ. J. 115 (506), 1054–1076.
Cherry, T.L., Frykblom, P., Shogren, J.F., 2002. Hardnose the dictator. Am. Econ. Rev. 92 (4), 1218–1221.
Cherry, T.L., Shogren, J.F., 2008. Self-interest, sympathy and the origin of endowments. Econ. Lett. 101 (1), 69–72.
Conway, P., Peetz, J., 2012. When does feeling moral actually make you a better person? Conceptual abstraction moderates whether past moral deeds motivate consistency or compensatory behavior. Person. Soc. Psychol. Bull. 38 (7), 907–919.
Frey, B.S., Benz, M., Stutzer, A., 2004. Introducing procedural utility: not only what, but also how matters. J. Inst. Theor. Econ. JITE 160 (3), 377–401.
Friesen, L., Gangadharan, L., 2012. Individual level evidence of dishonesty and the gender effect. Econ. Lett. 117 (3), 624–626.
Galeotti, F., Kline, R., Orsini, R., 2017. When foul play seems fair: exploring the link between just deserts and honesty. J. Econ. Behav. Organ. 142, 451–467.
Gneezy, U., Imas, A., Madarász, K., 2014. Conscience accounting: emotion dynamics and social behavior. Manag. Sci. 60 (11), 2645–2658.
Gravert, C., 2013. How luck and performance affect stealing. J. Econ. Behav. Organ. 93, 301–304.
Greenberg, J., 1990. Employee theft as a reaction to underpayment inequity: the hidden cost of pay cuts. J. Appl. Psychol. 75 (5), 561.
Greiner, B., Ockenfels, A., Werner, P., 2012. The dynamic interplay of inequality and trust—an experimental study. J. Econ. Behav. Organ. 81 (2), 355–365.
Gächter, S., Thöni, C., 2010. Social comparison and performance: experimental evidence on the fair wage–effort hypothesis. J. Econ. Behav. Organ. 76 (3), 531–543.
Houser, D., Vetter, S., Winter, J., 2012. Fairness and cheating. Eur. Econ. Rev. 56 (8), 1645–1655.
John, L.K., Loewenstein, G., Rick, S.I., 2014. Cheating more for less: upward social comparisons motivate the poorly compensated to cheat. Organ. Behav. Hum. Decis. Process. 123 (2), 101–109.
Jordan, J., Mullen, E., Murnighan, J.K., 2011. Striving for the moral self: the effects of recalling past moral actions on future moral behavior. Person. Soc. Psychol. Bull. 37 (5), 701–713.
Kimbrough, E.O., Vostroknutov, A., 2016. Norms make preferences social. J. Eur. Econ. Assoc. 14 (3), 608–638.
Korenok, O., Millner, E.L., Razzolini, L., 2012. Are dictators averse to inequality? J. Econ. Behav. Organ. 82 (2–3), 543–547.
La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1997. Trust in large organizations. Am. Econ. Rev. 87 (2), 333.
Mazar, N., Amir, O., Ariely, D., 2008. The dishonesty of honest people: a theory of self-concept maintenance. J. Mark. Res. 45 (6), 633–644.
Nisan, M., Horenczyk, G., 1990. Moral balance: the effect of prior behaviour on decision in moral conflict. Br. J. Soc. Psychol. 29 (1), 29–42.
Ploner, M., Regner, T., 2013. Self-image and moral balancing: an experimental analysis. J. Econ. Behav. Organ. 93, 374–383.
Rodriguez-Sickert, C., Guzmán, R.A., Cárdenas, J.C., 2008. Institutions influence preferences: evidence from a common pool resource experiment. J. Econ. Behav. Organ. 67 (1), 215–227.
Rosenbaum, S.M., Billinger, S., Stieglitz, N., 2014. Let's be honest: a review of experimental evidence of honesty and truth-telling. J. Econ. Psychol. 45, 181–196.
Shalvi, S., Dana, J., Handgraaf, M.J., De Dreu, C.K., 2011. Justified ethicality: observing desired counterfactuals modifies ethical perceptions and behavior. Organ. Behav. Hum. Decis. Process. 115 (2), 181–190.
Zak, P.J., Knack, S., 2001. Trust and growth. Econ. J. 111 (470), 295–321.