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Robert J. Schmidt, Christiane Schwieren,
and Martin Vollmann

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Robert J. Schmidt[1], Christiane Schwieren[1*], and Martin Vollmann[1]

[1] *Department of Economics, Bergheimer Strasse 58, Heidelberg University, Germany*

Abstract

Depending on the context at hand, people's preference for receiving feedback might differ. Especially in allocation decisions that directly concern another individual, feedback from the affected person can have positive or negative value. We study such preferences in a laboratory experiment by eliciting the willingness-to-pay to receive or to avoid verbal feedback from subjects that were previously affected by an allocation decision. We find that most decision makers exhibit a positive willingness-to-pay for having control about whether feedback occurs or not. Specifically, decision makers that equally shared their endowment with the recipient revealed a positive willingness-to-pay for receiving, but not for avoiding feedback. By contrast, among decision makers that behaved selfishly, we identify both: subjects that were willing to pay for receiving and subjects that were willing to pay for avoiding feedback. The stated motivations indicate that curiosity, the desire to receive social approval and giving the recipient the chance to express his/her feelings are the main reasons for feedback acquisition, while shame and fear of negative feedback are the main reasons for avoidance.

Highlights:

- We measure the willingness-to-pay to get (avoid) feedback in allocation situations
- Both preferences for acquisition and avoidance of feedback are observed
- Curiosity, social (dis)approval and emotion expression explain the pattern

Keywords: feedback; communication; non-instrumental information; social preferences; information avoidance; curiosity

JEL: D03, D83, C91, C78

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* Corresponding author: Alfred-Weber-Institute for Economics, University of Heidelberg, Bergheimer Strasse 58, 69115 Heidelberg, Germany; Phone: +49 6221 54 2953; email: christiane.schwieren@awi.uni-heidelberg.de.

1. Introduction

It is commonly observed that people have preferences for getting or avoiding feedback in various contexts. For example, people do not want to get to know the true results of a medical test they decided to do (e.g., Lyter et al. (1987)). In our study, we investigate, whether such behavior can also be found in allocation decisions, where the salience of a particular decision potentially affects self-image. Therefore, we conducted a simple two-stage experiment to examine how the valuation of verbal feedback depends on a subject´s previous behavior. In the first stage, subjects played a mini-dictator game (MDG) in which the decision maker could choose between a "fair" option and an "unfair" option. In the second stage, the dictator had to decide whether or not he/she prefers to receive feedback from the recipient. We conducted two treatments in order to measure the valuation for reception as well as for avoidance of feedback. In the former, participants had to *pay to get* feedback whereas in the latter participants had to *pay to avoid* feedback.

Our study contributes to the more recent literature on preferences for non-instrumental communication and non-instrumental information.[1] For example, it has been shown that individuals tend to acquire costly but non-instrumental information for several reasons. Thereby, the most common motives are: the satisfaction of curiosity (Loewenstein, 1994), the pleasure of knowledge and insight (Karlsson et al., 2004), and reshaping their beliefs in a favorable manner (Eil and Rao, 2011; Karlsson et al., 2009).[2] Likewise, individuals sometimes willfully ignore information about negative consequences of their own actions on others or on the environment (Dana et al., 2007; Feiler, 2014; Hertwig and Engel, 2016; Norgaard, 2006; Stoll-Kleemann et al., 2001).[3]

Our paper is not the first to examine communication in allocation situations.[4] Xiao and Houser (2007) as well as Ellingsen and Johannesson (2008) found that the expectation of ex-post verbal feedback from the recipient increases generosity in dictator games and concluded that communication influences behavior besides its instrumental content. Similarly,

[1] This literature contrasts the traditional economic view that individuals only care for information if it is instrumental, i.e., if it helps maximizing material payoff. Common examples refer to using information to optimize decision-making (Stigler, 1961) or to coordinate actions with others (Crawford and Sobel, 1982).

[2] Such results led to the conclusion, that information communication is not only valued for instrumental reasons, but directly enters an agent's utility function (Bénabou and Tirole, 2006; Golman and Loewenstein, 2015; Loewenstein and Molnar, 2018). In a recent study, Alós-Ferrer et al. (2018) provide evidence that curiosity about the own performance can trump inequality aversion. Curiosity has also been found to contribute to explaining the endowment effect (van de Ven et al. (2005)

[3] Another related strand of literature is about the avoidance of instrumental information. This phenomenon is particularly known from the field of medicine, where patients sometimes choose not to take medical tests or avoid getting to know a test result, even when taking the test is not associated with material cost or when the result would lead to valuable information for future decisions (Lerman et al. (1996); Lerman (1999); Lyter et al. (1987)).

[4] In this study, we use the terms feedback, communication and information equivalently.

Langenbach (2016) and Bruttel et al. (2017) found that pre-play communication increases the dictator´s share allotted to the recipient in subsequent dictator games. The effect of communication on allocation behavior has also been studied in bargaining environments. Xiao and Houser (2005) conducted an ultimatum game that was extended to allow responders to ex-post send a free written message to the proposer in case of acceptance of the allotted share. They found that rejection rates for small offers (20 percent of the pie or less) decreased significantly. The authors concluded that the possibility of displaying disapproval might be a satisfying form of retaliation that substitutes punishment by simply rejecting the offer. As a consequence, economic models started to integrate such preferences by attributing them to concerns of self-image (Bénabou et al., 2018; Bénabou and Tirole, 2006; Bodner and Prelec, 2003; Grossman and van der Weele, 2017). That is, subjects trade off utility from material gains with potential disutility caused by deterioration of how they evaluate themselves. We contribute to this body of literature by experimentally examining how people manage the acquisition, or respectively avoidance, of information that is likely to affect their self-image.

In particular, we follow Grosskopf and López-Vargas (2014) and Langenbach (2016) with regard to the valuation of verbal feedback. Both examined recipients' preferences for sending messages to an individual who previously affected them in an allocation decision. Grosskopf and López-Vargas (2014) used a power-to-take game and found a positive willingness-to-pay (WTP) for sending messages to the taker afterwards. Langenbach (2016) studied ex-ante and ex-post communication in dictator games and found that recipients exhibit a positive WTP for both types of communication. Based on that, our experiment fills an important gap by studying the opposite direction of those experiments. Specifically, instead of examining the recipients´ preferences to give feedback about the decision makers´ behavior, we shed light on the decision makers´ preferences to receive or to avoid feedback about his/her own behavior.

Following the literature on curiosity and self-image, we hypothesize that dictators who equally share with the responder will only exhibit a WTP for receiving feedback and not for avoiding. On the contrary, for dictators that behave selfishly in the allocation situation, we hypothesize that both acquisition and avoidance of feedback will be observed, as they have to trade off preferences for the satisfaction of curiosity with the desire to avoid the reception of social disapproval.

In accordance with our hypotheses, we find that most decision makers exhibit a positive WTP for having control about receiving or avoiding feedback. Precisely, egalitarian decision makers reveal a positive WTP for receiving, but not for avoiding feedback. By contrast, among selfish decision makers we identify a fraction that pays for getting as well as a fraction that pays

for avoiding feedback. Asking subjects about the underlying motives indicates that curiosity, the anticipation of social approval and a preference for giving the recipient the chance to express his/her feelings are the main driving forces for feedback acquisition. By contrast, the fear of receiving social disapproval as well as shame and guilt are the main motivations to avoid receiving feedback from the recipient.

2. Experimental design, procedures and hypotheses

2.1. Design

At the beginning of the experiment, subjects were randomly assigned to the roles of dictators and recipients and subsequently matched in pairs.[5] The interaction between subjects was performed in two stages. In the first stage, subjects played a MDG in which dictators had to decide how to allocate €10 between themselves and the respective recipient. Each dictator could choose between a "fair" allocation (€5 for the dictator and €5 for the recipient) and an "unfair" allocation (€8 for the dictator and €2 for the recipient).[6] Participants took this decision, knowing that feedback could potentially be distributed. In the second stage of the experiment, the dictator determined whether the recipient was given the possibility to give verbal feedback to him/her or not. Specifically, subjects were informed that feedback would take the form of a verbal message written freely, formulated by the recipient after knowing about the outcome of the MDG, and transmitted subsequently to the dictator. We framed the potential occurrence of feedback as "a possibility for the recipient to express his/her thoughts and feelings about the dictator's behavior in the previous allocation situation".

We applied two treatments between subjects, *pay to get* and *pay to avoid*, in which we varied the status quo of feedback.[7] In *pay to get*, the default was that dictators would *not receive* a message by the recipient and had to pay to get feedback. Vice versa, in *pay to avoid*, the default was that dictators would *receive* a message and had to pay if they wanted to avoid it. The actual price for getting or avoiding feedback was initially unknown and drawn from a uniform distribution between €0.00 and €1.00. To elicit the dictators´ WTP to get, or respectively, to avoid feedback, we used the Becker-DeGroot-Marschak (BDM) method (Becker et al., 1964).[8] For that purpose, all subjects were equipped with an endowment of €1 at

[5] Throughout the whole instructions, the role of the dictators was referred to as "Player A" and the role of the recipients as "Player B".
[6] For the ease of reading this paper, we label subjects choosing the egalitarian option as "fair dictators" and subjects choosing the selfish option as "unfair dictators".
[7] A control treatment where no feedback occurs is thus not necessary, as we are not primarily interested in the allocation behavior per se.
[8] The BDM is an incentive compatible method to measure a subject´s willingness-to-pay.

the beginning of the experiment. If the stated WTP was at least as high as the actual price, a switch from the status quo was implemented. In this case, the initial endowment was reduced by the price. Otherwise, the status quo remained unchanged and the subject did not incur any costs.

If feedback was enabled, the recipients had three minutes to write a verbal message, which was subsequently displayed on the dictators´ computer screen for another three minutes without the possibility to leave the stage or switch the screen. While recipients entitled to formulate feedback wrote their messages, the remaining recipients, as well as all the dictators, had to copy a small, neutral text. We implemented this for two reasons: First, we did not want to give the recipients the opportunity to express their feelings in any way, even if the message is not transmitted. Second, we wanted to make sure that it is not identifiable who formulates a message by the sound of typing.

To explore emotional changes between stages, we elicited levels of well-being and arousal at three points during the experiment using a 9-point SAM-scale from Bradley and Lang (1994).[9] First, immediately after the experiment had begun, second, after the allocation decisions had been implemented and revealed, and third, after the messages had been written and received. Finally, at the end of the experiment, we asked the dictators about their motivation for their bidding behavior and simultaneously the recipients stated their beliefs about the underlying motivations of the dictator´s behavior.

2.2. Procedures

The experiment was computerized using z-Tree (Fischbacher, 2007) and run at the experimental laboratory of Heidelberg University. Participants were recruited using HROOT (Bock et al., 2014) and we conducted fourteen sessions between June 2016 and November 2017 with a total of 234 subjects. 118 subjects (59 pairs) participated in *pay to get* and 116 (58 pairs) in *pay to avoid*. The average age was 23.26 years. 57% of the subjects were females and 27% of the participants studied in an economic field. A session took about 30 minutes and subjects earned €7.98 on average, including a show-up fee of €2.

2.3. Hypotheses

We derived our hypotheses based on the literature on curiosity and on self-image. This literature suggests that subjects exhibit an intrinsic demand to learn about the unknown, *independently*

[9] The SAM-scale is a pictorial, non-verbal measure to elicit different dimensions of emotions. See the appendix for the pictograms we used in the experiment.

from its content (Golman and Loewenstein, 2015; Laffont, 1989; Loewenstein, 1994). As a result, satisfying curiosity would *always* have a positive effect on the agent´s utility. We thus hypothesize that subjects are curious about the recipients´ reactions and we assume that curiosity is satisfied when feedback is given, and it remains unsatisfied when feedback is not given. Second, a growing body of evidence suggests that individuals like having a positive self-image and dislike factors that threaten its maintenance (Bénabou and Tirole, 2006; Grossman and van der Weele, 2017; Loewenstein and Molnar, 2018). Consequently, they like (dislike) the reception of feedback, given that they expect it to contain social approval (disapproval). In the given setting, we assume that dictators anticipate receiving social approval when they behaved fairly in the allocation situation and that they anticipate receiving social disapproval, when they behaved selfishly. Consequently, agents prefer receiving feedback when they behaved fairly, and they prefer avoiding feedback, when they behaved selfishly. Based on these two strands of literature, we formulate Hypothesis 1, for fair dictators and Hypothesis 2 for unfair dictators.

Hypothesis 1. *Fair dictators exhibit a positive WTP to get, but not to avoid feedback from the recipient.*

Hypothesis 1 reflects the idea that fair dictators exhibit a preference to satisfy their curiosity about the recipients' reactions as well as a preference to receive social approval. We therefore expect that for fair dictators, these preferences translate into a positive WTP to get feedback. For those reasons, we expect no positive WTP to avoid feedback.

Hypothesis 2. *Unfair dictators exhibit a positive WTP to get, and to avoid feedback from the recipient.*

Hypothesis 2 reflects the idea that unfair dictators trade off utility from satisfying their curiosity with the anticipated detrimental effects on self-image. That is, some of them will be more concerned with curiosity than with self-image and will therefore pay to receive feedback from the recipient. As a result, we expect a positive share of unfair dictators to exhibit a WTP to get feedback. On the other hand, there will be some, for which the anticipated effects on self-image are more important than the desire to satisfy their curiosity about the recipient's reaction. We therefore hypothesize that among unfair dictators there will be a fraction of subjects that exhibit a positive WTP to avoid feedback.

3. Results

3.1. Allocation behavior

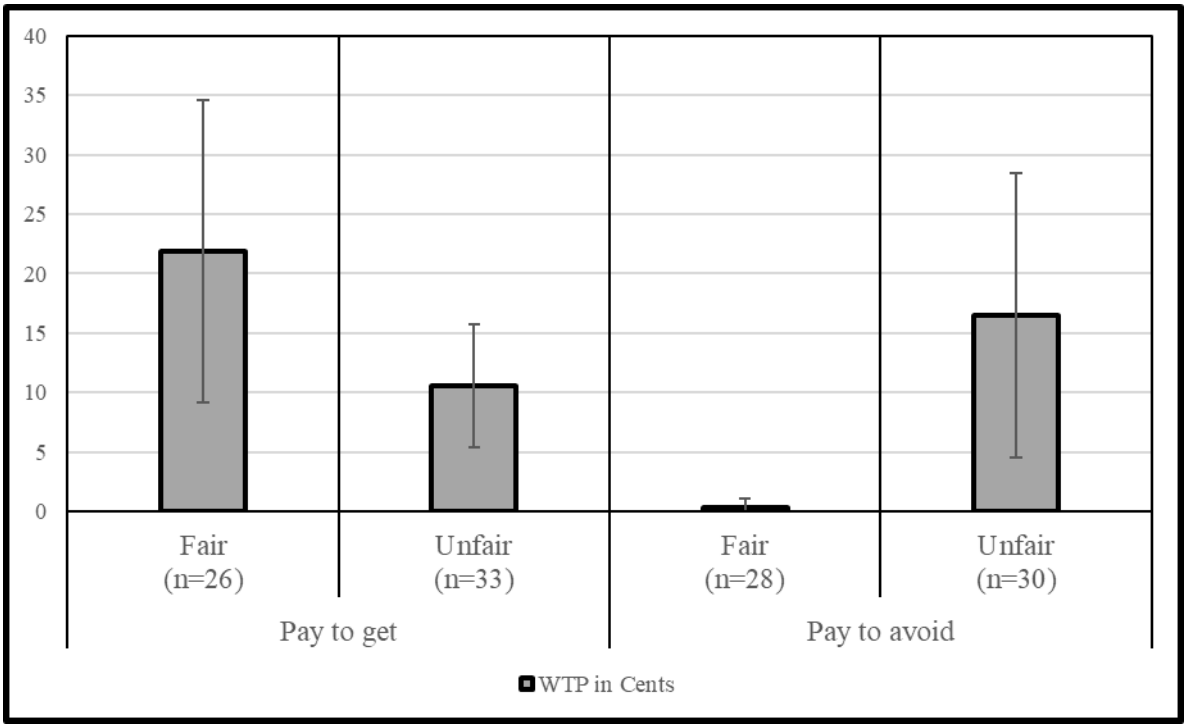
Overall, we had 117 dictators in both treatments. The dictators' choices in the allocation stage do not differ between the two treatments ($z = 0.455$, $p = 0.649$, two-sided Mann-Whitney U test (MWU)). Moreover, we find overall no preference of one over the other allocation option ($p = 0.460$, two-sided binomial test). By contrast, recipients expect the dictator to select the unfair option significantly more often ($p < 0.001$, two-sided binomial test). Conducting regression analyses on allocation behavior, including controls for gender and economics study subject, we find that only dictators studying economics choose the selfish allocation significantly more often (see Appendix, Table 6).

3.2. Hypothesis testing

We find that dictators exhibit a positive WTP for the reception of feedback in *pay to get*, independent of their choice in the allocation stage (Figure 1)[10]. This constitutes support for Hypotheses 1 and 2. Furthermore, the WTP does not differ between subjects that chose the fair or the unfair option ($n = 59$, $z = -1.196$, $p = 0.232$, MWU). In *pay to avoid*, we find that unfair dictators exhibit a positive WTP to avoid feedback, while we find no positive WTP to avoid feedback for fair dictators (Figure 1). This again supports Hypotheses 1 and 2. Furthermore, we find that unfair dictators exhibit a significantly higher WTP to avoid feedback compared to fair dictators ($n = 58$, $z = 2.494$, $p = 0.013$, MWU). Table 1 shows a regression, which supports our findings, while considering all control variables.

[10] For all WTP's in Figure 1 we also run one-sided t-tests, which were significant with $p < 0.01$, except for fair dictators in the pay to avoid treatment ($p = 0.163$). Nevertheless, due to the sample size, we focus on the confidence intervals to be a more reliable measurement.

Figure 1. WTP by Treatment and Decision



Notes: Error bars indicate 95% confidence intervals

Table 1. Linear Regression on Willingness to Pay

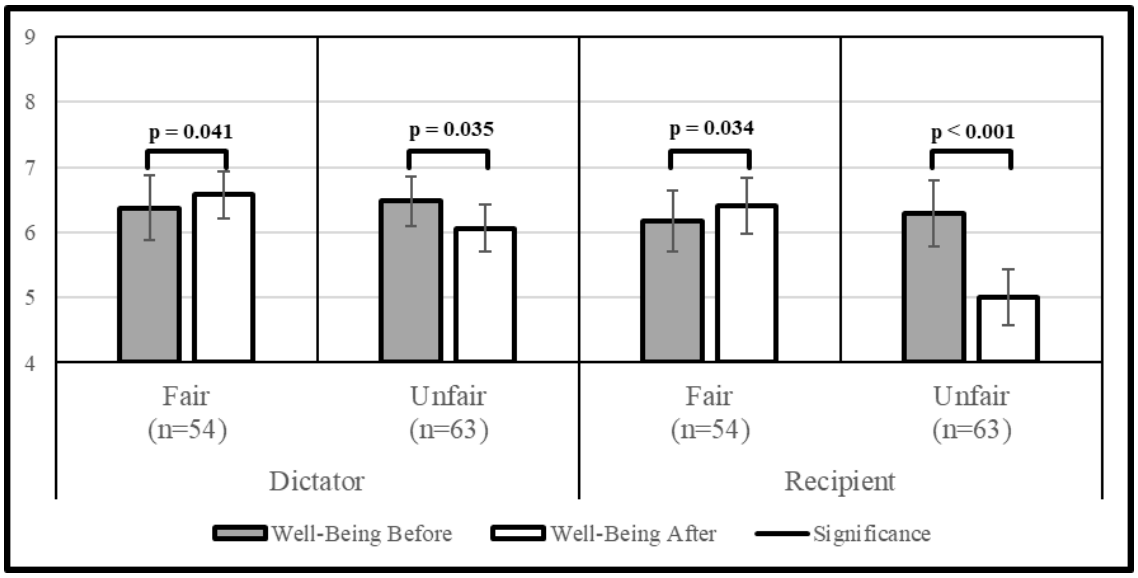
	Willingness to Pay	p-values
Pay-to-Get Treatment	-5.415	0.432
	(6.873)	
Fair Decision	-14.520	**0.026**
	(6.440)	
Pay-to-get Treatment X Fair Decision	26.404	**0.003**
	(8.785)	
Well-Being	-0.263	0.870
	(1.600)	
Arousal	0.780	0.490
	(1.127)	
Economist	-0.061	0.990
	(5.029)	
Male	5.431	0.252
	(4.716)	
Constant	12.313	0.378
	(13.901)	
Observations	117	

Notes: We report OLS model coefficient estimates with standard errors clustered on the individual level in parentheses. The dependent variable is the willingness-to-pay to either get or avoid feedback depending on the treatment by the dictators. Pay-to-Get Treatment is a dummy variable, which takes the value of 1 for the pay to get treatment and 0 for the pay to avoid treatment. Fair Decision is a dummy variable, which takes the value of 1 if the dictator decided for the fair option and 0 if he decided for the unfair option. We control for the self-reported well-being level, the self-reported arousal level, participants studying economics and gender.

3.3. Exploratory analyses: Well-being and arousal

We elicit emotional changes regarding well-being (negative/positive) and arousal (not excited/excited) using a 9-point SAM-scale three times during the experiment. We restrict our analysis to the first two elicitations to infer causal statements, which is, due to multiple paths, only possible to a limited extent afterwards[11]. Figure 1 depicts the results for well-being. At the beginning of the experiment, when we elicit well-being and arousal the first time, we find no differences between dictators and recipients (well-being: n = 234, z = -0.593, p = 0.553; arousal: n = 234, z = -0.670, p = 0.503, MWU). After the allocation stage is finished and allocations are revealed to recipients, the well-being of fair dictators significantly increases, while it significantly decreases for unfair dictators. Looking at the recipients, we find a significant increase in well-being, when dictators treated them fairly and a significant decrease, when treated unfairly. For the change in arousal, Figure 2 implies a significant decrease for fair dictators and a significant increase for recipients that were treated in an unfair way.

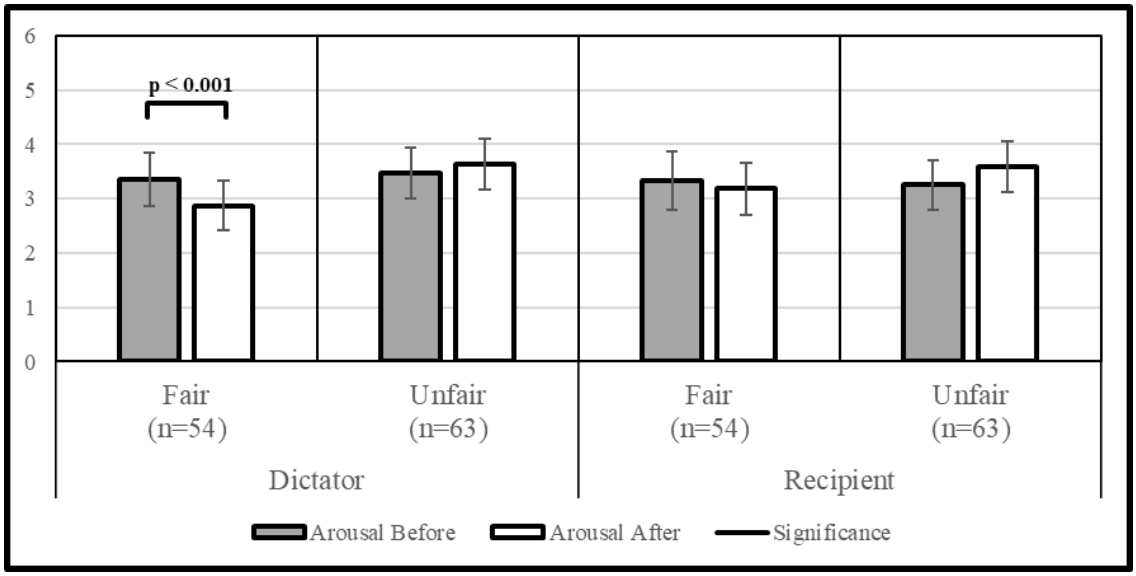
Figure 2. Change of Well-Being



Notes: Comparison of self-reported well-being level before and after the allocation decision. Assessment based on the 9-point SAM scale for well-being (negative-positive). Error bars indicate 95% confidence intervals; two-sided Sign test.

[11] Detailed regression analysis can be found in the online supplement. The analysis showed, except for a huge increase in well-being for fair dictators, which received feedback, only negligible insights.

Figure 3. Change of Arousal



Notes: Comparison of self-reported arousal level before and after the allocation decision. Assessment based on the 9-point SAM scale for arousal (not excited-excited). Error bars indicate 95% confidence intervals; two-sided Sign test.

3.4. Exploratory Analyses: Motivation for Bidding

In both treatments, we ask dictators about the motives for their WTP as well as recipients about their beliefs about the dictators´ motives.[12] The main motives stated in *pay to get* by fair dictators are curiosity (63%), the desire to give the recipient the possibility to express his/her feelings (36%) and the expectation to receive positive feedback (36%). The most frequently stated motives by unfair dictators for paying for receiving feedback are the desire to give the recipient the possibility to express his/her feelings (64%) and curiosity (55%). In *pay to avoid* the main motivation stated by unfair dictators are the expectation to receive negative feedback (83%) and feelings of shame or guilt (33%).[13] Furthermore, we see that the beliefs of the recipients correspond to the actual motives stated by dictators.[14]

[12] Two research assistants evaluated the statements independently without knowing about the experiment or the hypotheses. For that purpose, we provided them with a list of motives that are relevant for the derivation of hypotheses and they then checked whether these motives were mentioned by participants. In addition, the evaluators could build new categories, when this was necessary. For the analysis, we apply a conservative approach by considering only those evaluations where both evaluators came to the same conclusion regarding a particular motive. Since we do not put any restrictions on the free text the content can be assigned to multiple categories, and no assignment can be possible. A complete list of all statements and sent messages, as well as the categorization by the student assistants can be found in the Appendix online.

[13] Only one fair dictator exhibited a positive WTP for avoidance, but the stated motivation for that behavior could not be categorized.

[14] Precisely, recipients matched with fair dictators also conjectured that curiosity (36%), the desire to give the recipient the possibility to express his/her feelings (9%) and the expectation to receive positive feedback (55%) are the main motives for feedback. Recipients of unfair feedback from dictators conjectured that the desire to give the recipient the possibility to express his/her feelings (46%) and curiosity (69%) will be the main motives.

3.5. Exploratory Analyses: Message Content

In total, 58 messages were sent from recipients to dictators.[15] Most messages sent to fair dictators contain positive feedback displaying appreciation for the choice in the allocation stage (85%). In addition, one recipient expresses understanding for the dictator´s behavior, stating that he would have made the same decision (4%). The messages sent to unfair dictators mainly contained negative feedback (66%). However, an appreciable minority states understanding for the dictators' choice (20%).

4. Discussion and Conclusion

In summary, our results provide answers to our main research questions and hypotheses: First, both a significant fraction of fair dictators, but also of unfair dictators exhibit a positive willingness-to-pay to enable the recipient to give feedback in an allocation decision. Second, unfair dictators exhibit a willingness-to-pay to avoid feedback from their recipient, while this is not the case for fair dictators. These findings are consistent with our hypotheses.

Looking at the expectations of dictators regarding message content shows that our paradigm worked properly as dictators expected to receive social approval if they chose the fair option and social disapproval if they chose the unfair option. Second, we are confident that the WTP entered by dictators in the different constellations do not result from experimenter demand effects (Zizzo, 2010), as 27 out of 28 dictators who chose the fair option entered a WTP of zero for feedback avoidance.

The general demand for receiving feedback corroborates the importance of curiosity. Particularly, as this motive has been mentioned by the majority of fair as well as by the majority of unfair dictators, despite the fact that these two groups strongly differed regarding the expectations about the kind of feedback that they would receive. This is in accordance with literature that defines curiosity as an intrinsic demand to learn about the unknown, *independent* from its content (Golman and Loewenstein, 2015; Laffont, 1989; Loewenstein, 1994). We therefore complement this literature by identifying the importance of curiosity for an understanding of the demand for non-instrumental communication in allocation decisions.

Likewise, the fact that the demand for feedback decreases when dictators behave unfairly in the allocation decision is in accordance with models that assume individuals to trade off self-image with other concerns, e.g., material outcome (Bénabou et al., 2018; Bénabou and Tirole,

[15] 27 messages are sent to fair dictators and 31 to unfair dictators. The content is analyzed the same way as the motivations for the WTP in the previous section. Again, we only report what has been classified identically by the two research assistants.

2006; Bodner and Prelec, 2003; Grossman and van der Weele, 2017). We contribute to this literature by providing evidence that this trade-off also holds for non-material outcomes: our results suggest that individuals trade off the negative effect of information that potentially deteriorates self-image with the demand to satisfy curiosity by learning about the recipients' actual reactions.

The exploratory analyses of changes in well-being and arousal shed further light on emotional development between the stages. For example, in fair dictators, we identify a significant increase in well-being, but a decrease in arousal. This could be interpreted as satisfaction for being "nice" to the recipient or behaving in a socially respected manner. For unfair dictators, we find the opposite with respect to well-being. This might be interpreted as a result from feelings of guilt. Looking at the recipients, we find that subjects matched with an unfair dictator perceive a large decrease in well-being. One plausible explanation for this observation could be disappointment about the dictator's decision. Another possible explanation could be anger, which we nevertheless discard, since we do not find a significant increase in arousal.

We are aware that our experiment has some limitations. For example, some parts of the experiment are not incentivized, such as the elicitation of the recipients' guesses or the dictators' beliefs about the content of the messages. Furthermore, participants have been aware about the fact that feedback could potentially be distirbuted in the second stage. This might have had an effect on the allocation decision in the first stage, which in turn might have influenced the feedback decision in the second stage. As a result, dictators might have decided unfairly less often, compared to the situation where they would not have known about the upcoming feedback stage. This, however, should lead to an *underestimation* of the WTP for the avoidance of feedback, as those dictators whose self-image is especially vulnerable to negative feedback should be most prone to adapt their behavior in case of the presence of feedback. Such individuals would thus depend particularly strong on mechanisms that help them to avoid deterioration of self-image. In addition, the setting is consistent with most field situations as individuals mostly have the possibility to either self-select into environments with a particular feedback structure (i.e., feedback exists or not) or can adapt behavior depending on the structure of feedback that is present in a specific context.

We see three avenues for future research. First, it might be useful to take a closer look at the relative importance of the motives underlying the decision to receive or avoid feedback. Although our experiments identified the importance of each of the examined motives, our data does not allow to draw precise conclusions about the relative importance of the competing

motives. Further research on how people trade off motives such as curiosity and avoiding social disapproval could help understanding social interactions to a higher degree. Second, it might be interesting to shed further light on the desire to give the recipient the possibility for expression, a desire that has been mentioned both by fair and unfair dictators, i.e., independently from the expected content of the message. Third, given the results from Xiao and Houser (2007) and Ellingsen and Johannesson (2008) on the effects of costless post-decision messages on dictator giving, it might be interesting to study whether the effects of feedback on the dictator's decision change when dictators take a costly decision about the feedback option.

A Appendix

Table 2. Dictators' WTP by Allocation Choice

		Fair Dictators (n=54)	**Unfair Dictators (n=63)**	Test for difference in mean/median
Pay to Get (n=59)	Observations	26	33	
	WTP	15/26	15/33	p = 0.435, Fisher's exact test
	Share (WTP > 0)	58%	45%	
	Avg. WTP in €	0.22 (0.32)	0.11 (0.14)	z = -1.196, p = 0.232, MWU
	Avg. WTP in € (conditional on WTP>0)	0.38 (0.33)	0.23 (0.13)	z = -0.875, p = 0.382, MWU
Pay to Avoid (n=58)	Observations	28	30	
	WTP	1/28	8/30	**p = 0.026**, Fisher's exact test
	Share (WTP > 0)	4%	27%	
	Avg. WTP	0.00 (0.02)	0.17 (0.32)	z = 2.494, **p = 0.013**, MWU
	Avg. WTP in € (conditional on WTP > 0)	0.10 (n.a.)	0.62 (0.32)	z = 1.556, p = 0.120, MWU

Notes: All reported tests are two-sided. Standard error in parenthesis.

Table 3. Dictators' WTP by Treatment

		Pay to Get (n=59)	**Pay to Avoid (n=58)**	Test for difference in mean/median
Fair Dictators (n=54)	Observations	26	28	
	WTP	15/26	1/28	**p < 0.001**, Fisher's exact test
	Share (WTP > 0)	58%	4%	
	Avg. WTP in €	0.22 (0.32)	0.00 (0.02)	z = -4.290, p < 0.001, MWU
	Avg. WTP in € (conditional on WTP>0)	0.38 (0.33)	0.10 (n.a.)	z = -0.654, p = 0.513, MWU
Unfair Dictators (n=63)	Observations	33	30	
	WTP	15/33	8/30	**p < 0.001**, Fisher's exact test
	Share (WTP > 0)	45%	27%	
	Avg. WTP	0.11 (0.14)	0.17 (0.32)	z = -0.766, p = 0.444, MWU
	Avg. WTP in € (conditional on WTP > 0)	0.23 (0.13)	0.62 (0.32)	z = 2.919, **p = 0.004**, MWU

Notes: All reported tests are two-sided. Standard error in parenthesis.

Table 4. Recipients' beliefs about dictators WTP by Treatment

		Pay to Get (n=59)	**Pay to Avoid (n=58)**	Test for difference in mean/median
Expected Fair Dictator Behavior (n=54)	Observations	21	20	
	WTP	11/21	15/20	p = 0.197 Fisher's exact test
	Share (WTP > 0)	52%	75%	
	Avg. WTP in €	0.18 (0.26)	0.32 (0.31)	z = 1.812, p = 0.070, MWU
	Avg. WTP in € (conditional on WTP>0)	0.34 (0.28)	0.42 (0.28)	z = 1.053, p = 0.292, MWU
Expected Unfair Dictator Behavior (n=63)	Observations	38	38	
	WTP	22/38	17/38	p = 0.359 Fisher's exact test
	Share (WTP > 0)	66%	45%	
	Avg. WTP	0.20 (0.26)	0.21 (0.30)	z = -0.348, p = 0.728, MWU
	Avg. WTP in € (conditional on WTP > 0)	0.35 (0.25)	0.47 (0.27)	z = 1.818, p = 0.069, MWU

Notes: All reported tests are two-sided. Standard error in parenthesis.

Table 5. Recipients' beliefs about dictators WTP by Allocation Choice

		Fair Dictators (n=54)	**Unfair Dictators (n=63)**	Test for difference in mean/median
Pay to Get (n=59)	Observations	21	38	
	WTP	11/21	22/38	p = 0.786 Fisher's exact test
	Share (WTP > 0)	52%	66%	
	Avg. WTP in €	0.18 (0.26)	0.20 (0.26)	z = 0.448, p = 0.654, MWU
	Avg. WTP in € (conditional on WTP>0)	0.34 (0.28)	0.35 (0.25)	z = 0.193, p = 0.847, MWU
Pay to Avoid (n=58)	Observations	20	38	
	WTP	15/20	17/38	p = 0.051 Fisher's exact test
	Share (WTP > 0)	75%	45%	
	Avg. WTP	0.32 (0.31)	0.21 (0.30)	z = -1.754, p = 0.080, MWU
	Avg. WTP in € (conditional on WTP > 0)	0.42 (0.28)	0.47 (0.27)	z = 0.498, p = 0.619, MWU

Notes: All reported tests are two-sided. Standard error in parenthesis.

Table 6. Probit Regression on Fair Decision

	Fair Decision	p-values
Pay-to-Get Treatment	-0.143	0.555
	(0.241)	
Well-Being	-0.043	0.606
	(0.084)	
Arousal	-0.028	0.675
	(0.067)	
Economist	-0.627	**0.031**
	(0.291)	
Male	-0.423	0.081
	(0.242)	
Constant	0.689	0.302
	(0.668)	
Observations	117	

Notes: We report probit model coefficient estimates with standard errors clustered on the individual level in parentheses. The dependent variable is the decision for the fair outcome by the dictators. We control for the two different treatments, participants studying economics and gender.

B Online Appendix: Instructions and Raw Data

The German version and an English translation of the instructions can be found online at (*set up after publication, see supplemental files*). The repository also includes the raw data, and also a replication code to generate the analysis and tables presented in this paper.

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